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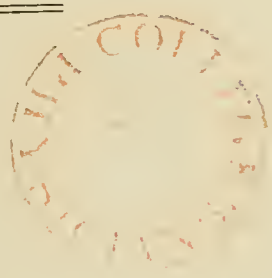

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ORIGINAL LECTURES.

ON THE INFLUENCE OF THE NERVOUS SYSTEM ON DISEASES OF THE ORGANS AND TISSUES.

By THOMAS LAYCOCK, M.D., etc.

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(*These lectures have been revised, and somewhat extended, by Dr. Laycock.*)

Lecture IV.

THE TROPHIC CLINICAL ANATOMY OF THE CEREBELLUM AND MEDULLA OBLONGATA.

Although the subject is full of difficulties, I will endeavour to give you an outline of a trophic clinical anatomy, being satisfied that even an imperfect anatomical basis will both give more precision to your observations and render them less difficult, while at the same time it will tend to counteract that mischievous vagueness which hangs about all observations of this class. Such anatomy should enable us to determine both the seats and the causes of the changes in the nervous system which influence morbid states of organs and tissues, and which consequently regulate chemical and vaso-motor action. It should also include the seat of those appetites by which the kind and quantity of nutritious materials supplied to the body are regulated, the nervous apparatus by and through which bodily feelings and mental states influence corporeal conditions, and the seats of the processes by which both mental and corporeal tendencies are transmitted hereditarily. This as to anatomy. As to causes which influence the functions of the nerve-centres, there are two kinds—namely, changes in the supply of blood and in its qualities, and changes in the properties of the nerve-tissue itself. The latter I shall not touch on at all; as to the former, I shall give you a new scheme of study. In the first instance, however, I will endeavour to specialise these trophic centres clinically.

There is a numerous class of sensations and feelings well known as "corporeal," which are, in fact, trophic. Such are the feelings of hunger and thirst, and their various modifications, and the feelings of bodily comfort and discomfort, of strength and of weakness, and the like, to which I referred in a previous lecture. These states of consciousness, whether normal or abnormal, indicate that there is a special *sensorium commune*, in which the conditions of organs and tissues as a whole, and the morbid changes therein, are so represented to the consciousness as to induce these feelings, to the end that a proper supply of nutrient materials and a due accumulation of energy for the purposes of life may take place. There is so much unity of function of diverse organs in the actions necessary to these trophic ends, that it is difficult to avoid the conclusion that there is a trophic centre, or series of centres—a sort of corporeal *sensorium commune*—corresponding to the mental or intellectual. In particular, there must be a point where the feelings of bodily strength and health, and those of weakness and illness are felt. The hypothesis that the seat of these is diffused over the whole body is so contrary to facts, as well as to all analogy, that we need not consider it. Where, then, are the nerve-centres which subserve to the feelings of ease and pain, of health and strength and weakness, and which regulate trophic and vaso-motor changes? I fix them in the medulla oblongata, pons, and cerebellum, and I look upon the cerebellum as more especially the reservoir and source of motor or executive vis nervosa, and the great sympathetic vaso-meter and trophic centre of the body, including the brains. The arguments in favour of these views are detailed in my Psychological Course, and are to be found in the text-book.(a)

Unfortunately, in the study of the functions of the cerebellum we derive little direct knowledge from the states of consciousness, simply because, as the centre of organic life, it has no *direct* relations to special conscious states, although it has close functional relations with the brain along the *processus à cerebello ad testes*. Nor is it easy to mark out the line of physiological activity along its three bilateral sets of commissures—viz., the spinal or inferior, the cerebral or superior, and the unifying or middle commissures—the crura cerebelli, and pons. I think there are grounds for concluding that in many cases of general nervous debility, as distinguished from the weakness due to imperfect supply of food, drink, and nutrient materials, and to loss of blood and the like, there is defective functional activity of the cerebellum, and therewith defective evolution of vis nervosa, of which it is, as it were, the storehouse; just as muscular fibre stores up muscular energy. It is, I think, exhaustion of this store that causes the feelings of languor, the desire for rest after much labour (not the aches of weariness, which are derived from the exhausted muscle), and the need for sleep and rest, so as to reaccumulate energy, and replace exhausted materials. It is through the connexions of the cerebellum with the genito-spinal centre that nervous debility is so often associated with exhausting sexual excesses, and with renal and utero-ovarian disorders. The results are very various because of the multitudinous relations of the cerebellum: while in some persons local diathetic diseases like gout, rheumatism, and syphilis may be induced, in others there may be central neuroses like epilepsy, catalepsy, hysteria, insanity. It is probable, too, that various trophic drugs—the so-called stimulants—act through the cerebellum, and more especially opium, alcohol, and "bitters."

This view does not exclude the fact that the brain and spinal cord and the special nerves and nerve-centres have each their own stores of vis nervosa; for when any one of them, whether motor or sensory, is subjected to exhausting conditions, the results of nervous debility follow. Snow-blindness is an example of local sensory exhaustion from excess in use, as "writer's spasm" is of motor exhaustion. Tissue-changes, wholly local, thus arise from nervous debility of special trophic nerves and spinal nerve-centres; as illustrations may be mentioned sympathetic ophthalmia, herpes zoster, local œdemas, and local pigmentations. It is, indeed, as to the diagnosis of these local affections that a clinical trophic anatomy is so important; for even when the nervous debility is general, the morbid results are not manifested locally as disease or disorder of nutrition until either an exciting or predisposing local cause takes effect. In injury of one eye, for example, there may be no morbid diastaltic action on the other eye as a result until a general morbid state is induced; when that comes on the local predisposition takes effect, and inflammation of the sound eye follows. In this way many latent causes of local disease become manifest when either trophic debility is induced generally or of a particular nerve-centre. Now it is impossible with our present knowledge to allot particular functions to particular lobes of the cerebellum; all we can affirm is that it is as highly evolved and apparently as complex a structure as the cerebrum, including the hemispheres.

If we endeavour to determine whether the cerebellum belongs specially to the corporeal or the intellectual system, we at once solve that question by its embryological anatomy. It is plainly a differentiation of the medulla oblongata, and the medulla oblongata is as plainly an aggregate of corporeal centres in relation with it, with the pons, and with the brain and hemispheres above. The medulla oblongata is in the line of physiological activity of all the sensory nerves from the body below, and of all the fibrils coming from the mental region above. It is equally the seat of all these centres which regulate the functions of the heart, lungs, stomach, and their appendages; so that in this, as a group of co-ordinated centres, we can fix the merely bodily feelings as distinct from ideas or notions of things, and of some, at least, of the corresponding movements. Cut off communication with the mental region above by complete division of the crura cerebri, and there remains a group of corporeal centres intimately connected with each other, which I term the occipito-spinal area. Of this group the cerebellum is the chief, having its own proper connexions with the brain proper or cerebrum.

Now, as to the body generally, after including the viscera of the thorax and the stomach and liver, we can limit our attention of the trophic relations of the medulla oblongata to the skin and limbs. From the skin come the afferent trophic nerves of temperature, of corporeal pain, and of the chemical condition of the tissue and glands. As I previously remarked, it is necessary to distinguish the nerves of sense proper going along the medulla oblongata to the hemispheres from the afferent trophic nerves—such, for an example, as the nerves of touch, and of sense of resistance or weight. These latter, arising in the muscular

(a) We may therefore conclude:—1. That the cerebellum, in virtue of the decussation of all its commissural fibrils, is a central unifying organ. 2. That it is not the unifying organ of thought and will, and must therefore be the unifier of organic or vegetative life. 3. That it is in the same relation to the anterior and antero-lateral column of the cord as the lateral and posterior grey matter. 4. That, having probably similar functions, it influences all the motor functions of the cord, and through these all the vital activities of the body, including temperature, secretion and excretion, nutrition of muscular and other tissues, and co-ordination of cardiac, vaso-motor, and muscular activity.—"Mind and Brain." Second edition. Vol. ..., p. ... 3.

system, have probably a wholly different centre than the sense of muscular ache or such pain as is felt in muscular rheumatism. But even as to the cerebral sensory nerves, we must distinguish between those fibrils which go to motor centres like the cerebellum, so as to regulate and co-ordinate the action of muscles, and those which go to the hemispheres and subserve to perception and thought. These distinctions will enable you to understand how and why the æsthesiometer helps us to determine the condition of trophic centres, and why we should distinguish thermal and algic insensibility from touch-palsies.(b)

Let us now take up the clinical anatomy of the trophic appetites and the chemical centres. The appetites are desires for things which supply energy—such as heat, chemical affinity, and vis nervosa—and as to the supply of which, organs and tissues are regulated chemically. Are there, then, special nerves and nerve-centres in the medulla oblongata with the function of regulating the supply? The discovery of Claude Bernard that injury to the medulla oblongata at the point corresponding to the floor of the fourth ventricle caused sugar-production, threw an entirely new light on organic chemistry; and this became greater when it was ascertained that the sugar was produced in the liver. Until these discoveries, the Profession was wholly in the dark as to the true nature of diabetes mellitus, so that the treatment was founded on wholly diverse and contradictory hypotheses. The sugar (or something sweet), produced neurotically, is found in the blood as well as in the urine; but it is most readily observed as glycosuria, and the urine has, therefore, been examined, and found to contain something sweet in numerous disorders in which the trophic centres are involved, as, for example, "nervous" attacks, hooping-cough, ague, injuries to the head, and diseases of the crura cerebri, optic thalami, and medulla oblongata. I might add the glycosuria caused by curare, carbonic oxide, and chloroform.(c)

Water is an essential constituent of all living tissues, whether vegetal or animal. In neurotic disorders of nutrition (or trophesies), what are termed the animal appetites for food and drink are often modified—eminently so in fever, in dropsies, and in diabetes, as to the water appetite or thirst. The theories of thirst in fever have been invented without any relation to the thirst of dropsy, and the thirst of diabetes, whether as to insipidus (polyuria) or mellitus (glycosuria), discussed independently of both. That of diabetes mellitus has had various explanations, all having, chiefly, reference to the glycosuria as a cause. An experiment made by Claude Bernard helps us to a simple explanation. He caused polyuria (hydruria) by puncturing the medulla oblongata a little below the point where injury causes glycosuria. Schmiedeberg produced it (as well as glycosuria) by the inhalation of carbonic oxide. It is to this class of phenomena that we can refer the copious flow of limpid urine in hysteric convulsions and in various neuroses in which the genital or urinary system is a starting-point. The thirst caused by corporeal injury, with or without pain, and which distresses the wounded so much on the field of battle, seems to belong also to this class. To understand the practical bearings of these experiments, it is necessary to remember that, like heat, the water in the organism is a fixed quantity, and that there is probably, therefore, a regulative apparatus to maintain it at the healthy or normal amount. If there be too much, it is excreted by the skin or the kidneys, or both; if too little, the desire for it occurs as thirst. When I come to speak of dropsies, I shall show you that the thirst is diastaltic, and probably due to a renal hyperæsthesia, just as experiments show that the condition of the splanchnic nerves influences the production of glycosuria and hydruria. At present, I would only remark that the thirst in both kinds of diabetes (which in other cases, when there is no sugar or urea in excess in the urine, is termed polydipsia) is probably a neurosis of this water-centre; so that one reason why patients in dropsies, as well as in diabetes, pass much urine is that they drink much. Further, a neurosis of this regulative centre may induce the abnormal production of water from the tissues themselves; for I can confirm the observation made by numerous observers, that more water is excreted in some cases of diabetes mellitus than is imbibed. Something analogous seems to occur in fevers, for Dr. Parkes found more water to be used up in fever than is taken. The production of water in the tissues of plants has not, so far as I know, been investigated; but we know it is stored up in them under circumstances which render it difficult to explain its origin *ab extra*. The appetite for food is so frequently modified in numerous diseases, that it requires special notice. Anorexia is so common, that I cannot enter upon the theories of its origin; the rarer neurosis of this kind is *bulimia*.

The ravenous appetite of the diabetic patient is obviously explained most easily by the loss of nutriment through the kidneys; so, also, the atrophy, the too frequent concurrent tuberculosis, and the low temperature. I must, however, express my doubts as to the validity of these explanations, for there are reasons for the opinion that, like the thirst, they are neurotic—at least, in part. When we remember that if, in fevers, in diabetes, and perhaps in phthisis, water be produced at the expense of the tissues from neurosis of the water-regulating centre, we can easily understand that, as the hydrogen of the water must be taken from the hydrocarbons or fats, and the oxygen diverted from its proper uses, there may be a general atrophy as the result of a trophic chemical neurosis, independently of manifest cause of wasting disease. From this point of view, phthisis, malignant disease, and chronic suppurative and exudative inflammations are to be classed together as wasting diseases having a common cause of waste. We can also see how cases of diabetes mellitus may—as, indeed, they do—differ according as there is waste of food and tissue in the abnormal production of water, or there is not.

(*To be continued.*)

(b) Dr. Laycock has had an æsthesiometer made which helps to distinguish these three kinds of sensibility of the skin.

(c) The most recent and valuable contribution of this kind is a paper, read on February 8, 1870, to the Royal Medical and Chirurgical Society of London, by Dr. W. H. Dickinson, "On certain Morbid Changes in the Nervous System associated with Diabetes."

CLINICAL REVIEW.

By GEORGE W. CALLENDER, F.R.S.,
Surgeon to St. Bartholomew's Hospital.

GENTLEMEN,—By using the term clinical review I wish to indicate the precise character of the matter we shall consider together during the present session. Whilst visiting the wards we can see our patients under treatment, observe the progress which they make, and in the end take note of the results. Here, in this theatre, I shall pass these cases in review, in order that we may criticise their management, consider how (if possible) better results might have been attained, examine the difficulties which occasionally interpose to thwart the best-reputed plan of treatment, and inquire into those matters of detail which arise in well-nigh every case, and which, whilst they are unavoidably passed by in systematic lectures on injuries and Surgical diseases, call for particular notice in relating the history of individual cases. To-day we will review the cases which are at present, or quite recently have been, in the back ward of Harley.

The first patient, on the left-hand side on entering the ward, is a male aged 62, who fell, and, besides other severe injuries, dislocated the sternal end of the left clavicle forwards. Mr. Young was able, the day after the accident, to reduce the dislocated bone by manipulation—that is, by pressing the shoulders back, and thus drawing the sternal end of the clavicle off the breast-bone; but, on the remission of pressure, the clavicle started forward, though to a less extent than before. As soon as the patient could bear the confinement, an old-fashioned apparatus (Brasdor's) was applied for the purpose of keeping up continuously the back-drawing of the shoulders; but our patient could not tolerate its use, and so we were obliged to be content with the partial reduction which had been from the first effected. If you now examine him, you will easily recognise the furcula or inter-clavicular notch, and then, to the left side of this you will feel and see the end of the collar-bone projecting forwards of its natural position, and the immediate surroundings thickened so as to make the displacement appear greater than it really is. This patient will have a thoroughly useful arm, so far as this hurt is concerned, and when the induration about the sterno-clavicular joint subsides, as it probably will, there will be no notable disfigurement.

But could we have done more towards completely reducing and holding reduced the dislocated bone? In this instance we could not, by reason of the patient's inability to bear restraint, or even slight pressure against the displaced clavicle. Nor, indeed, is it in any case easy to ensure permanent reduction of such a dislocation as this, of a joint of which the entire holdfast lies in the strength and integrity of its ligaments. You cannot look at any specimen of the joint such as the one before us without seeing at a glance how little support it has from apposition of its surfaces, which, separated by this fibro-cartilage, easily glide backwards or slip forwards after tearing of the supporting ligaments. By keeping the patient on his

back, and so allowing the weight of the arm to drag upon the clavicle, it is possible some help towards retaining the bone in position might have been gained; but with our patient this was out of the question, as his other troubles hindered him from lying down.

This man displaced his clavicle through falling on the front of his left shoulder. Some few of the instances of this displacement which I have seen have followed blows upon the sternum. One man had this bone shattered by a kick from a horse, and both clavicles were thrust forward, and could not be replaced. And this, too, is the direction which the displacement usually takes when following any such injury as in the case before us. Here is a specimen from our museum,(a) in which the bone is dislocated forward and downwards from the sternum, the luxation being complete; and in Guy's museum(b) there is a specimen in which the displacement is forward and upwards. When the dislocation is complete the bone is usually displaced downwards; when it is incomplete, the clavicle is most often thrown up towards the neck. I need scarcely remind you that in the rarer form of displacement of the sternal end of the clavicle backwards, an instructive example of which has been narrated by Mr. De Morgan,(c) serious symptoms may arise from pressure of the bone upon important structures at the root of the neck.

It of course more frequently happens that, from a fall on the shoulder, the clavicle breaks about its middle third; and a few beds from our first patient there lies a man who has suffered this amongst other hurts. He is a fireman, who, whilst on duty, fell through a skylight. Mr. Young tells me that well-nigh the half of his scalp was torn off, from the forehead to the occiput, and that the wound extended below the mastoid process into the neck, where a good deal of blood was extravasated. This great flap, hanging by its base, was replaced after being cleansed, and was secured by wire sutures. We fully expected some after-trouble, but the man was young (19) and healthy, and this large wound healed throughout, so that its fastenings have remained undisturbed to this day—three weeks after the injury.

His broken clavicle could not be well set, the acromial end standing forward with a sharply-pointed extremity, and for some days we were unable to get him to lie down, as he was troubled with bronchitis, whilst his other hurts were such that he could not bear the restraint of bandages. Now that he is recumbent, the weight of the arm and shoulder is drawing out the acromial end of the clavicle, and eventually the malplacement will be inconsiderable. Here is a case in which we were quite unable to follow out the prescribed method of treatment for an injured clavicle, because of the grave hurts with which it was complicated, amongst which may be mentioned, besides those already referred to, a comminuted fracture of the left patella.

Amongst other examples of broken bones, there are in the ward two cases of delayed union very unlike, but both instructive.

This term "delayed union" is, I believe, the only one admissible in the vast majority of cases in which a fracture is reputed to have failed in its repair. There are some few cases in which union is prevented by portions of muscles, or by fragments of bone, detached and becoming necrosed, which interpose between the broken ends; and there are cases in which osseous union is forbidden by the distance which separates the broken pieces, as in certain transverse fractures of the patella. But in all cases in which the bone-ends of the fracture are fairly brought together, their union, if they are left at rest, is only a question of time; but if they are moved occasionally, or incautiously handled, then their union is retarded, or, if such bad treatment is persisted in, may even be altogether prevented.

There are some fractures which, more than others, require care in their management, lest union be interfered with. Amongst such, very oblique fractures of the tibia and fibula occur to me. A long time must elapse—perhaps seven or eight weeks—before union is sufficiently firm to resist the tendency to gliding when the weight of the body comes to press on the slanting surfaces. I have seen several instances in which repair has been undone by too early a use of the limb under such circumstances, although time enough had been allowed for the repair had the cases been examples of transverse, or less oblique, fracture of the bones. Amongst such, too, may be counted fractures of the lower third of the humerus, which, it is known, are liable to be unset by the attempts made, often prematurely, to restore elbow-joint movements. The fracture must be very firmly united before we try to set to rights any stiffness of the elbow.

The first of the two cases is that of a man, aged 21, who broke the bones of his right leg just above the ankle, and the tibia again in its upper third. At the end of five weeks union was imperfect. The fracture was again put up, and some phosphate of iron was prescribed for the patient; but it was ten weeks before repair was sufficiently good to allow of his going to his home. We were not surprised at this slow recovery; it always follows when the blood-supply in a limb is interfered with—for instance, when, from bruising of the tissues and plugging of veins with clots, the venous system is so obstructed that the limb becomes and remains œdematous or hard and brawny. But in the case before us the fracture in the upper part of the tibia had, no doubt, involved the great nutrient artery, which you may see, in this bone, passing near the popliteal line, through this large medullary foramen, directly downwards into the cancellous tissue; and we conclude that, despite the reparative power of the periosteum and in the shaft above, firm union was not attained until the circulation had been restored in the lower portion of the shaft, so that this part of the broken bone could bear its share in the process of reunion.

The second patient occupies the last bed in the ward on the left-hand side, and I will read you the notes of his case, which have been drawn up for us by Mr. Payne. He is 52 years of age, and on February 20 was admitted into Kenton Ward with a fracture of the lower third of the leg, both bones being broken, and the fracture extending into the ankle-joint. The internal lateral ligament was also torn, carrying with it the internal malleolus, and thus the foot was easily displaced either inwards or outwards. It was found necessary to divide the achilles tendon before the foot could be brought into good position. One week after the accident he became violent and delirious, and during the night displaced his leg from the splints, and so gave rise to a severe attack of phlegmonous erysipelas, causing great sloughing of the skin, and converting the simple into a compound fracture. On March 25, his pulse, which had been at 120, with a temperature of 104°, fell to 92, and the next morning to 84, the temperature ranging from 99° to 99·6°; and I then decided, in consultation with some of my colleagues, to amputate the limb. The patient, however, refused to submit to the operation, and from this time he very gradually sank, so that now (three months after the receipt of the injury) he is in a most feeble condition, the injury to the limb unrepaired, and with effusion, probably of a pyæmic character, into the opposite (right) knee- and ankle-joints. The time for an amputation has now passed by.

Let me refer to the reasons which led to our advising amputation of the limb on March 26. The damage to the tissues, including the sloughing of a large tract of skin and the converting of the fracture into a compound one with the ankle-joint laid open, seemed to be greater than the patient at his time of life could possibly repair. We watched him until he rallied out of his delirium. He seemed to steady himself, his temperature dropped nearly 5°, his pulse became not only less frequent but was natural in volume, and his digestion and other functions fell into fair working order. Then the time most favourable for the operation seemed to have arrived. Later on, the exhaustion consequent upon suppuration and upon the endeavour to repair so great a local injury has been such that no opportunity for again raising the question of amputation has been given us; but, from the great effort nature has made in this case to effect a cure, I feel satisfied the patient would have made a good recovery after the operation. Firm union of the broken bones could scarcely be hoped for in the exhausted state of this poor man—with suppuration, too, in progress about the site of the fracture, to say nothing of the extreme difficulty we have experienced in keeping the parts at rest and in good position—and I need scarcely again remind you that without rest it is hopeless to expect osseous union of fracture of the tibia and fibula.

Opposite to this patient is a man, aged 53, with compound fracture of the bones of the left leg. Although I anticipate for him a good recovery, yet you will observe for yourselves that the condition of the limb six weeks after the hurt is not altogether satisfactory; there is some discharge from the wound, and there is a blush of redness around it which extends for some distance over the limb. The fracture was comminuted, and possibly some fragment of bone has necrosed, and is causing the irritation. Could we feel any such piece of bone we should remove it, provided that the operation did not necessitate any great disturbance of the parts; as it is, it seems best to leave the parts at rest, and to allow the necrosed bone,

(a) Series iii., 97.
(b) Specimen No. 1292, 90.
(c) "System of Surgery," vol. ii., p. 805.

if there be any, to work its way out. It is possible, however, that there may have been some suppuration extending along the course of the extensor tendons, and the irritation thence arising may have retarded repair. However this may be, here is another example of delayed union, for at the end of the sixth week the bones are not fairly joined together; so we have put up the fracture for another three weeks, and at the end of this time the bones will, without doubt, have firmly united.

ORIGINAL COMMUNICATIONS.

NOTES ON THE PATHOLOGY OF MALIGNANT NEW GROWTHS.

By HENRY ARNOTT, F.R.C.S.,
Assistant-Surgeon to the Middlesex Hospital, and Lecturer on Surgical Pathology in the School.

III.

CARCINOMA—(*continued.*)

Microscopic Appearances modified by Tissue affected, as Muscle, Bone, etc.—Villous Cancer—Hæmatoid Cancer, or Fungus Hæmatodes—Melanotic Carcinoma—Colloid.

BEFORE entering upon the brief consideration of the varieties of carcinoma to which have been assigned special names, some notice should be given to the modifications caused by the locality or tissue affected by the growth. It has been already said that the secondary growths met with in the liver or lungs are, as a rule, more richly cellular than the primary tumour, but, excepting that the stroma is less obvious, there is very little other difference discernible, either in the form or size of the cells, or in their arrangement. Sometimes, when the development of these secondary tumours is exceedingly rapid, an unusual preponderance of the small cells before described may be met with. I have seen, for instance, a very rapidly growing carcinoma recurrent near the scar of an amputated breast, in which the cells were so uniform in shape and so small in size, that it would have been very difficult to name the growth at all without the aid afforded by the examination of the primary tumour. In the outlying pea-like nodules which occasionally occur in the pectoral muscles beneath a scirrhous breast, and which afford such beautiful opportunities for the study of the infiltrating characters of carcinoma, it often happens that the bulk of the tiny mass is made up of these small "indifferent cells," and there is merely a trace of the alveolar fibrous stroma so characteristic in mature carcinoma.

Carcinoma affects bone either in the form of distinct tumours or as an infiltration of the bone with cancer elements, so as to affect its consistence rather than the shape of the bone. In such cases of bone-softening in connexion with cancer elsewhere as I have had the opportunity of examining, I have seldom been able to detect any cancerous elements, but occasionally one meets with instances of considerable deformity of the flat and long bones occurring either as primary or as secondary carcinoma. In such cases, there is an abundant milky juice to be scraped from the section of softened bone, and in this juice are just such cell-forms as are commonly met with in the juice of a scirrhous tumour. Very thin sections of bone so diseased show groups of such cells enclosed in spaces corresponding to the Haversian spaces of the original bone; but, besides this, the osseous lamellæ are occasionally found to be divested of calcareous matter, and to form a fibrous stroma very like that of ordinary carcinoma, the lacunæ being swollen into groups of new cells in some parts as though these cells resulted from the proliferation of the original lacunal cell. To follow up in detail the modified appearances of carcinoma as they are altered by the tissue affected, however, would lead us beyond the scope of these notes. With the brief suggestion that the statement of Virchow, as to the absence of any visible intercellular material being an essential condition of true carcinoma, is probably not to be received without exception, since one occasionally meets with instances of undoubted scirrhus of the breast in some parts of which a certain amount of granular material separates the cells, we may pass on to the notice of those named varieties of cancer whose distinguishing characteristics are really caused by degenerative processes or other accidental conditions.

Villous Carcinoma has been described, but is, I fancy, an extremely rare variety. Malignant villous tumours are almost invariably associated with epithelioma rather than with carcinoma, and are met with on such mucous surfaces as are normally villous—the villi, owing to the disturbed nutrition of the part, becoming greatly hypertrophied. Certainly many tumours which are called villous cancers are simply due to a more or less active overgrowth of the healthy villi of the part, which may give rise in the bladder or rectum to large masses of velvety substance, forming beautiful objects when floated out in water, but having no trace of malignancy about them, either in their anatomical structure or clinical history.

At the same time it must be mentioned that villous tumours of the bladder and elsewhere have been described by Prof. A. Luecke and others, in which groups of carcinoma cells were imbedded in the fibrous matrix of the papillæ; and such growths would be quite rightly named villous carcinoma.

Hæmatoid Carcinoma or Fungus Hæmatodes may be dismissed with a very few words. Very soft and rapidly growing tumours, whether carcinomatous or sarcomatous in type, are supplied with very delicate capillary networks, and these fine vessels, when separated by careful washing from the cell-elements of the growth, are seen to be variously dilated, the vessel wall yielding in the direction of least pressure. This is particularly the case where fatty degeneration advances as rapidly as the cell-proliferation, and it is specially in such instances that, the vessels bursting, large quantities of blood are poured out, and by their subsequent changes diversify with such rich colours the cut surfaces of these growths. It is obvious that this accidental hæmorrhage is an insufficient ground for according a special name to tumours exhibiting it, for precisely the same thing happens in a greater or less degree with every soft new growth.

But I will take this opportunity of directing attention to those growths occasionally met with, in which the blood so poured out plays so important a part amongst the various characters of the tumour that the elements of the new growth are in danger of being overlooked. I have twice seen tumours of this kind, each time in the ham or lower part of the thigh, and both times with similar symptoms. A swelling had been present for some weeks or months, and latterly had rapidly increased. It presented all the signs of a cystic growth or large abscess, but on making an exploratory incision a stream of pure blood flowed forth, and the Surgeon thought that he had opened an aneurism. On pressing upon the artery in the groin and enlarging the opening, a large sac of blood was discovered, with clot-layers enclosing it, and in one case the Surgeon was with difficulty induced to believe in the true nature of the disease, and amputate the limb. In both cases, however, a comparatively insignificant basis of spindle-cell sarcoma was found infiltrating the muscular tissue, and it was from the new vessels of this growth that the blood had evidently been poured.

Melanotic Carcinoma.—This form of disease is exceedingly rare. The great majority of cases of "black cancer" are really instances of sarcoma, and will be referred to with the other sarcomata. When a true carcinoma is melanotic, the black tint is due to a certain proportion of the cells containing granules of pigment; but almost all the dark nodules in carcinomatous growths which have come under my own observation have derived their colour from the changes resulting in blood extravasated into the part, and could not be strictly classed with melanotic growths at all.

Colloid Carcinoma.—This very interesting variety is probably much less common than is usually affirmed, for most English Surgeons have unquestionably been in the habit of placing in this class those purer forms of mucous tumour or myxoma which bear to the naked eye a close resemblance to jelly, in the clear flickering masses in which these growths are sometimes met with. True colloid also owes its characters to the presence of mucus, but in the form of a degeneration; and a colloid tumour bears to a myxoma the same relation that a fattily degenerated fibrous tumour does to a lipoma.

Thus it is that, besides such very characteristic examples of colloid cancer as have been best described by Mr. Sibley, in his well-known paper in the *Medico-Chirurgical Transactions*, we meet with colloid nodules in many examples of carcinoma, and also in cases of epithelioma; and even occasional single cells are sometimes the seat of this change, appearing amongst the polymorphous carcinoma cells, with large refracting clear spaces within them, distending the whole cell, or giving the impression of a greatly dilated nucleolus. Where this change is general, a peculiar jelly-like aspect is imparted to the growth, which can yet be seen to be a genuine infiltration. Thus, I have seen a portion of a very extensive colloid carcinoma in the abdomen (its usual seat) distinctly infiltrating

the muscular tissue of the uterus, growing from the peritoneal surface, and invading the organ to a depth of some lines. The effect of this accumulation of mucus within and between the cells is to alter the microscopic appearances as greatly as the coarser characters. Single oval cells become enormously distended, the nucleus remaining near the periphery, and the rest of the swollen cell being marked with faint concentric lines (possibly indicating successive stages in the mucous accumulation), and in this way a figure resembling an oyster-shell is produced (Fig. 10.). When a multi-nucleated cell is affected,

Fig. 10.

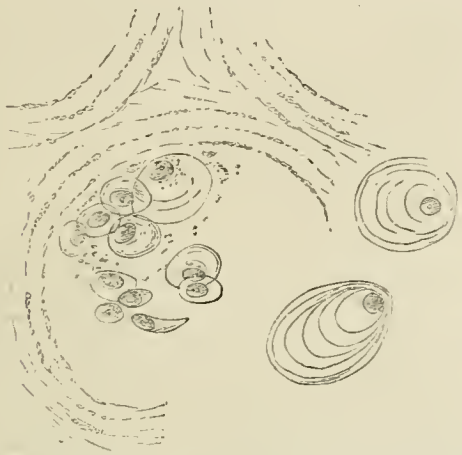

Fig. 10.—Colloid carcinoma. The two detached cells exhibit in a marked degree the change which has affected to a less extent those still grouped in an alveolus. From a colloid of the stomach. Magnified 220 times.

the group of nuclei is surrounded by the same crease-like lines, and when, from the over-distension of many cells, a distribution of the contained mucus through the stretched alveoli takes place, large spherical spaces are formed, in which the remains of cells and nuclei in the centre are surrounded by these singular concentric faint lines, so that a microscopic portion of carcinoma so affected reminds one strongly of a sheet of still water, into which a few pebbles have been tossed, throwing the calm surface into a series of circling ripples, which gradually fade into one another, and are lost (Fig. 10). The fibrous stroma, however, may remain comparatively unaffected, although much stretched, and broad tracts of waving fibres with oat-shaped nuclei may be traced mapping out the growth into round or oval alveoli of various dimensions (Fig. 11).

Fig. 11.

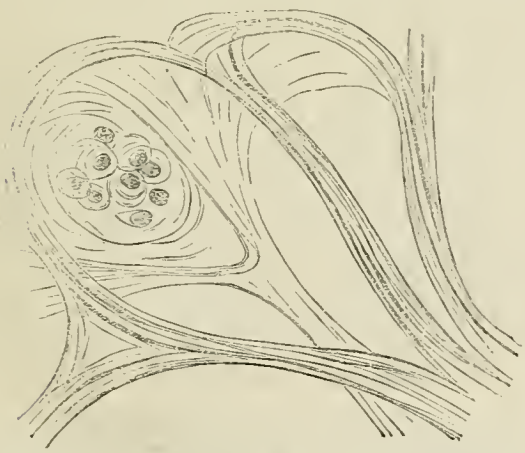

Fig. 11.—Colloid carcinoma, showing the fibrous stroma, whose spaces are filled with clear mucus. At one point, a few cells undergoing the colloid degeneration are shown. Magnified 220 times.

This appearance has gained for the tumour the name "alveolar cancer"; but it has been shown in a former "Note" that all carcinoma is essentially alveolar. It is only that here, the alveoli being distended with a clear fluid, their arrangement is more clearly discernible.

CLINICAL REMARKS
ON THE SEVERAL FORMS OF PULMONARY PHTHISIS.

By R. DOUGLAS POWELL, M.D., M.R.C.P.,

Senior Assistant-Physician to the Hospital for Consumption and Diseases of the Chest, Brompton;
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(*Continued from page* 658.)

Alveolar Catarrh—May advance to Catarrhal-Pneumonic, or Tuberculo-Pneumonic, or Tuberculo-Fibroid Phthisis, very amenable to treatment—Diagnosis—Illustrative Case of Catarrhal-pneumonic Phthisis in an Early Stage—Comments on Etiology, Prognosis, and Treatment.

It would hardly be instructive to give an illustrative case of Alveolar Catarrh in the first and slightest degree, that condition which forms the connecting link between the prodromal catarrh of Niemeyer and catarrhal pneumonia. This condition is, however, an extremely common one, and may be very readily overlooked, for the signs by which it is recognised are only faintly marked. It must be considered as really the first stage of phthisis—that stage through which, at least, all cases of catarrhal-pneumonic phthisis (and therefore the majority of cases of pulmonary consumption) passes. The pathology of this disease consists, as has been before intimated, in the proliferation of the epithelium of the air cells by a catarrhal process of the most superficial kind affecting them. Tubercle has nothing whatever to do with this process, which may, indeed, pass on to catarrhal pneumonia and destruction of the lung without tubercle taking any conspicuous part in it. But an irritative hyper-growth of the minutely dispersed adenoid or gland tissue of the lung, which has been before referred to, may be set up secondarily by the catarrh, and then the disease in its further stages assumes the characters of that described by Addison as tuberculo-pneumonic phthisis. Further, the adenoid growth, accompanied, as it always is, by more or less increase of fibrous tissue, may, having once been set going by the irritation of a simple catarrh, take so prominent a part in the future progress of the disease as to eclipse altogether the catarrhal process, and we get a somewhat rare, insidiously progressive and very destructive disease, which, I think, has not been fully described in its entirety, but which closely corresponds anatomically with the iron-grey induration of Addison, and invades the lung by substitution of a fibroid tissue, inch by inch, from apex to base. These may be said to be the three directions in which alveolar catarrh, when it runs in an unfavourable course, may lead, and its tendency to develope into such formidable morbid processes is a sufficient reason for its being rationally regarded as the first stage of phthisis. Hereditary predisposition, existing cachexia, and the special nature of the influences which have produced the disease play an important part in determining its future characters—*i.e.*, whether it shall be pneumonic, tuberculo-pneumonic, or tuberculo-fibroid; also, whether its course shall be rapid, or insidious, or intermittent. But I must hasten to observe that if alveolar catarrh be early recognised and rationally treated its progress may be in a large number of cases entirely checked, and the more adverse the circumstances which have led to the development of the disease, the more hope is there, on their removal, of convalescence.

How, then, can this condition be recognised in its earliest stage? Professor Niemeyer, who has more than any other author urged the importance of its early detection and treatment, regards the presence of pyrexia as the one symptom above all others indicating the extension of the catarrh to the alveoli, and he attaches some weight to streaky hæmoptysis as a sign of the alveoli having become involved in the catarrhal process. The significance of these symptoms, when present, is beyond question; indeed, I think, when there is elevation of temperature, we always have some pneumonia present, and have, therefore, arrived at a stage beyond mere catarrh. The patient who is the subject of alveolar catarrh has always been depressed in health, through tardy convalescence from some other disease, or bad living, or mental anxiety; he has had a persistent, though, it may be, a slight cough, for a longer or shorter time, and has during that time been getting thinner. At this stage, the physical signs are very slight, but sufficient for diagnosis in conjunction with the symptoms and history. There is no dulness or impaired movement, but the respiration is weaker at one apex, the inspiration being wavy, or even jerking. There are usually a few sonorous râles present, which, if limited to that apex, are

very significant; and, in addition, one hears at the extreme summit of the lung (supra-clavicular or supra-spinous region) a peculiar crumpling sound at the moment of cough, which differs both in time and degree from the crepitant sound audible at a somewhat later stage with the first inspiration following a cough. Not to refine too much, though we have to deal with very slight physical signs—which, the slighter they are the more important are they to be recognised—we may say that physical signs of bronchial catarrh limited to one apex, and associated with a decided imperfection in the respiratory murmur at that apex, afford, when taken in conjunction with the symptoms—more particularly emaciation—unmistakable evidence of incipient phthisical disease, upon which we must advise most decidedly, if we do not wish to see the patient pass beyond our control, so far as positive cure is concerned.

There is no clinical line of demarcation to be drawn between this condition and the prodromal catarrh which precedes it, or the catarrhal pneumonia into which it is apt to pass; they shade imperceptibly into one another. I only specially refer to this stage as the earliest recognisable stage of phthisis. I now pass on to give a case illustrative of catarrhal pneumonia in an early stage, which also bears out some of the above remarks respecting the most common etiology of this form of consumption.

S. S., aged 29, a married woman engaged in domestic duties and suckling a child aged 7 weeks, came under my notice as an out-patient in April last. Her mother had died of consumption within two years of the patient's birth, and an elder sister had been affected with the disease in an early stage. She had enjoyed fair health until her first confinement, when she was with difficulty delivered of twins, only one of whom survived the birth, which was stated to have been a "cross one." This child she suckled for eleven months, when she again became pregnant with her present child. Ever since her last confinement (seven weeks) she had suffered from increasing debility, emaciation, and cough, and shortly before her confinement she had had slight hæmoptysis. She was a tall, thin, anæmic woman, with the worn look so characteristic of over-lactation or rapid childbearing; her large, heavy, pendulous breasts, marbled with large veins, increased by contrast the apparent general flatness and narrowed antero-posterior diameter of the chest. There was no local flattening, however, at either apex, and the respiratory movements, though generally deficient, were not more so at one apex than at the other. On percussion over the summit of the left lung the resonance was somewhat less than on the opposite side; the respiratory sounds were harsh and accompanied by some moist crepitation, which extended to the second rib. The respiratory murmur elsewhere was of fairly good quality, but somewhat feeble. The main symptoms complained of were troublesome cough and yellow expectoration, shortness of breath, general weakness, and giddiness in the head. The pulse was quick and weak, the appetite indifferent, but digestion fairly good.

The case was regarded as one of Catarrhal-pneumonic Phthisis in an early stage, the disease being limited to the left apex, and supervening upon the exhausting effects of more than thirty months' continuance alternately of gestation and lactation. She was directed immediately and completely to wean the child, to take abundance of appropriate food, with a moderate amount of beer. Some counter-irritation was applied at the left apex, and cod-liver oil and steel wine administered, with some morphia and ipecacuanha lozenges for the cough. On again examining the chest a month later the moist sounds were no longer audible with ordinary respiration, but a few crackles were heard after cough. There was slight flattening at the left apex, which became more obvious on deep inspiration; the respiratory sounds were feeble there, while on the opposite side they were more developed, and on percussion the line of resonance of the right lung extended a little to the left of the mid-sternal line. There was no evidence of a cavity at the left apex, and no extension of the disease below. The health of the woman was, though improved, by no means restored; she was still anæmic and thin. Her cough was troublesome, especially in the morning, and expectoration difficult, the effects of coughing often causing vomiting at that time. She had neglected to completely wean her child, and continued to "give it the breast now and then." The pulse was quiet but weak; the appetite improved. She had been unable to take a stronger preparation of iron ordered a fortnight previously, and was obliged to fall back upon the steel wine. Three weeks later she had very greatly improved in health and strength; some colour had returned to the cheeks, and she was gaining flesh rapidly.

This case, though not complete, illustrates so many points in the clinical history of catarrhal-pneumonic phthisis(a) in its earlier stages that I have related it in preference to others.

I use the term "catarrhal-pneumonic phthisis" because the term pneumonic phthisis is often used to signify cases which have commenced as simple basic pneumonia which have not undergone complete resolution. It may be true that we sometimes meet with genuine croupous pneumonia at one apex. I believe such cases are, however, exceedingly rare. The case now under consideration could not be confounded with such; the dulness was never absolute, the respiration was not decidedly bronchial,(b) and the crepitation was not that of typical pneumonia. But in other cases, which do not essentially differ from this save in degree, the dulness may be complete and the crepitation undistinguishable from that of true exudative or croupous pneumonia, the respiration being also tubular, but, I think, never so intensely so as that of basic pneumonia. This, of course, might be readily accounted for by the seat of the disease; but the subsequent course of such cases is very rarely indeed that of simple pneumonia. They do not undergo complete resolution. The most common course is for the consolidation subsequently to soften and break up into cavities; and on post-mortem inspection of such apex consolidations, we find the alveoli stuffed with large catarrhal cells, instead of being occupied by the fibrinous exudation with entangled corpuscles characteristic of true exudative pneumonia. We must not, however, draw the line too absolutely between these two forms of pneumonia, for they are certainly not unfrequently mingled together; but it is the catarrhal pneumonia which is the important disease, the natural tendency of which is to break down into cavities, while any croupous pneumonia with which it may be complicated readily undergoes resolution. We thus, from clinical and post-mortem experience, know that an apex pneumonia is of a much more serious kind than a basic one—it should be always regarded as probably a phthisical pneumonia, and, though we cannot agree with those observers who say that the inflammation has been determined to that part by the presence of tubercles, yet, clinically and in their acceptation of the term tubercle—as including both the miliary granulation and nodules of catarrhal pneumonia—this view will, I think, generally hold good.

The main points of the case before us may be summed up as follows:—A woman with a tolerably strong hereditary tendency to consumption (her mother was probably phthisical when she was conceived), enjoys fair health until she is 27, but in the course of the succeeding two years and a half she gives birth to three children in two confinements, two of whom live and are suckled by her. Shortly before the birth of her last child her health breaks down altogether, and she becomes the subject of phthisis. It is to be remarked that there is no history in this case of any exposure to cold.

Now, I think it is fair to assume that, had this patient been in happier circumstances, had her health not been depressed by the development at her expense of three infants and the maintenance of two of them, while she herself was doubtless not in the enjoyment of nutritious food in any great abundance, had she sought advice earlier (and taken it), she would never have become phthisical—her hereditary proneness to consumption might have remained a mere latent tendency. Had there been any family tendency to insanity, it is extremely probable that she would have been, under the same circumstances, afflicted with puerperal mania. "It is true that privation, excess, errors in habits of life, the sedentary occupations, the pernicious influence of certain trades, grief, anxiety, and the other wasters of vital powers, will not suffice to induce consumption in all, or even in the greater proportion of, individuals; for these agents, so universally prevalent, are part of the daily lot or of the daily errors of many more than fall victims to consumption. But it is also true that if to any or all of these conditions that of inherited tendency to phthisis be superadded, very few indeed escape the disease."(c) The truth of this remark is well borne

(a) This case would be grouped under one of the following headings by the authors named:—Pneumonic phthisis, Addison; catarrhal pneumonia, Niemeyer, Hérard, and Cornil; epithelial pneumonia, Andrew Clark.

(b) The breath-sound which is audible over a portion of lung when the consolidation is not uniform, but in scattered nodules, is variable within certain limits; sometimes it is simply harsh, sometimes bronchial, but with some vesicular murmur superadded. I find the term "broncho-vesicular" a convenient one briefly to describe this sound. It also very well describes the sound frequently heard over a small cicatrising cavity with compensatory vesicular enlargement around it. When the nodules are large enough to be mapped out by percussion, of course the bronchial breath-sound will be correspondingly isolated.

(c) Dr. Pollock, "Elements of Prognosis in Consumption," p. 349.

out by the above, amid hundreds of other cases which must be familiar to Physicians.

The points about the case which rendered the prognosis a favourable one, with certain reservations, were:—1. The obvious and very sufficient determining cause. 2. The limitation of the disease to one apex. 3. The presence of considerable crepitation and some dulness, without any local flattening or marked difference in expansion. 4. The absence of fever.

1. If the circumstances of the patient admitted of complete rest from the cares and anxieties of her position of life, and a change to a purer air, there would scarcely be a doubt as to the prognosis; and although she has had no advantages of this kind, and with the common dread of her class of becoming again pregnant, she could not be persuaded completely to wean her child, she has yet greatly improved; the disease has not extended, the physical signs show drying up of secretion sounds and pulmonary collapse. The encroachment of the margin of the opposite lung, and the gradual appearance subsequently of some flattening, show that the lung beneath is cicatrising. This encroachment of the margin of the opposite lung towards the diseased side should always be anxiously looked for; it can be readily made out by percussion, and when the disease is one-sided, it precedes, often by a long interval, any decided apex flattening.

3. The late appearance of flattening—coincidently, that is to say, with the lessening and disappearance of moist sounds, which were considerable—is an important sign of arrest of the disease, in contradistinction to flattening which comes on coincidentally with an advance in the other physical signs, and which may be due, therefore, to sheer loss of lung substance, or to the presence of the indurative (tuberculo-fibroid) form of disease, which, though of chronic course, yet is one of the most intractable of lung diseases. Flattening must, then, only be considered in conjunction with other signs, and with especial regard to the period of its appearance. In the case before us, it, together with the other signs, signifies pulmonary collapse, with, perhaps, a few shrunken nodules, pleural adhesion, and some pleural thickening.

With regard to the management of such cases as this, there is little comment needed. It is unnecessary to point out the great importance of complete removal, for a time, at least, from the adverse circumstances which in the first place induced the disease. In the case of women who are suckling, a partial weaning of the child is of very little use; the irritation and vascularity of the breasts is kept up by the occasional sucking of the child, and the nutrition is diverted from its natural objects almost as completely as before. Iron and cod-liver oil are the necessary remedies. One of the best forms of iron to begin with is the ammonio-citrate, to which a little aromatic ammonia is added. The sesquichloride will often not agree at first.

There is one symptom in the above-related case which deserves a special comment: the cough remained troublesome while the pulmonary signs were greatly improving and all secretion sounds rapidly drying up. Dr. Thorowgood(d) has drawn attention to the irritable dry cough which is so frequently attendant upon the subsidence of pulmonary disease, and truly observes that the patients should be encouraged to check the cough themselves as much as possible. This they can do to a great extent, and may be assisted by some sedative cough mixture, if necessary, to secure rest at night. The morning cough in these cases—and, indeed, in many others—is the most troublesome. It is, however, the natural consequence of a good night's rest, and should never be checked by a sedative, since the retained matters suitable only for expectoration considerably impede respiration, become highly irritating, and much increase the future trouble from cough. A cup of warm cocoa, or tea, or milk, taken before rising, will greatly facilitate expectoration. If this does not suffice, a simple steam inhalation is useful.

(*To be continued.*)

At the recent examination for the newly established diploma in State Medicine, given by the University of Dublin, the first place was taken by Dr. J. W. Moore, ex-scholar, Trinity College, Dublin; the second by Mr. A. W. Foot, Junior Physician to the Meath Hospital and County of Dublin Infirmary; the third by Mr. Yeo, who obtained the Junior Medical Exhibition in 1864 and the senior Medical Exhibition in 1866; and the fourth by Mr. Todhunter, a gentleman already well-known in certain circles for his literary abilities.

(d) "The Climatic Treatment of Consumption."

PREGNANT SICKNESS.

By METCALFE JOHNSON, M.R.C.S.E.

In considering the effects of remedies upon the human body, the possibility of error in some form or another presents itself so frequently as to induce great hesitation to accept coincident results as necessary consequents. There are, however, some drugs, such as opium, whose effect in sleep is seldom doubted. The point to which I desire to direct attention is one which is beset with difficulties. My object now in writing is to invite consideration for the phosphate of lime as a means of relieving the sickness consequent on the pregnant condition. But when we consider the double relation of mind and body, through the ganglionic nerves and the disturbed state of their functions, in all cases in which the control of the ganglionic nerves, or the great sympathetic, is interfered with by an abnormal condition of organ or organs under its especial rule, we shall see that it requires especial watchfulness to be sure that we do not mistake a "*post hoc*" for a "*propter hoc*" in those instances where relief of symptoms has followed the exhibition of the remedy. Before proceeding to remark on the theory of *modus operandi*, etc., the simple use of the drug may be described. For some years past I have been in the habit of prescribing the simple hydrated phosphate of lime of the Pharmacopœia in doses of from three to ten grains each, three times a day, suspended in water, and flavoured according to the taste of the patient. I have tried the remedy dissolved in hydrochloric acid, as also the powder in the dry state, besides having had it made up into biscuits; but in none of these forms have the same agreeable results followed so frequently as when the simple hydrated phosphate has been used suspended in water.

One remark may here be made respecting disorders of the great sympathetic and its subjected organs, that they are generally characterised by a dislike of all sweet flavours. This has been noticed in the case of persons whose ganglionic system is disordered through the stomach by the abuse of alcohol; for I think it is Coleridge who says there is always hope for a man so long as he is fond of his pudding. But in those other forms of female ganglionism which, for want of a proper diagnosis, we designate under the generic term hysteria (though in many cases the ὕστερον has nothing to do with it), the taste not only takes an aversion to sweet things, but has, apparently, a depraved tolerance of the flavour of fetid preparations and the alkalies, together with an ability to receive the stimulus of both alcohol and the carminatives, such as lavender, ammonia, cardamoms, etc., with advantage. The relation of this sympathetic nerve to certain conditions of the circulation is a subject worthy of more attention than it has at present received; more especially since the *Saturday Review* has, with a one-sided view of the matter, taken up such a raid against "alcoholism."

With these complex considerations we approach the subject of pregnant sickness or vomiting. Here we have, of course, an enlarged uterus, which physically bears a relation to the various organs of the body, such as the stomach, large and small intestines, liver, gall-bladder, kidneys, etc., different from that in health, pressing upon each, and producing a state of things with reference to each organ which, if brought about by traumatic means, would in any case bring on nausea and vomiting. But, in addition to this, the very relation to the nerve is altered, and in many cases this great change is attended with not only bodily suffering but temporary mental aberration. I have not unfrequently seen temporary insanity of a few hours' duration attend both the act of conception and the act of quickening. Everyone is of course familiar with the puerperal insanity as well as the frequent insanity which is associated more or less directly with ovarian or uterine disease.

A short time since, Mrs. A. B., aged 24, second pregnancy, during the last month has had violent spasms all over the body, with strabismus. Mouth and hands clenched. Says she has pain all through the womb. Has great sensibility in the nipples of the breast. Bowels generally confined. Has had bleeding at the nose for the last few days. Her mother is a very excitable, clever woman, and one other close relative a somnambulist. The spasm was relieved by subcutaneous injection of morphia. I emptied the bowels by an aloetic enema, and gave her the phosphate of lime, which she took for three weeks, after which she was delivered of a very small child, the parietal bones of whose head consisted simply of two centres of ossification. Since her confinement she has been well. The spasm

never returned after using the phosphates. I have often had this proof of the efficacy of the phosphates in arresting the sickness: that patients have been sent to me for "some of that medicine that relieves the sickness."

I had a patient a few weeks ago, who had been complaining for some weeks of an irresistible vomiting after every meal, who no sooner took the phosphates than all sickness ceased. This of course might be the effect of expecting to be relieved; but the cases have occurred too frequently for me to think other than that relief has been most frequently the result of the use of the phosphates. As such, I trust that some of your readers will be induced to give the remedy a trial, for which I now proceed to give a physiological reason or *ratio medendi*.

As we have seen, the altered shape of the uterus, the altered nerve relations, the control of the ganglionic nerve to supply the new arterial system to be established, make a demand upon nervous influence which is very unusual. Nervous power cannot be expended without harm, unless the supply of new neuric elements makes up the deficiency. Neuric force derives much of its nutrition and source from phosphates. Moreover, the child in its formation requires more phosphates for its new bones, and if these are supplied at the expense of brain and ganglionic nerve, it follows, as a matter of course, that debility, nervousness, and all the concurrent train of symptoms must inevitably be brought about; and hence arise those feelings of depression, peevishness, and irritability so frequently associated with the pregnant state. Nor is it to be wondered at, if we consider that we take no steps to supply the new demand made upon the blood.

This view of the case is again supported by pathological evidence, when we see how that fractures in pregnant females are more frequently liable to non-union. These considerations induce me to believe that the remedy is really the cause of the relief so constantly expressed by the patient after its use for a few days. I have also for some years been in the habit of using this form of phosphates for the relief of rickety children with great success, which further confirms me in the belief that phosphates administered through the stomach do become used by the blood. I have used for children the saccharated wheat phosphates supplied by the druggists, but in the case of pregnant females I have not found these so useful, and chiefly, I suspect, owing to the sugar which they contain.

Lancaster.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

THE LONDON HOSPITAL.

MR. JONATHAN HUTCHINSON'S CLINIQUE.

Syphilitic Caries—Obscure Cases of Paraplegia following Slight Spinal Injury—Hatter's Felt for Splints—Stricture of the Rectum — Recovery from Traumatic Tetanus — Syphilitic Eruptions.

We had the pleasure of accompanying Mr. Jonathan Hutchinson round the wards on Thursday, June 8, and of seeing with the students many cases of interest, brief notes of some of which we append.

The first case which particularly attracted us was that of a young man with a form of bone disease which Mr. Hutchinson believes to be peculiar to the victims of hereditary syphilis. For four years this youth had suffered from caries of the tibia, for which two operations had been performed without avail, the bone slowly softening away at the bottom of a deep ulcer. The bone did not necrose, but was rather eaten steadily away by an obstinate caries. Some tolerably characteristic malformation of the teeth was the only other syphilitic symptom presented, and careful examination into the patient's history failed to elicit any more. It was pointed out to the students that, after examining the patients in such cases of suspected hereditary taint, the brothers and sisters should be inspected if possible, and it would be necessary to bear in mind that it was not always the eldest children who were specially affected, the taint sometimes skipping these, and falling with excessive severity upon the younger members.

In another ward was a case of extreme interest in its bearing upon the subject of railway injuries, and the applications for compensation which so frequently result from such accidents. A young woman, not much over 20 years of age, fell down some two and a half years ago, but felt no ill effects of her fall, and married a few months later. A year or more after her marriage, however, weakness of the legs came on, and at present she is unable to walk. Mr. Hutchinson, to awaken the students' interest in the case, imagined it to be one of railway injury, in which a Medical opinion was required as to the reality or not of the symptoms complained of, and he then went carefully through the several salient points of the case. The woman had suffered from constipation, and the value of this symptom was pointed out, some patients passing a week without any relief of the bowels, and anything like incontinence of fæces being rare in cases of fractured spine, unless the bowels be very loose. Attention was drawn to the well-nourished condition of the limbs, and the considerable muscular resistance offered to the pressure of the Surgeon's hand against the sole of the foot. Mr. Hutchinson candidly stated that he had been formerly used to regard this symptom as of much value, as setting aside the diagnosis of true paralysis, but many late cases had induced him to recensider his opinion. A boy with angular curvature of the spine and paraplegia, who had lately been in the Hospital, and who had showed to a marked degree this muscular resistance of the supposed paralysed limbs, had subsequently suffered from paralysis of the sphincters, proving the reality of the former symptom. On pressing the hand firmly against the sole of this present woman's foot, her limb was thrown into spasmodic twitchings which she could not control. There was fair sensation of the limbs to make the case more doubtful, and there was no conceivable motive for feigning, so that, in fact, it was as difficult to decide upon the nature of the malady as to suggest its appropriate treatment.

There was another very similar case also in the wards—a blacksmith, also young, and not long married, to whom, therefore, the symptoms gave the keenest distress, but who might not unreasonably, under different circumstances, be suspected of shamming; for, besides the spasmodic twitching of the limbs, there was a certain amount of voluntary movement associated with the resistance to pressure, and in his history he spoke of diarrhœa for some time as one of the earliest symptoms, which is contrary to the rule. The loss of power here followed a kick on the buttock from a horse, three months previously. The man showed the characteristic dragging of the toes in walking, and when standing on his heels, could not raise the toes at all when bidden to do so.

A case of excision of the knee brought up the subject of appropriate splints for use after such operations. At the London Hospital, for some time past, stout hatter's felt (as used for the hats of the Cornish miners) has been largely employed for these splints. It is a substance very readily cut and moulded to the limb after soaking in hot water, and capable of easy adjustment with iron brackets, etc., where such appliances are required. We saw several such splints in the wards, and they seemed to be excellently adapted for their purposes, being quite firm and yet light, and comfortably moulded to the joints supported by them. Mr. Hutchinson mentioned that in his last three cases of knee-excision he had modified the operation somewhat by peeling up a skin flap after making the customary horse-shoe incision, and so getting into the joint above the patella, and removing all the synovial membrane and ligamentous tissues in front of the bones; and in these cases the wounds had healed very favourably.

A case of stricture of the rectum called forth the remark that, speaking roughly, it was sufficient to ask the sex of the patient to ascertain the nature of the stricture, whether malignant or innocent; malignant stricture being almost limited to men, whilst in women the disease was as frequently innocent, syphilitic, gonorrhœal, or following parturition.

We saw a capital case of recovery from traumatic tetanus in a lad who had been admitted some weeks previously with all the symptoms of a severe attack of tetanus, following a wound of the ball of the thumb. These symptoms had not come on until fifteen days after the injury (in itself a hopeful sign), but had then been very severe. The treatment had consisted of absolute rest and quiet, abstention from all narcotics, and the exhibition of quinine during some weeks. There was still some trace of the peculiar contortion of the forehead, but in other respects the boy seemed perfectly recovered.

A curious case of syphilitic disease of the brain was called into service to demonstrate a syphilitic eruption on the body. This eruption was very abundant, serpiginous, and multiple, and hence resembling rupia. It was stated to be not rupia, however, because (1) it was a tertiary, and not a secondary symptom; (2) the ulcer healed in its centre, whilst it spread at its edges; and (3) it was not symmetrical. The patient was taking twenty-five grains of iodide of potassium daily, and

Mr. Hutchinson pointed out the necessity of commencing with small doses of this drug, but steadily pushing it on to get the best effect, there seeming really no limit in some cases to the advantageous pushing.

The last case we noted was one in which the usual operation for ordinary fissure of the anus had been followed by a spreading sore, which reached the size of a shilling, and was long in healing. It was thought possible that there might be a syphilitic explanation of so unusual a result, but there seemed to be nothing to support the view.

ST. MARY'S HOSPITAL.

CASES OF POISONING BY SEWER EFFLUVIA, WITH CLINICAL REMARKS.

(Under the care of Mr. C. HANDFIELD JONES, M.B. Cantab., F.R.S.)

Case 1.—J. F., aged 49, admitted July 10, 1865, states that he was ailing eight days ago, but has been ill actually since the 6th. He was taken at first with giddiness and shortness of breath while at work in a sewer, which stunk very badly. He finished his day's work, and continued doing a little work up to the 8th, when his feet swelled. His bowels have been much acted on by castor oil yesterday and the day before. He complains now of feeling numb all over, but has no paralysis. There is some œdema of feet and legs. The abdomen is rather tense, especially at the upper part; is dull in the left flank, resonant in the right. A few doubtful rose spots on abdomen; no gurgling or tenderness in iliac fossa. Good breathing in all right back and front; good, also, in left, but attended with some moist râles at lower part. Heart's sounds normal; pulse quiet, rather weak; tongue coated; skin cold. Broth diet; brandy ʒiij., acid. nitrici ɱiij., creosote ɱj., spt. chlorof. ɱx., and aq. ʒj., 4tis hôris.

12th.—Feels much better. Tongue clean; pulse quiet; urine clear, bright-coloured, not albuminons, acid, specific gravity 1010; abdomen much blown up, but not tender, some doubtful spots. Less numbness in hands and feet; right foot more numb than left; says he could not feel the skin of his face when he came in. Has still the taste of the sewer air.

15th.—Urine pale, not albuminous; bowels regular; abdomen distended; feet œdematous. Ad. mist. strychniæ gr.$\frac{1}{10}$th ad. ʒj.

19th.—Pulse of good size and force. Legs and scrotum and penis œdematous. Urine: Specific gravity 1015, notably albuminous, depositing casts and renal epithelium. Abdominal distension continues. Pot. nitras gr.xv., hydr. bichloridi gr.$\frac{1}{10}$th, and aq. ʒj. ter die. At this date or before he was ordered charcoal ʒss. ter die.

On the 22nd the urine was much less albuminous, and the abdomen much less swollen.

On the 29th the urine was quite free from albumen; the legs still pitted. Tinct. ferri muriat. ɱx. ter die.

August 2.—He had some diarrhœa. Legs were almost natural. On August 4 he went out.

Case 2.—W. W., aged 49, admitted August 23, 1867. Yesterday morning, as he was passing by a gullyhole in the Edgware-road, he perceived an extremely bad smell. In half an hour after this, about 9 a.m., he was taken with severe vomiting; he fell down in a shop, and the sweat ran off his face. The vomiting lasted all day, in spite of two doses of brandy. In the evening the vomiting seems to have subsided, but he was greatly exhausted, and came to the Hospital. He was suffering, when he came in, with cramp in his calves and feet, and in his loins. After admission he had a turpentine stupe to the abdomen, which relieved him very much. He was ordered acid. hydrocy. dil. ɱv., and infus. gent. co. ʒj. 4tis horis. He denies having eaten anything unwholesome, but admits that he had pork the day before, which he does not usually take. Urine pale, not acid, not albuminous; sp. gr. 1019. No diarrhœa. Epigastrium feels sore. Says he could not see when he came in from the straining of the vomiting, and even now his sight is dim; he cannot make out the large figures over the beds on the opposite side of the ward. He had good diet and tonics, and went out well August 28.

Case 3.—This is taken from a foreign source, and will be found in the "Sydenham Society Year-book," 1860, p. 485:—"A ground-labourer, aged 40, after working about three hours in a sewer, was compelled to leave off on account of the horribly stinking atmosphere. Next morning, after a sleepless night, he resumed his employment, but was at once obliged to discontinue and go home to bed. At first he suffered from languor, anorexia, and sleeplessness, with slight nocturnal delirium. There was no fever and thirst, and the tongue was clean. Pulse 80 to 90. Bowels confined. After these symptoms had continued four days, an icteric tinge of the sclerotics, of the face and general surface became perceptible. This did not become intense, and there was no corresponding alteration of the urine or excrements. On the eighth day there was hæmorrhage from the nares and pharynx. Extreme prostration followed, but was very promptly succeeded by an improvement in all the symptoms, which led to convalescence. The treatment consisted in fresh air, support, and stimulants."

The above histories undoubtedly describe the operation of a poison, or several poisons, on the human frame. There is a good deal of difference in the symptoms dependent, perhaps, on idiosyncrasy—but the general character of all is the same, and points evidently to prostration, expressing itself in various ways. In the first we have giddiness, dyspnœa, numbness, meteorism, œdema of the lower limbs, and after a while temporary albuminuria. The numbness, a sensory paralysis, was very considerable, and probably, like the giddiness, was produced by change in some of the encephalic centres. The meteorism may be referred to paralysis of the nerves and muscular coat of the intestines. The anasarca and albuminuria I ascribe similarly to vaso-motor nerve paralysis. In the second case, the morbid impression made on the system seems to have provoked, probably through its operation on the vagi nerves, intense vomiting, which possibly may have had a remedial influence. The duration of the symptoms in this case was much shorter than in the others, but the same is true in even a greater degree of the exposure to the morbific agency. In the third case there was languor, sleeplessness, some delirium, followed by some blood-change producing an icteric tint, then hæmorrhage and great prostration. The blood-change was probably of the same kind as that which takes place when jaundice is produced by mental emotions, the nervous system in both cases being the medium through which the cause operates. The hæmorrhage was occasioned, like the œdema in the first case, by paralysis of vaso-motor nerves affecting the capillaries, but the loss of retentive power must have gone further than in that instance. Unfortunately, the thermometer was not used in any of these cases, so that the absence of fever cannot be held proved, but pyrexia was certainly not a marked symptom. Fever is so common an attendant on blood-poisoning and prostration, that its absence would be rather surprising. The occurrence in the first case of spots much resembling those constituting the eruption of typhoid is a very interesting matter, as it bears on the question of the pythogenic origin of that fever. I do not think it would be safe to lay much stress on the appearance of these spots, unless they came out in successive crops, and were associated with some of the other usual symptoms. Nevertheless, as ground seems to exist for doubt whether typhoid is as truly a specific fever as small-pox (for instance) is, and whether the typical cases do not shade off by various modifications into other forms of disease, I think it is worth considering whether this eruption may not indicate, at the least, the presence of a certain amount of typhoid element.

However, having regard to the absence of marked diarrhœa, of evident fever, of prolonged duration of illness, of incubation, and of general similarity of symptoms, the above histories seem to me to make rather against the origin of enteric fever from emanations from mere filth.

In conclusion, let me observe that, as these were cases of acute poisoning by sewer emanations, so, undoubtedly, cases of chronic and slight poisoning by the same agent are vastly frequent. We ventilate our sewers into the streets, and the amount of contamination thereby occasioned to the atmosphere may be sorrowfully appreciated by any Londoner who passes incautiously near a gullyhole during a spell of dry weather. We think of our ancestors as dirty people; what will our posterity, in more enlightened ages, think of us who were content to breathe such a polluted air without an effort to amend it? Well may Doctors have to send their patients out of London, and well may we erect convalescent asylums in the country.

ST. PETER'S HOSPITAL.

LARGE CALCULUS VESICÆ—LITHOTOMY—RAPID RECOVERY.

(Under the care of Mr. TEEVAN.)

On June 10, 1868, James B., a powerfully-built man, aged 74, was sent up to the Hospital from Eton Union, Bucks, suffering from stone in the bladder. Patient was born at Eton; was formerly a seaman, but his complaint has for some years ast

rendered him an inmate of the Union. No history of stone in his family. Past state: Six years ago first began to pass some yellow gravel, which lasted for about four years, when he commenced to suffer much pain after urinating, chiefly at the end of the penis. Has only passed blood three times, and then only after riding in a cart. Stream of urine has never suddenly stopped. Water only occasionally thick. Present state: Looks healthy; but little pus or albumen in urine, which is usually clear. At night he is frequently called out of bed, but holds his water for several hours in the day-time. Is calm and self-possessed, and has not lost flesh.

June 11.—Mr. Teevan examined the patient's bladder with a lithotrite, and found the stone of such a size as to entirely preclude lithotrity.

June 15.—Patient's bowels were opened with an enema this morning. At 3 p.m. he was put under chloroform by Dr. Aspray, and then placed on the operating table. A large rectangular staff was introduced, without any difficulty, by Mr. Teevan, and then given to Mr. Coulson to hold. As the man had a deep fat perineum, Mr. Teevan commenced the lateral operation lower down than usual, and struck the staff at the first cut. The second cut opened the bladder very freely, from which a large quantity of urine escaped, and the open polypus forceps being then introduced, and suddenly opened, at once grasped the stone, which had fallen between its blades. On account of the great size of the calculus, Mr. Teevan had to introduce a probe-pointed bistoury four successive times, cutting outwards and downwards, that the stone might glide out without the slightest traction being exerted. The calculus was smooth, of oval shape, composed of uric acid, and weighed four ounces and a quarter. Much bleeding took place during the operation, but it ceased a few minutes after the stone was extracted.

16th.—Patient slept well last night; tongue clean and moist; pulse 84; urine passes freely by the wound.

18th.—Not the slightest hypogastric tenderness; pulse 76.

20th.—Patient going on very well; wound looks healthy and is fast contracting.

27th.—Urine passes per urethram.

29th.—Patient sits up for two hours daily.

July 5.—Wound nearly healed; all urine comes per urethram.

16th.—Wound quite healed.

Discharged cured on the 25th; not suffering from incontinence of urine.

Remarks.—The calculus, although of great size, produced but little disturbance, as it was smooth, rested behind the prostate, and the patient led a sedentary life; these facts accounted for the little amount of pus or albumen present in the urine. No difficulty was experienced in the operation, which was rapidly performed, as the bladder was freely laid open and the stone extracted without the slighest violence being used. The absolute immunity from any constitutional disturbance, hypogastric tenderness, or secondary hæmorrhage, coupled with the fact of a rapid recovery and freedom from incontinence of urine, show the great advantages of extracting a calculus by gentleness, which implies cutting, rather than by forcibly tearing it out by the so-called process of dilatation, which is absolute laceration of the prostate, its capsule, and the surrounding connective tissues.

YORK COUNTY HOSPITAL.

DISLOCATION OF FOOT FORWARDS.

(Under the care of Mr. HORNBY.)

[Communicated by OSWALD BAKER, Esq., House-Surgeon.]

J. D., a farmer, aged 42, admitted March 21, 1871. The accident was met with in the following manner:—The man was following the York and Ainstie hounds, when his horse refused a hedge, and, raising itself on its hind legs, fell over backwards. The patient got himself clear of the animal, with the exception of his left leg, which was on the ground, with the anterior aspect upwards, the heel resting on the soil. On this leg the body of the horse came, and so caused the above injury.

Three hours after the accident, although there was then considerable swelling about the ankle, its nature was clearly visible. The malleoli were in their respective positions, but the foot was markedly forwards, the posterior surface of the os calcis being in the same straight line as the posterior margin of the external malleolus.

The patient was placed fully under chloroform, and Mr. Hornby, grasping the foot, and applying forcible traction with extension, the House-Surgeon at the same time holding the leg, as well as pressing with his thumbs on the astragalus, the dislocation was reduced. The foot was kept between splints for a month; the patient was then allowed to try to walk.

April 27.—On leaving the Hospital, the full use of his limb was rapidly returning.

SIMPLE FRACTURE OF FEMUR—DEATH.

(Under the care of Mr. HORNBY.)

David H., aged 50, a labourer from Elvington, was admitted into the County Hospital, on January 14, with a fracture of the right femur. The fracture presented no special characters. It was diagnosed to be just above the condyles. There was some swelling and effusion into the knee-joint. Extension was applied by means of the ordinary long splint, the leg being bandaged to the splint as high as the knee.

January 16.—The effusion into the knee-joint has increased, and there is more swelling at the seat of the fracture; but the patient had been fairly easy until last night, and he says that the pain in his thigh was so great that he could get no sleep. 9 p.m.—Has had great pain in his thigh throughout the day. Bandage removed from leg as low as ankle, and all extension abandoned for the present.

17th.—Pulse, 112; temperature, 103°. Passed another sleepless night, in spite of tinct. opii and chloral. The thigh is considerably more swollen, the calf having become now involved, although on removal of bandage it was quite normal. Some slight discoloration at seat of injury. 9 p.m.—Pulse, 120; temperature, 103°. Tongue clean; skin cool, moist. Has not suffered much pain in the limb, which appears more swollen. The dusky discoloration extends throughout the limb, and partakes somewhat of a tallowy colour. The swelling does not pit on pressure, like erysipelas or simple œdema, although there is slight pitting which is not very persistent. The discoloration is not defined at its margins, and there is no vesication. The anterior and posterior tibial arteries can be distinctly felt at the ankle strongly pulsating. The patient has refused solid food throughout the day, and has vomited several times. Has had no action of the bowels since admission, although several doses of aperients have been administered. Ordered an enema, which freely relieved him.

18th.—Pulse, 112; temperature, 101°. Has again been vomiting; the discoloration of the skin is now more marked, and partakes of that from effusion of blood. The swelling does not appear to have increased since yesterday. 9 p.m.—His stomach rejects everything; he is delirious; his extremities are cold; and he is almost pulseless.

Died at 5 a.m. the following morning.

Autopsy.—Body healthy; no internal lesions. The lungs are very emphysematous, and contain but little blood. The kidneys are pale, and the remaining organs more or less bloodless. On cutting into the thigh or leg, blood poured out from the cellular tissue. There is no large collection of blood in any one place—it seems generally diffused throughout the whole length of the limb. The fracture is an ordinary one, at the junction of the upper three-fourths with the lower fourth of the bone, and as transverse as a fracture can be. Unfortunately, there is not time to seek, by dissection, the vessel from which the hæmorrhage took place.

THE CONCOURS REVIVED AT THE PARIS FACULTY OF MEDICINE.—At its adjourned meeting on June 15, the Faculty of Medicine resumed its discussion on the Report of M. Gavarret on the project for the re-establishment of the *concours*. As the result, it adopted unanimously, with the exception of one vote, the employment of the *concours* in the nomination of future Professors.

THE OSSUAIRE OF ST. LAURENT.—The *Gazette Hebdomadaire* (June 16) publishes the report which, at the request of the Communist authorities, "Citoyen Docteur" Pierry drew up concerning the eighteen skeletons found in the St. Laurent Church, or, to use the words of the Commissary of Police, "*sur les cadavres découverts récemments par mes soins.*" M. Pierry shows that all the hubbub which was raised by this supposed "discovery" was a mere mare's nest, as the *cadavres* were in fact skeletons of aged women, more or less wanting in their teeth, and which had been so long interred that the bones had undergone considerable decomposition. They were, in fact, the bodies of women interred before the sepulture in churches had been prohibited in France. As this report did not corroborate the suspicion of a recent "crime" having been committed, the Commune did not think it necessary to make it public.

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Medical Times and Gazette.

SATURDAY, JULY 1, 1871.

THE GENERAL MEDICAL COUNCIL.

The session of the General Medical Council, which commences on Tuesday next, does not promise to be a very long or a very animated one. The expectations raised by the Medical Reform Bill of last year have not been realised, and although attempts have been made by the licensing bodies in England to carry out without legislation the chief reform which is necessary, those attempts, however successful they may ultimately prove, will not have effected the desired amalgamation of examinations before the meeting of the Council. Still, remembering as we do the elements of which the Council is composed, we do not despair of an average amount of talk, and of a corresponding scantiness of performance. It would belie the history of the General Medical Council if it were argued that because there is not much for the Council to do there cannot be much for the Council to say.

The personal changes in the Council will not be numerous. We shall miss Dr. Rumsey, whose vacant place has not as yet been filled up by the Crown, and Mr. Quain will appear as the representative of the Royal College of Surgeons of England. There will be the usual routine business to be gone through. Committees will have to be appointed; the cases of certain alleged offenders against social and Professional morality will have to be investigated; and we believe that a requisition from the Board of Public Examiners of the Cape of Good Hope asking that their Examination in Arts may be recognised, and from Sydney in reference to the formation of a Medical school there, and a communication from the undaunted Dr. Edwards Crisp will be brought under the notice of the Council, and will afford occupation for speakers and reporters.

The *pièce de résistance* provided for the Council, however, will be the report of the Committee on Medical Education, of which Dr. Parkes is the chairman. It is said, and we hear it on good authority, that this report is a very important one, inasmuch as it recommends that the Council should again seek an interview with the Lord President of the Privy Council, with the view of obtaining the assistance of Government in framing and carrying a Medical Amendment Act in 1872. We cannot but think that this recommendation, before it be adopted, should be most carefully considered. The great reform which the Medical Profession needs is the co-operation of the examining bodies to institute a national examining board in each division of the kingdom. If this cannot be obtained without fresh legislation, an appeal to Parliament, with the attendant evils of State interference in the affairs of the Medical Profession, the probable formation of a new order of licentiates unaffiliated to any of the existing institutions, and the tolerably certain lowering of the standard of Medical education and examination, seems inevitable. But we maintain that the General Medical Council ought to bring its influence so strongly to bear on the examining bodies that such a train of evils shall be avoided. If the Medical licensing bodies choose to unite for the formation of Conjoint Examining Boards, the Act of 1858 gives them the power to do so under the sanction of the General Medical Council, and public opinion will support them in the step they take. We are glad to hear that the report of Dr. Parkes's committee contains a recommendation that the General Medical Council should send another letter to the examining and licensing bodies, urging on them the necessity of co-operation. It may be also hoped that the Council will issue some well-defined and considered scheme, in the form of a recommendation—for more than this they cannot do—for the guidance and consideration of the educational and examining bodies. If the General Medical Council will bring about, without appeal to Parliament, a fair one-portal system, erected on the basis of the present examining bodies, and utilising the present excellent machinery for Medical examination, it will for ever and triumphantly rebut the charges of inefficiency and incompetency which have been brought against it. If, on the contrary, it becomes itself the mere appendage of a Government department, and places Medical examination and education under the direction of a Minister of the Crown, it will have irreparably injured the Medical Profession, and have published to the world its own failure.

PERSECUTED PHILOSOPHERS.

Nearly a whole column of the *Times* of June 23 is devoted to magisterial investigations, which, we regret to say, have terminated, even as in the days of Galileo, in the victory of legal intolerance over applied science. The Galileos on the present occasion are — Professor Zendanester, represented by his managing partner, John D. Bryant; Professor Cicero, *alias* George Shepherd; Professor Thalaba, *alias* William Henry; and Charles and Sarah De Baddeley.

These illustrious personages, although their studies and pursuits mainly tend in one common direction, differ slightly from one another in the branches of science to which they devote themselves. Professor Zendanester's agent calls himself "a botanist," but is charged by the police "with professing to tell fortunes," and "a case of medicine bottles and several boxes of pills" were found in his room. Hence we may infer that this gentleman is also engaged in the practice of Medicine, and that he is probably a specialist of a certain nature. Professor Cicero describes himself as "the great and true physiognomist and phrenologist," and, in accordance with the universally recognised view that the world's greatest men belong to no special nation, he announces himself as "of Rome, Palestine, Jerusalem, and the Holy Land." He has lately returned from the East—which, we presume, means Palestine and the Holy Land—to England, and, with the modesty that characterises true genius, has selected for his dwelling-place a quiet by-street near the Edgware-road. Although he informed Mr. Mansfield, at their late interview at the Marylebone Police-court, that, "so far from being a gainer by the undertaking, he had been a loser," he tells us—or rather his "fair inquirers"—in his prospectus, "that he still continues to practise the ancient art of physiognomy with phrenology," and that "characters and dispositions are faithfully described from the features, thus rendering the exact age of the inquirer unnecessary." If we had known last week that "the Professor can be consulted, *free of charge*, upon any matter appertaining to the affairs of life, past, present, and future," we should have liked to have inquired where he was—whether in Palestine *or* the Holy Land—six months ago, and where he would be at the present time. We learn

from extrinsic sources that the true answer to the first question would have been "in prison for two months for the illegal possession of certain goods," while the unsympathising reporter for the *Times* tells us that he is now enjoying "imprisonment for three months, with hard labour." We are sorry to find that so scientific a practitioner as Professor Cicero adopts —or, reflecting on his present unfortunate position, we should rather say adopted—the pernicious practice of allowing himself to be "consulted *medicinally*, free of charge, daily from 10 a.m. to 10 p.m."

Of Professor Thalaba and Professor Baretta we know little, except that the former is an astrologer, and that they are both fortune-tellers, and that they have retired from the cares of the outer world for three months, the latter being prescribed a course of strong personal exercise.

Charles De Baddeley, and Sarah, his wife, are charged with "selling noxious drugs with intent to procure abortion." The former is described as a Medical botanist and a mesmeriser. A Mrs. H., who was in the pay of the detective police, gave evidence before the magistrate to the effect that she had "three times visited the female prisoner, and that the male prisoner put her in a state of clairvoyance, and she told her what to do, and supplied her with herbs, etc., to procure the miscarriage of her niece." The "she's" and "her's" are rather confusing, but we presume that Charles mesmerised his wife Sarah. The herbs given to Mrs. H. were found to be ergot of rye and savin, and a book has been found in the house by the police, containing, among other entries, the following:—"Ergot of rye for forcing childbirth." As the case is not yet tried, and the prisoners are out on heavy bail, it would be unfair to express any opinion on it.

But if such persons as these Professors and De Baddeleys crop up so abundantly in the metropolis of the most civilised nation on the face of the earth, what are we to think of the mental condition of the vulgar throng who unceasingly, and after repeated warnings, flock to these false prophets? When policeman Webb, in company with two others, invaded the sacred temple of Professor Zendanester in Homer-street, this is what he saw and what happened:—

"In the front room on the ground-floor he found thirty or forty young women seated. Witness held the door, and another officer went into the inner room, a detective named M'Maith remaining outside. The women wanted to know what was the matter. He told them that he must have their names and addresses. They immediately began to scream, and rushed in a body through the door, overturning M'Maith. Witness succeeded in obtaining the names of five, and then went into the inner room, where he found the prisoner. On the walls were pictures (now produced in court) of various planets personified, and designed to show the influence which the heavenly bodies exercise upon the fate of mortals. One was illustrative of 'astral-physiognomy,' the signs of the zodiac being painted on different parts of the face in a woman's portrait. There were, besides, schemes of the nativity of the Queen, the Prince of Wales, the Empress of the French, Constance Kent, and others. Upon a table lay a large 'Book of Fate,' bound in morocco leather, stamped with mystic signs in gold. On opening it at a place marked by a satin book-marker witness found a blank scheme for nativity on one page, and on the opposite page some large cabalistic symbols. These two pages were much soiled, but the rest of the book had evidently not been used. John Carter, who accompanied the last witness, found the prisoner sitting at a table with the 'Book of Fate' open before him, and turning a machine called the magic mirror, into which a girl was looking, in order to see her future husband."

This magic mirror was likewise used—or, at all events, exhibited—by Professors Cicero and Baretta. Mr. Pain, who defended one of the party, argued that while the magic mirror at the Crystal Palace was tolerated, it was unjust to prevent these unfortunate philosophers from exhibiting the same toy; but the ruthless magistrate declined to discuss the point, and sarcastically remarked that "the Crystal Palace was not in his district." Happy Crystal Palace!

Would any course of education, even if it had been devised by Professor Huxley, have prevented these silly "thirty or forty young women" from throwing away their sixpences or (if they wished their nativities cast) their additional half-crowns? We doubt it. Among this class, everything that is printed is regarded as necessarily true, and they do not believe that a Professor can abuse their confidence. Men comparatively seldom fall a prey to these impostors, and the reason is sufficiently obvious. That it is not their common sense that keeps them safe from being cheated in this manner is well illustrated by a case that was tried at the Thames Police-court on the same day that the Professors were engaged in the Marylebone Court. Mr. J. W., the captain of a merchant ship, and about 40 years of age, *was* (alas! we cannot say *is*) the proud possessor of a handsome watch and gold Albert chain. Knowing the wickedness of London, he concealed these valuables in his boot—a Wellington boot, which he exhibited to the magistrate. In Radcliffe-highway he met a fair lady, whom he treated with wine, and afterwards accompanied home. After a time the woman left him "very hastily," which excited his suspicions, and he looked in his boot for his watch and chain, when he found that they, like his fair companion, were gone. He did not believe the woman would have abused the confidence reposed in her! "What confidence?" said the magistrate. The prosecutor said that he had told her *in confidence* where he had hidden his valuables. Alas! poor confiding human nature!

THE SMALL-POX EPIDEMIC.

Another trifling decline in the deaths from small-pox was recorded last week—namely, from 240 to 232. The distribution of the deaths gives as results—West districts, 30 deaths; North, 53; Central, 20; East, 38; and South 91 deaths. These numbers show an increase in the West and South of London, and a decrease in other districts. The greatest fatality was in Battersea, Clapham, and Southwark. In Liverpool the small-pox is subsiding more rapidly than it is in London, and it is also giving way in Southampton. In the North-Eastern ports —Grimsby, Newcastle, and Sunderland—it is five or six times as severe as we have had it in London. During the fortnight ending last Saturday 89 deaths from small-pox were registered in Sunderland alone—equal to an annual death-rate of 22 to 23 per 1000 persons living. The deaths in Newcastle in the same period were 49. Looking back to the Continent, we learn that no epidemic is now prevailing in Paris; but in Berlin, where small-pox has been epidemic for the last three months, 164 deaths were recorded last week from this disease—equal to an annual death-rate of 12 per 1000.

At this season of the year, when not only Londoners, but the well-to-do population of other large towns, are usually contemplating a migration to one of their customary health-resorts, it would be, by a great many people, regarded as a boon if the Registrar-General added to his weekly statements a paragraph giving the facts as to the prevalence of small-pox or scarlet fever in the most important of these places. Of course we know that everyone can protect himself and his family against any danger from the former; but against the latter there is no safeguard whatever for visitors, except a previous attack of the disease. But even in the instance of small-pox, it is not a pleasant idea for a timid or nervous person to harbour, that he or she is likely at all, when taking a summer holiday, to be jumping from the frying-pan into the fire. In illustration: We were informed about two months ago that the small-pox mortality of Weymouth was at an annual rate of 32 per 1000 living. What is it now? Weymouth is a favourite resort of some people, and many persons break a long journey there, as on their way to the Channel Islands.

It is to be regretted that the National Association for the Promotion of Social Science does not know its own mind. It will be recollected that about a month ago Dr. Lankester

delivered an address before the Association, in which he urged that it was desirable that immediate steps should be taken for the suppression of small-pox. Thereupon the Committee of the Association determined to send up a deputation to the Lord President of the Privy Council, and (we suppose after mature deliberation) it was determined that the special object of the deputation should be the urging upon the Government to put in force the Diseases Prevention Act, 1855. We do not quarrel with this, but with the way in which the whole affair was muddled by the Association. They have lost a good opportunity of pointing out the fact that, although probably all necessary powers for the suppression of small-pox are given by the Sanitary and Vaccination Acts, the local authorities will not use them, except under direct order from the Privy Council; and that the main advantage of putting in force the Diseases Prevention Act would be the pressure it would impose upon negligent boards of guardians and sanitary authorities in invaded districts. To give them advice is one thing; to order them distinctly to do certain acts is quite another thing. They treat advice with contempt, resting on their own all-sufficient wisdom; but to disobey an order from the central sanitary authority of the nation, in the presence of an epidemic severe enough to call it forth, would be to raise a storm of popular indignation which they would be little disposed to face.

SYPHILIS AND VACCINATION.

The Committee appointed by the Royal Medical and Chirurgical Society upon the cases of vaccino-syphilis referred to in Mr. Hutchinson's papers, made their report on Tuesday evening. They state that they saw three of the cases in each series, and also the two vaccinifers. We are sorry to say that the Committee confirm the inferences of Mr. Hutchinson. They have seen no reason to doubt the fact that syphilis was in each series conveyed in vaccination, but whether through the medium of the lymph, or of blood, or both, they are not prepared to state. At the same meeting it was announced that Mr. Hutchinson had forwarded an appendix to his former papers, but it was not read in consequence of the meeting being the last for the session. We are far from wishing to throw undeserved obloquy upon the practice of arm-to-arm vaccination; but it cannot reasonably be expected that the public, who are always more open to unfavourable than to favourable reports, will ignore the facts now established. There is a danger—infinitesimal indeed, but still a danger—and they will demand to be protected from it. No one who knows what syphilis is, and how it impresses its stamp upon a whole lifetime, will say that such a demand is unreasonable. At the present moment no one can tell how often a similar accident has occurred before; for these cases can scarcely be believed to be unique. And the question which now presents itself to us is, what steps the Government intends to take to provide that the population shall not plead danger as a bar to the vaccination of their children. Much has been written about the non-success of heifer vaccination, and much which is of questionable authenticity; but, after all, it is due to the public that the alternative should be offered of vaccination from the child's arm or of vaccination from the calf. In London, Manchester, Liverpool, and other large towns, we certainly think that, at definite and short intervals, an animal vaccinifer should be provided by the State for the use of persons who object to arm-to-arm vaccination. A few calves thus provided at large centres of population would suffice for the exigencies of the case, since it has been shown that the lymph can be preserved for several days upon thoroughly charged points, and, if then used by the method of scarification, is nearly as efficient as humanised lymph.

The donations at the annual dinner of King's College, on Thursday fortnight, amounted to £4500.

THE WEEK.

TOPICS OF THE DAY.

The General Medical Council holds its meeting this year at its miserable apartments in Soho-square. Surely, with the large funds accumulated in the hands of the Council, a more suitable place of meeting might be provided.

The Lunacy Regulation Amendment Bill, which has been sent from the Lords to the House of Commons, seems likely to be a useful piece of legislation. The main clauses in the Bill recognise a variety of mental affection which our law has failed to recognise before. "Persons of weak mind" are defined by the third clause of the Bill to be those "whose mental capacity is so affected by sickness or any other temporary cause as to render them incapable of managing themselves or their affairs." The Lord Chancellor under the Bill has power, on the presentation of a petition and the establishment to his satisfaction of the fact that a person is of weak mind, to appoint a guardian of the person and his property, who shall direct his affairs. The "person alleged to be of weak mind" is to have personal notice of the application to the Lord Chancellor served upon him; the order made by the Lord Chancellor is not to be in force more than six months, and is not to be renewed more than once; the patient is to be visited by the Visitors in Lunacy as frequently as the Lord Chancellor may think necessary, who are to report on his condition. It strikes us that the Bill does not define on what evidence the weakness of mind is to be considered by the Lord Chancellor satisfactorily established. There is not a word said about Medical certificates or Medical evidence, and no inquiry under a commission of lunacy is to be issued. The law carefully provides that Medical evidence alone shall establish lunacy. Why it should not be judged to be equally necessary to establish temporary incapacity seems difficult to be understood.

The Vaccination Amendment Bill introduced by Mr. Forster makes the appointment of vaccination officers obligatory on boards of guardians, and gives a greater share of the supervision of the machinery of public vaccination to the Poor-law Board. But the Government have adopted the illogical and useless recommendation of the recent Vaccination Committee. Under the new Bill, if it become law, no person can be fined more than once in the full penalty of twenty shillings for refusing to have his child vaccinated, or more than twice in a mitigated penalty. It is not necessary again to expose the absurdity of this; it is most illogical. There is not another punishment the infliction of which frees the offender from all future penalties. It is certain to be perfectly useless, for anti-vaccination associations will be got up to pay all fines and to hold the subscribers harmless. If the Government intend to impose a tax on the non-vaccinated, Mr. Lowe had better embody it in his next Budget; but to call the tax a penalty for a public offence, and at the same time to tell the offender that, having paid it, he may persist in his evil course for ever unmolested, is the way to bring, not only vaccination, but the law into contempt.

The chemists and druggists are getting up a strong agitation against the Pharmacy Amendment Act, the chief provisions of which are to compel the Council of the Pharmaceutical Society to frame and enforce regulations for the storing of poisons in shops and warehouses, or, in default of the Society so doing, to vest the power in the Privy Council. The Metropolitan Chemists' Defence Association has published the following list of reasons upon which the Association opposes the Bill:—

"1. That the Pharmacy Act, 1868, does *not* demand the enactment of any such compulsory regulations, but merely gives permissive power to frame such, should circumstances arise rendering them absolutely necessary.

"2. That precautions of the most ample nature are already voluntarily adopted by chemists, both for their own protection as well as for the safety of the public; the occurrence of an accident making them amenable, under Lord Campbell's Act,

to heavy pecuniary penalties, in addition to the utter ruin of their business in the event of a fatal mistake being made.

"3. That cases of death by error in dispensing or retailing poisons are of the rarest occurrence. The records of such during the last ten years, giving an average below two per annum, proving the entire absence of any grounds upon which compulsory regulations can with justice be demanded.

"4. The great difficulty in framing regulations of such general and broad character as shall be of practical utility, and at the same time applicable to the various classes of the business, which differ widely according to locality.

"5. The exemption of Medical men, many of whom keep open shops in every respect identical with those of chemists', and by whom, in some districts, the larger proportion of dispensing and retailing of poisons is conducted, as also the exemption of Hospitals and Dispensaries, would render the supposed security illusory, and exhibit an arbitrary act of partial legislation."

On this subject we have only to say that the reason urged in its favour by the supporters of the original Pharmacy Act was, that it was to protect the public from accidental poisoning, and from the indiscriminate sale of poisons. This was the public advantage set forth as the reason for giving the Pharmaceutical Society the monopoly it at present enjoys. Nevertheless, accidental poisoning and criminal poisoning do not seem greatly to have been diminished by the Act. Under these circumstances it does not seem unreasonable to call on the Pharmaceutical Society to use all the powers given it by the Pharmacy Act to prevent loss of life from poisoning. Having said this, however, we are not prepared to add that power of superintending the sale of poisons is to be transferred from the Pharmaceutical Society to the Privy Council. If the Pharmaceutical Society fail in their duty, rescind their privileges, but do not subject a respectable trade to minute and vexatious interference from Government officials.

The President's Chair at University College, vacant by the death of Mr. Grote, is to be filled by Lord Belper.

The Committees of the Royal Colleges on the subject of the Conjoint Examination Board hold another meeting on Friday, June 30, at the Royal College of Physicians.

Hydramyle, the anæsthetic to which we referred last week, has been again administered during the present week by Dr. Richardson for short operations, and with continned favourable results. The vapour is so rapid in its action that, in a case of extraction of a molar tooth, by Mr. Peter Matthews, on Monday, the patient was rendered insensible, the operation was performed, and recovery was completed in fifty seconds. For tooth-extraction, Dr. Richardson lets the patient inhale for twenty or twenty-five seconds, and then, although there is still consciousness, he withdraws the vapour. After this, a deep but brief stage of unconsciousness comes on, during which the operation is carried out. The delay in the production of anæsthesia is due to the insolubility of the hydramyle—that is to say, after the lungs are charged with the vapour, time is required for the blood to take up the narcotic and carry it to the nervous centres. The same phenomena may be observed, in a lesser degree, from bichloride of methylene and from methylic ether. For short operations, such as tooth-extraction, the occurrence of deeper insensibility after the inhalation has been stopped is an advantage, and the fact that the insensibility intensifies for a short time, as stated, will have to be specially remembered by administrators.

THE ELECTIONS AT THE COLLEGE OF SURGEONS.

It may be well to remind the Fellows of the College of Surgeons that there are *four* vacancies to be filled up at the election of Members of Council next Thursday, and that there are *six* candidates. Three are retiring members, who offer themselves for re-election, and three are candidates who have not yet been on the Council. The three retiring members are Messrs. Cock, Busk, and Le Gros Clarke. We have repeatedly argued that re-election of retiring members should not be the rule, but should be the exceptional reward of unusually good service. We believe all three of the candidates who retire this year have done good service; but as Mr. Cock has been President, and still remains an examiner, we think he may well be satisfied with the share he has attained of College honours, and ought not to be displeased if the Fellows consider that he may now gracefully make way for some successor whose Professional work has not yet been rewarded by collegiate dignity of any kind. Guy's influence is strong, but English love of fair-play may prove to be stronger still. Of Mr. Busk and Mr. Clarke, we hear on all sides strong opinions in favour of their re-election. Mr. Spencer Wells is the senior of the three new candidates, and it is hardly possible that the Fellows would elect a junior over his head; but his strict determination not to canvass should lead his friends to exert all their influence in his favour, as a good deal of canvassing for other candidates is being carried on, and Fellows are very apt to give a vote to those who ask them for one, without much consideration for the claims of candidates who do not. We have expressed our opinion before, and now repeat it, that Messrs. Critchett and Holt are in every way well fitted to be elected to the Council, and we hope to see them there in their turn; but we should be sorry if any system of canvassing should succeed in placing either of these gentlemen above a senior fellow who is, at least, equally deserving of the good-will of his brethren.

FROM ABROAD.—M. LINAS ON THE PARIS COMMUNISTS—PROPOSED CONVERSION OF THE HÔTEL-DIEU INTO GOVERNMENT BUREAUX—LES AMBULANCES DE LA PRESSE.

M. LINAS, after recounting the dreadful scenes amidst which he figured during the last struggle in Paris, adds (*Gazette Hebdomadaire*, June 23) some interesting reflections:—

"Such are the facts, and I now have to appreciate them, as well as their authors, regarding them, as far as the subject admits of it, from a psychological point of view. To this I am indeed led, and even anticipated, by the good sense of the public. All, in fact, who speak or write of the events which were accomplished in Paris between March 18 and May 28, employ, with one common accord, such qualifying words as moral disease, mental aberration, dementia, convulsions, epilepsy, alcoholism, delirium, frenzy, madness, furious mania, monomania, etc. The London *Times* uses the term delirium tremens, and the Germans speak of morbus democraticus. These expressions, borrowed from the Medical vocabulary, are on every lip, and at the end of every pen; and I observe that most of those who employ them take them in their proper signification, and in no figurative sense. For, in truth, the acts of the Commune, and especially the last ones, are so strange and extraordinary, attain so high a degree of violence and monstrosity, and so surpass, by their odious attempts and horrible crimes, preceding insurrections, that they seem to have entirely passed beyond the limits of sound reason to enter within the domain of maniacal fury. In the eyes of the Physician, still more than in those of the vulgar, these acts look like an immense phenomenon of collective insanity; and his thoughts naturally recur to those great madnesses of the middle ages, which, bursting on entire populations, spread on every side terror, desolation, fire, and murder. He calls to mind, also, those transports of savage fury provoked by epilepsy and alcoholism, only to be quenched in blood, carnage, and destruction.

"Alcoholism! This is truly one of the worst of the social diseases of the present times. Who can describe the great part that has been played, first in our disasters and later in our civil strife, by this redoubtable poison, which overturns reason, slays conscience, extinguishes all noble sentiment, stimulates the worst instincts, and converts man into an ignoble brute or a wild beast of prey. We have not forgotten the severe orders of the day by which the unfortunate general Clément Thomas stigmatised during the siege the shocking scenes of debauchery, drunkenness, indiscipline, and cowardly defection which some of the battalions of the National Guard exhibited in the trenches in the very face of the enemy. It is also notorious that drunkenness was one of the most efficacious of the stimuli resorted to by the Commune to maintain the zeal of its adepts, to exalt the enthusiasm of its followers, and

to spur on the ardour of its combatants. It will be remembered in what a piteous state the Versailles troops found the defenders of the forts Issy and Vanves, while all testimony agrees in recognising that the majority of the incendiaries were such a prey to alcoholic excitement as to become deaf to the voice of humanity and inaccessible to all ideas of compassion. Is it meant, then, that we are to charge to the account of alcoholism all the frightful excesses which have sown so much ruin and mourning throughout Paris? Certainly not. Perversity, rage, hatred, vengeance, wickedness, and vice of all kinds, and the worst passions, have also largely contributed to the accomplishment of these terrible crimes. . . . . What, then, have been the motives for actions so abominable as these? What aims have their authors pursued? Social regeneration and proletarian emancipation? The extinction of pauperism? The elevation of the working classes? Universal happiness? Well, we can believe that among the *coryphei* of the Commune and the abettors of insurrection there were certain misguided minds sincerely carried away by communistic Utopias who believed in good faith that they were engaged in realising these chimeras. But side by side with these theorists, these dreamers and sophists, there was a large majority of demoniacs (*energumènes*), monomaniacs, and dangerous fanatics, individuals of cruel temperament and ferocious disposition. A not less formidable category was made up of libertines, idlers, limited intellects, incapables, persons who had lost their position, and the refuse (*fruits secs*) of all Professions. To speak only of our own, there were on the Commune some three or four equivocal or interloping Doctors of low position, whose names would be sought for in vain in any Medical directory, and who we are well entitled to deny as belonging to ourselves.

"Without wishing to exaggerate the importance of the system of Lavater, we cannot help recognising that on this occasion it receives a somewhat exact application. If we stop to look at the photographs of the members of the Commune which crowd the shop windows, or, better still, if we have seen these personages themselves at the Red clubs, where they were the habitual orators and favourite dignitaries, we cannot but be struck by their strange and forbidding physiognomy. With some rare exceptions, it is no intellectual reflection, but the type of instinct and passion which prevails. No nobility, elevation, or dignity can be traced in features which, for the most part, are wrinkled, withered, and deeply ravaged by the indelible traces of ardent passions. Some bear the inoffensive and sanctified expression of mystics and *illuminati*, while others exhibit that peculiar disorder of the head, and that inexpressible vacuity of the physiognomy, which are usually only met with in lunatic asylums. Finally, what is very characteristic in most of them is, the utter absence of all expansive and benevolent sentiment, and the predominance of perverse and depraved instincts, as shown in the strong impress of violence and hardness in the features, and the forcible expression of distrust, hatred, envy, and ferocity. Place side by side with some of these portraits those of persons upon whom great crimes have conferred a sad celebrity, and the resemblance is at once seen to be most striking. To sum up, it results from this short Medico-psychological sketch, that the Paris insurrection had, among its leaders, adepts and heroes, many men misled by dangerous sophisms or carried away by detestable propensities, a certain number of monomaniacs and *illuminati*, plenty of fierce and cruel beings, and a weak minority of sincere and convinced minds, but devoid of rectitude and good sense."

At the time of the construction of the Hôtel-Dieu, commenced some few years since, the Medical Profession offered the most vehement opposition to the enormous scale upon which this was contemplated, demonstrating, as far as history and probability could avail, that the proposed agglomeration of nearly a thousand patients in a lofty edifice insufficiently provided with means of ventilation, could only be the most disastrous of undertakings. The embellishment of the capital, however, required a grand edifice on a time-honoured site, and the protest was utterly disregarded. The building is now completed, and a hope has sprung up in the minds of some of the Profession that the great want of accommodation for some of the municipal and government offices consequent on the late conflagration may induce the Government to appropriate this vast edifice for the supplying a portion of its necessities. M. Hénocque, calling attention to the subject, points out that, unfitted as is the Hôtel-Dieu for the purposes of a Hospital, it might easily be converted into a means of accommodating numerous *bureaux*. There is good light, while the warmth and ventilation, however defective they might prove for an agglomeration of sick inmates, would amply suffice for working purposes. The three stories of which the edifice consists may be calculated to furnish 20,000 square mètres of surface, and, supposing each *employé* to have, upon an average, six square mètres, there would be found ample space for 3000 *employés*. It is heartily to be hoped that this vast building, which, according to the universal prognosis of the Profession, was destined, sooner or later, to become, as its predecessor so often had been, the home of erysipelas, purulent infection, and puerperal fever, may, under the pressure of economical necessities, be diverted to a more innocuous purpose.

M. Ricord, who, as Director of the Ambulances de la Presse, by his untiring devotion and courageous personal exposure to risks of every kind, from the commencement of the first to the end of the second siege, earned for himself the esteem and enthusiastic admiration of the Profession in Paris, has just published a summary of the report which he sent in to the Intendance. It is only a brief statement, preliminary to an elaborate memoir, on the operations of these ambulances which he is engaged in preparing. In this report he states that these ambulances were founded by means of voluntary subscriptions of a liberal character made by the French press at the time of the declaration of war; and that the sum subscribed, added to donations received from England, amounted to more than a million francs. Thanks to the remarkable activity of the *ambulances mobiles* of the Society, and the amount of the *matériel* which they had at their disposal, 22,199 sick or wounded were treated in them during the Prussian war, and 1924 during the civil war. Of course attention to the wounded formed only a portion of the duties which were performed. The sick and fever-stricken had to be sought for at the advanced posts and in the trenches, tended, and then transported either to the fixed ambulances or to the Hospitals. Five great ambulances, having several others at the advanced posts, in this way succoured 14,057 fever patients. The fixed ambulances, or temporary Hospitals, supplied with all they wanted, were nineteen in number, and these were brought into communication with forty-three small convalescent ambulances set up by private charity, and each only accommodating a few of the wounded. There was no want of Medical aid, 140 Doctors or Medical students, and fifty-two *pharmaciens* having cheerfully rendered their services, while the devotion of these was rivalled by that of from 250 to 300 *Frères des Ecoles Chrétiennes* who accompanied the ambulances to the field of battle, while from 225 to 250 of their number officiated as *infirmiers*. The whole community of the Sisterhood of Esperance also joined the ambulance, as did numerous volunteers, who officiated as carriers of the wounded, and often exhibited great bravery and devotion in their dangerous task. The number of wounded collected from battle-fields cannot be exactly stated, but at least they may be put down at 5000, who, added to 22,199 other wounded and fever patients, and 1924 Communists, furnish an important total of 24,123. M. Ricord finishes his report by stating his desire that these facts and figures should be brought under the notice of the Minister of War; for, by some unaccountable omission, these services have received none of the "well-merited recompenses" which it seems is the all-devouring ambition of Frenchmen to be decorated with.

PARLIAMENTARY.—THE VACCINATION ACT.

In the House of Commons, on Friday, June 23,

Dr. Brady asked the Secretary of State for the Home Department whether his attention had been directed to an announcement in the *Pall-mall Gazette* and the *Times* newspapers, that a public meeting was to be held at St. James's Vestry-hall, to protest against the Vaccination Act, in which the following appeal was made:—"Parents, attend and protest

against the tyrannical law which compels you to poison your children's blood in infancy;" and further announcing that members of the Vestry were to speak at said meeting; and, if so, whether he had made, or intended to make, inquiry into the circumstances of the hall having been appropriated to a purpose wholly opposed to the sanitary conditions of the metropolis.

Mr. Bruce said he had received from the Vestry Clerk an explanation, which he thought was satisfactory, of the circumstances of the case. The Vestry Clerk stated that a member of the Vestry applied for the use of the hall for a meeting to take into consideration the unsatisfactory state of the vaccination law. The vestry accordingly granted the use of the hall for that purpose, but the use of it would have been refused by a large majority if the Vestry had been aware that such advertisements as the hon. gentleman referred to were intended to be published.

THE APPLICATIONS OF ELECTRICITY TO MEDICINE.

II.

Electricity, as used in Medicine, is either static (derived from the friction of a glass-plate or cylinder), or dynamic (the direct product of chemical action), or induced from the contact-current by an induction-coil. Static electricity is not much employed. Contact-electricity or constant-current galvanism is of much greater importance; but its value is only now becoming fully understood.

In a former article on this subject (a) (*vide* p. 611, vol. i. 1871), we discussed these two varieties of electricity—viz., Frictional, or Franklinic Electricity, and Current, or Galvanic Electricity—and we considered them with special reference to the modern doctrines of force or energy. Putting on one side all further consideration of electricity as related to other forces, we shall next proceed to discuss that form of electric action which was discovered by our countryman Faraday, and which is commonly known as Induced, or Faradic Electricity.

The induced electricity (the interrupted current, or faradisation) is that most commonly employed, and is derived either from electro-voltaic or electro-magnetic instruments. In the former, the electricity is primarily developed by chemical action; in the second, by the rotation of a kind of wheel.

Suppose we construct a coil of copper wire, covered with silk to insulate it. This wire had better be rather thick, and the number of turns need not be great, especially if wound round a core composed of soft-iron wires. If now we construct another, also of copper wire, finer in character, and made up of a great number of coils, but built so as to constitute a cylinder, into which the former may be introduced, we have an induction apparatus. All that is now necessary is to connect the extremities of the thick wire with a battery, and the extremities of the thin wire with some object capable of testing the existence of electrical effects, when it will be found that the moment the circuit through the thick wire is closed the poles of the thin wire also give evidence of a galvanic current, stronger than that produced by the battery and passing in the opposite direction—this, too, without any direct communication between the contained and containing coils, the former of which is called the primary, the other the secondary. But when the current has been fairly established in the primary coil, its effects on the secondary cease until the former is arrested, when signs of a current, this time in the direction of the primary one, are again manifested by the secondary coil. Thus, in induced electricity the current is to and fro, and can only be produced by breaking or closing the primary current. To keep up its effects, therefore, some apparatus must be introduced, constantly opening and constantly closing this current. This is commonly known as the *trembler*.

But there is another form of induced electricity still more frequently employed. It is called electro-magnetism. Thus, if a bar of soft iron, shaped like a horse-shoe, be surrounded by either extremity of a coil of protected wire, wound in opposite directions, and if through this wire is passed an electric current, the iron bar is converted into a magnet. But suppose something quite the reverse of this—that is to say, a magnet, horseshoe-shaped and powerful—is the origin of the energy instead of a battery. If, then, we have two bobbins made of copper wire covered with silk, and surrounding soft-iron centres, the two being connected on an axis by a soft-iron plate; if, further, we have the means of causing these to rotate rapidly on this axis, either iron core coming close to both poles of the magnet in the course of its revolution, we have the well-known magneto-electric machine. Here magnetism is transferred with each approximation from the magnet to the soft-iron core; the soft-iron core in its turn induces an electric current in the copper-wire coils, whence by appropriate mechanism it is conveyed to the galvanometer or human body, as the case may be.

These are the two forms of electric force most generally employed in Medicine, chiefly on account of the ease with which they may be produced and applied.

A word next as to the means commonly employed of giving rise to current electricity, whether for applying it directly to the human system, or for producing an induced current for that purpose. This is attained usually by constructing a series of couples, forming what is known as a galvanic battery. The electricity so produced is, of course, current electricity, and this current is *continuous*. The current in the case of induced electricity, on the other hand, is to and fro, or, as it is also termed, *interrupted*. Now, in batteries constructed on the principles we have laid down—that is to say, made up of electro-positive and electro-negative plates, with a liquid intervening—there is great difficulty to be faced in rendering the current equable. Hence these have now generally fallen into disuse, and batteries with two liquids instead of one are commonly employed. The reason why the galvanic action of the two elements becomes enfeebled is twofold. Thus, in the zinc-copper combination, the sulphuric acid combines with the zinc, rapidly at first, more and more slowly afterwards, as the acid comes nearer and nearer to neutralisation. But this is not the principal difficulty; for, as sulphate of zinc forms, hydrogen is set free, and this clings most pertinaciously to the inactive copper plate, interfering with the circuit of the current; and not only so, but, by reducing some of the sulphate of zinc, it coats the copper plate with a layer of zinc, and so gradually approximates the character of the two plates.

To remedy this last difficulty a second liquid is introduced, and so placed that the hydrogen set free in forming the sulphate of zinc shall attack it rather than the inactive plate, which in this way is untouched, and thus the strength of the current remains unimpaired, so that the current so produced is known as the *constant* current. One of the best forms of constant-current battery was invented by the late Professor Daniell, and is known by his name. This is a zinc-copper battery, but the copper is immersed in a solution of sulphate of copper. Between this and the dilute sulphuric acid a diaphragm of glazed porcelain is interposed. By this means the two liquids are kept from uniting too speedily, without interfering with the passage of the electric current. When in action the hydrogen attacks the sulphate of copper, reducing the metallic copper which is deposited on the copper plate. The sulphuric acid passing in the opposite direction tends to renew the acid attacking the zinc. Provision is easily made to keep up the supply of sulphate of copper, and so the current remains constant for a very long time.

Some form of this battery is that most useful in Medicine, provided a constant current be desired, but only if the battery is to be stationary. The bulk of the elements and the mass of sulphate of copper crystals requisite, if it is to be used for any length of time, interfere with its portability. One of the best for the Practitioner, or rather, we should say, for Hospital practice, is constructed by Messrs. Elliott and Co., Strand. This will continue to act steadily for a very long time, but it is bulky, and cannot be readily transferred from place to place. As copper and zinc are not very far removed from each other in the electro-motive series, inventors have sought to increase the electro-motive power of a battery, by selecting as the negative element platinum or carbon. The former is the prin-

(a) A Treatise on Localised Electrisation, and its Applications to Pathology and Therapeutics. By Dr G. B. Duchenne (de Boulogne). Translated from the Third Edition of the Original by Herbert Tibbits, M.D., Medical Superintendent of the National Hospital for the Paralysed and Epileptic. Part I. London: Hardwicke. Pp. 322.

A Treatise on Medical Electricity: Theoretical and Practical. By Julius Althaus, M.D., M.R.C.P., etc., Physician to the Infirmary for Epilepsy and Paralysis. Second Edition. London: Longmans. Pp. 676.

Electricity in its Relations to Practical Medicine. By Dr. Moritz Meyer, Royal Councillor of Health, etc. From the Third German Edition, by W. A. Hammond, M.D., Professor of Diseases of the Mind and Nervous System, and of Clinical Medicine in the Bellevue Hospital Medical College, etc. New York: Appleton and Co. Pp. 497.

A Practical Treatise on the Medical and Surgical Uses of Electricity; including Localised and General Electrisation. By George M. Beard, A.M., M.D., etc., and A. D. Rockwell, A.M., M.D., etc. New York: William Wood and Co. Pp. 698.

ciple of Grove's, the latter of Bunsen's battery. In either case, nitric acid is used instead of sulphate of copper. This, being attacked by the hydrogen, produces nitrous acid, and so protects the platinum or carbon. These batteries are exceedingly powerful, but the nitrous acid fumes, evolved after a time, are extremely objectionable, and so chromic acid is frequently used as the reducing agent. The battery in most common use nowadays for Medical purposes is constructed on this principle. It is made by Stöhrer, of Dresden, and consists of zinc-carbon elements, with chromic acid as the reducing agent. Two forms are in use—one where one or two of these elements are employed to give rise to an induced current; another where fifteen or twenty are combined, for the purpose of producing a constant continuous current.

In all these batteries two liquids are used, but in Smee's battery a nearly constant current is obtained with one liquid by mechanical means. The elements are zinc-platinum, but the platinum plate is roughened by covering it with spongy platinum, whereby the disengagement of the hydrogen is greatly facilitated, and the resistance is reduced to a minimum. The most useful Medical battery for producing a constant current and, at the same time, retaining portability, is a modification of this, made by Weiss and Son, the well-known instrument makers.

SMALL-POX RETURNS OF THE ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.

New Cases of Small-pox occurring in the Public Practice of the undermentioned Districts.

Districts.	No. of Cases week ending						
	May 20.	May 27.	June 3.	June 10.	June 17.	June 24.	June 24. Sent to Hospital.
WEST—							
Chelsea	7	12	16	20	15	?	—
St. George, Hanover-sq.	9	15	17	21	10	10	10
St. James, Westminster	4	3	8	1	5	3	3
Paddington	15	?	?	?	?	?	—
NORTH—							
St. Pancras	117	116	113	77	68	?	—
Islington	42	50	36	52	35	26	16
Hackney	28	17	25	20	19	?	—
CENTRAL—							
City of London	11	8	17	10	12	10	—
Holborn	10	5	8	6	9	4	4
St. Luke's	17	12	13	13	16	16	14
EAST—							
Whitechapel	23	13	5	18	9	12	—
Poplar	11	14	?	?	?	?	—
Bow and Bromley	?	?	?	?	?	16	10
SOUTH—							
St. Mary, Newington	29	30	35	36	24	46	38
St. Olave, Southwark	2	5	5	2	1	1	1
Lambeth	26	24	22	23	?	?	—
Clapham	16	6	14	11	5	7	6
Wandsworth	1	5	6	2	—	4	?
Streatham	?	2	?	3	?	4	2
Lewisham	?	?	6	?	?	?	—
Camberwell	45	?	?	41	32	?	16
Greenwich	12	?	2	?	?	?	—
Plumstead	6	5	4	6	—	2	—

INFANTICIDE IN LONDON.—Dr. Lankester remarked, at an inquest a few days ago, on the body of a newly-born child which was found inside the gate of a lady's residence at Paddington, that over 300 bodies of children were found in the streets of London every year.

AN official report states the German loss of military Surgeons to have been 101—viz., seventy-two killed in battle, twenty-five died of disease, the rest by accidents. The loss is considered very slight, compared with other campaigns, especially with the Crimean war.

AT his request, the skull of the late Mr. Grote has been opened by Mr. Marshall, who has taken a cast of the brain.

NATIONAL ASSOCIATION FOR THE PROMOTION OF SOCIAL SCIENCE.

ON Tuesday last the Marquis of Ripon, as Lord President of the Privy Council, received a deputation from this Association, the reputed purpose of which was to urge upon the Government the putting into force the Diseases Prevention Act, 1855, with a view to the suppression of small-pox. The deputation was introduced by Dr. Brewer.

Dr. Lankester stated that the deputation had proceeded out of a paper which he had read before the Association, in which he maintained that the measures now being adopted for the suppression of small-pox were not efficient, inasmuch as the epidemic was running on severely still, and, in fact, we were not suppressing it. In the first place, no efficient attempts were being made to vaccinate the endangered population in the infected districts. In his capacity as coroner, he had considered it his duty to hold inquests in cases where deaths of unvaccinated persons arose from small-pox, and everyday instances were coming under his notice in which whole families of children were unvaccinated, and he had found that no one had ever called upon the parents to obtain vaccination for their children. He urged that such instances should be sought out, and that there should be in force an imperial system, by which the vaccination of unprotected children should be insisted upon, not in ordinary seasons, but as soon as ever small-pox breaks out in any district. The present plan of leaving the matter at such times in the hands of parish guardians has simply resulted in failure, since one parish may be active, while another is indolent, and the whole city suffers from the apathy of a portion of it. Secondly, he referred to the practice of concealing the occurrence of small-pox in families and houses, and mentioned an instance in which a case was thus concealed for three weeks, with the result of spreading the disease certainly to at least thirteen individuals. He considered that there should be some power of compelling the occupiers of houses to declare the existence of small-pox upon their premises to the local authority, or the Medical Officer of Health, so that an opportunity might be afforded of taking the necessary measures for preventing its spread. Thirdly, he urged that where there is no Medical Officer of Health, a special officer should be appointed to suppress small-pox. It should be his special business to take the necessary measures, or to see that they were taken. When cattle plague broke out special cattle plague suppression officers were appointed, and it is believed that great good resulted. If in any district the first case were properly taken in hand by such an officer, the extension of the disease might be stopped. He estimated the probable expense of the small-pox epidemic to the nation at not less than five millions, and it might have been stopped for a quarter of a million.

Dr. Mouatt dwelt upon the importance of a compulsory vaccination of a population invaded by small-pox, illustrating his remarks by his own experience for many years in the gaols in Bengal, and by the fact that on one occasion, when small-pox broke out in Java, the Dutch put a stop to it quickly by the compulsory vaccination of the entire population.

Mr. Liddle considered that the Government should put some pressure upon the local boards, with a view to compelling them to put in force the powers they possess, and should call upon them from time to time to report as to the Acts they were enforcing. There was power now to require the owners of lodging-houses to declare the presence of infectious disease in them, and he thought that this power should be extended to ordinary dwelling-houses. Now, there was one law for the poor and another for the rich. At the present time many parishes were without disinfecting chambers, mortuary and post-mortem rooms, on account of the difficulty of obtaining a site, and he considered that the parishes should have powers of compulsory purchase for these purposes. Referring to the Diseases Prevention Act he stated that, from its not being in force, there was often a difficulty in getting people who had died of small-pox speedily buried, and cited an instance under his own knowledge in which, on account of the poverty of the parents and their inability to pay for the coffin, the undertaker had detained the certificate for burial, and the body had lain unburied for nine days.

Mr. Pears, the general Secretary of the Association, stated that the objects that it was desired to attain were—1. Isolation by the compulsory removal of any small-pox case when there was more than one family in a house, or where several people

lived in the same room. 2. Powers of compulsory vaccination and revaccination where a neighbourhood was invaded, and systematic visitation for such purpose. 3. That Medical men should be required to report all cases of small-pox within their cognisance; and 4. That burials should be effected as speedily as possible.

After some further observations by Dr. Sarvis, in which he complained of the difficulty of obtaining the removal of patients to the Hospital under the existing law,

Lord Ripon remarked that he was under the impression that the object sought by the deputation was to obtain the enforcement of the Diseases Prevention Act, whereas it appeared to him that the observations of the several speakers pointed rather to the amendments which they considered ought to be made in the existing laws. With respect to the compulsory appointment of a vaccination officer, they were probably aware that this was included in a Bill now before Parliament. As to the suggestions with regard to other matters put forward, the Government must proceed deliberately—they must not be in advance of public opinion, but must carry it with them in anything they do; and he referred to the delicacy of interfering with such private matters as were alluded to by the deputation. With respect to the Diseases Prevention Act, he thought that under subsequent Acts local authorities possessed all the powers which that Act conferred—viz., of house-to-house visitation, for erection of mortuaries, etc.; and specially as respects small-pox, the putting in force the Diseases Prevention Act would only lead to a conflict of authority. Still, he promised to give his best consideration to the statements made to him, after which the deputation withdrew.

RATTRAY ON THE EFFECTS OF CHANGE OF CLIMATE ON THE HUMAN ECONOMY.

(*Concluded from page* 613, *vol. i.*, 1871.)

EFFECTS ON THE URINE AND PERSPIRATION—EFFECTS ON THE WEIGHT AND STRENGTH.

WE now proceed to consider the concluding portion of Dr. Rattray's memoir.

4. None of the secretions are more visibly affected by great changes of climate than *the urine and perspiration*. The following experiments were made by the author upon himself (aged 39) during the voyage to Bahia between June and September. During twenty-four days from Plymouth to the equator, drink (tea or coffee) being limited to thirty-nine ounces daily, the urine gradually decreased from thirty-nine to thirty ounces. On the two following days, when the heat was excessive, and he drank 88 ounces daily, he secreted thirty-six and a half and thirty-seven and a half ounces of urine, leaving fifty-one ounces of drink to be accounted for. From Dalton's well-known observations, he calculates that the skin exuded 27·02 ounces, and that the lungs exhaled 19·58 ounces, while 4·4 ounces were carried off by the bowels.

Contrasting the relative excretion of free fluid in the temperate and tropical latitudes, he finds that in the former, as compared with the latter, the free fluid excreted by the kidneys is as 59·54 to 42·04 per cent., that secreted by the lungs is as 26·97 to 22·25 per cent., and that secreted by the skin is as 8·55 to 30·7 per cent., while the excretion by the bowels is almost unaffected by climate.

On his return voyage, he took daily 88 oz. of free fluid, and was much struck with the oscillations both in the quantity of the urine and in the amount of its solid constituents, even in adjacent days. Thus, on three consecutive days taken at random, the urine amounted to 49, 71, and 52 fluid ounces, with 494, 290, and 266 grains of solids. The smallest quantity was forty-three and a half, and the largest eighty-two ounces. He gives a curious rule for enabling us to moderate our drink according to the temperature of the air. At 30° Fahr., five ounces of free fluid are required; at 40°, fifteen ounces; at 50°, twenty-five ounces; at 60°, thirty-five ounces; at 70°, forty-five ounces; at 80°, fifty-five ounces; and at 90°, sixty-five ounces. This fact, as he ventures to call it, "was proved by an experiment made in the Pacific in 1860-61, during his passage from Valparaiso (latitude 33° S.) to Vancouver (latitude 48° N.), when the drink was increased or decreased, with the desire."

The functionally-excited skin in hot climates acts as a safety-valve for the kidneys, just as the latter do for the former in cold ones. We cannot, however, accept our author's views that frequent changes of climate tend to develope the range of action in both organs.

5. Upwards of fifteen pages, containing eighteen elaborate tables, are devoted to the *Influence of Tropical Climates on the Weight and Strength*. The experiments illustrating this department of the subject "were made in H.M.S. *Salamander* during a voyage of five months to, and a subsequent stay of three years on, the east coast of Australia, while making triennial trips between Sydney (latitude 34° S.) and Cape York, Torres Strait (latitude 10½° S.), a distance of 1700 miles in a nearly north and south direction." The crew consisted of 209 men, of whom 129 were between 15 and 25 years of age, sixty-three between 25 and 35, sixteen between 35 and 45, and one between 45 and 55, and all were in good health.

The first table, illustrating the effect of tropical weather alone on the weight, is based on eighty-five weighings, and shows the effect of three and a half months' exposure to an average temperature of 82° F. Of the eighty-five cases, 64½ per cent. had lost flesh (the average loss being five pounds). Though greatest among the adults (71 per cent.), and especially the higher ages (77½ per cent.), it was large even among the juniors, of whom 54 per cent., instead of growing, lost considerably. During the 100 days that elapsed between the two weighings (made as they entered and quitted the tropics), salt meat was issued on thirty-six days, and fresh (preserved) meat on seventy-two, while lime-juice was given out on sixty-one days. Of fifteen officers and men subsequently tested after seventeen days' more prolonged and direct solar exposure, but with a larger allowance of fresh meat, eleven had lost from one to nine pounds (average three and three-elevenths pounds), one being unchanged, while three had gained weight. "This," says the author, "shows that the wasting effect of tropical weather on the adult white is not preventible, even by judicious regimen." Considering the mawkish, unsavoury taste of many of the preserved meats supplied to the Royal Navy, we cannot help feeling that "judicious regimen" is rather a strong expression. Had the persons thus experimented on been fed on such fare as our great passenger steamers issue, the weighing might have given a different result.

The second table shows that the loss of weight is considerably increased on an almost purely salt meat diet. The season being the same, though the exposure was only for thirty-two days (eighty less than in the previous observation), no less than 81 per cent. of the seventy-six persons weighed lost on an average four pounds. The more prolonged the time of exposure is, the greater apparently is the loss of weight. After a stay of a year at Cape York, eleven marines, fed on a mixed fresh and salt meat diet, lost weight to the average extent of eleven and nine-elevenths pounds.

The third table shows that if a third injurious influence—namely, hard subsolar work—is added to the preceding ones, the body is still further affected. In an experiment based on 103 cases, and extending over 104 days, of which sixty-two were spent in the tropics and forty-two in the temperate zone, the average loss of weight was seven pounds, the seniors suffering the most.

The next two tables show that season materially influences the reduction in weight. While the number who lost flesh in the dry season was 44 per cent., it was 76 per cent. during the wet monsoon. The sixth table is very instructive in showing "how much and rapidly the system rebounds under an opposite change of climate, and when removed from excessive warmth, into a healthy temperate climate, with a fresh meat and vegetable diet, light work, frequent leave."

After a fifty-four days' stay at Sydney in spring, no fewer than 90 per cent. of eighty-three sailors who were weighed had either gained flesh or lost nothing, the average gain being as much as six pounds. The loss of weight in the small remainder occurred among the juniors, and was probably due to causes which might be readily explained.

During the three years over which the triennial trips from Sydney to Cape York extended, the weight of the crews was continually oscillating, increasing at Sydney and decreasing on the return to the tropics. The seventh table shows that, notwithstanding the invigorating influence of the periodic returns to cool weather, 44 per cent. of the original crew, in a year and a half, had lost flesh, while the health and strength of all had declined. During the next year and a half the crew had more fresh meat in their northward trips, the beneficial influence of which is shown (in the eighth table) by reducing the percentage of those who lost flesh to 28½, as well as by a diminution in the percentage of loss.

The ninth table shows that after a fifty-five days' passage from the cool climate of England across the equator to the

south temperate zone, 63 per cent. of the crew had lost flesh to an average of nearly seven pounds, the seniors suffering more than the juniors. These results were not due to a decrease in the food, as the daily consumption during the last week averaged six ounces more than during the first. The cause was, therefore, partly climatic and partly dietetic, salt meat being issued on fifty of the days. The effect of a forty-four days' voyage from the Cape of Good Hope to Sydney, along the fortieth parallel of south latitude, and after a health-infusing stay of fifteen days at Simon's Bay, was, as is shown in the tenth table, very different; only 19·7 per cent., or twenty-six out of 132 sailors, lost flesh, and the loss was very trifling in these cases. These were all seniors, all the boys and younger men actually gaining in weight.

The eleventh and twelfth tables show the effects of voyages of 144 and 230 days on the weight. From the latter we learn that "though fifty-five days in all were spent at Madeira, Simon's Bay, Sydney, and Brisbane, on a health-giving fresh meat and vegetable diet, and lime-juice was freely given, the monotony and confinement of 175 days at sea, with 156 salt-meat days, a double exposure to the tropics and frequent changes of temperature, had increased the number who had lost weight since leaving England to 65 per cent.—a decided index of failing health and near approach to disease."

Passing without remark over the thirteenth, we shall consider the conclusions that may be deduced from the fourteenth table, which contrasts the variations in weight during a long voyage (of eighty-eight days from England to Bahia) of the men, boys, and naval cadets. During the first fifty-seven days 85 per cent. of men (of whom 425 had been weighed), but only 56 per cent. of the boys (64 in number), and 58 per cent. of the cadets (60 in number), lost flesh. During the first eighty-eight days (when 296 men, 40 boys, and 58 cadets were weighed) the percentages were—men 88, boys 60, cadets 65. Further, while 53 per cent. of the men (310) began to recover weight during the last thirty-one days of the voyage, when a cooler atmosphere was entered, 73 per cent. of the boys (41) and 58 per cent. of the cadets (59) did the same. Subsequently, after twenty-eight days' stay in harbour in England, while 89 per cent. of the men (391) gained flesh, the percentage was 90·5 among the boys (34) and 100 among the cadets (28). The greater age and strength and the rougher early life of the boys enabled them to bear the voyage better and recover sooner under favourable agencies than the delicately-trained cadets; while, on the other hand, a generous diet and better regulated life caused the latter to increase more in England. The cadets during the month in harbour gained, on an average, 1½ lbs. per week, which Dr. Rattray regards as about the healthy rate of growth at their age (viz. from 14 to 17).

In a subsequent table the author compares the effects of a tropical climate and other influences on the weight. The results are compiled from a combination of several preceding tables, and show that while under general conditions only 9·6 per cent. lose flesh, an injurious diet raises this to 19·7 per cent. Under a tropical climate the percentage rises to 64·7, while under the latter and salt meat combined it ascends to 65·2, and in the rainy season to 76·3. If to these influences hard work be added, the percentage rises to 91·3 per cent. Hence a tropical climate is more deleterious by far than any of the other agents.

"The cause of this reduction in weight in the tropics (says Dr. Rattray) is threefold: first, a diminished necessity for surplus fat, which becomes absorbed; secondly, that peculiar and not easily explained physiological effect of heat, which causes the tissues to decay faster than in cold latitudes; thirdly, diminished lung-work and blood-oxygenation, and thereby an imperfect renewal of tissue."

From the preceding facts, and others of a similar nature which we have passed over from want of space, the writer draws the following "important hygienic and therapeutic indications":—

1st. That the tropics, especially during the rainy season, should be avoided by natives of colder latitudes.

2nd. That the young, the debilitated, and the diseased should especially shun warm regions.

3rd. That none but full-grown, healthy adults should go there.

4th. That with all, even the latter, a speedy exit should be made therefrom when great loss of flesh and strength gives warning of approaching disease.

5th. That such injurious agencies as may increase the weakening and disease-inducing influences of tropical climates, of themselves irremediable, should be avoided—*e.g.*, faulty diet, over-fatigue, impure air, etc.

6th. That, to preserve health, a tropical climate should be frequently changed for the more temperate ones of higher altitudes or latitudes.

Since this paper was in type we have received a Blue-book containing a "Summary of the Cruise round the World of the Detached Squadron, 1869 and 1870." The squadron, consisting of nine ships, under the command of Admiral Hornby, started from Plymouth on June 19, 1869, and returned to that port on November 15, 1870, having been absent from England 515 days, and actually at sea for 409 days. The route was as follows:—Madeira, Bahia, Rio Janeiro, Monte Video, the Cape, Melbourne, Sydney, Hobart Town, New Zealand, Japan, Vancouver's Island, Honolulu, Valparaiso, Bahia, home. We extract the following paragraph, as it contains an independent confirmation of Dr. Rattray's views:—

"The health of the crews was remarkably good throughout; the number of sick seldom exceeding, on any passage, a mean of 4 per cent. of the number of persons borne, and generally below that; on some passages little over 2 per cent.; and the loss to the squadron by deaths (including accidents), persons invalided, and those left behind in Hospital, not invalided, but unable to proceed with the squadron, was only 3·4 per cent. Doubtless much of this result is owing to the excellence of the provisions which were sent out to meet the squadron at different places, more especially the salt beef, preserved meat, and biscuit, which were specially the subject of comment in the squadron, and to the following measures which were taken to preserve health:—Fresh meat, vegetables, and soft bread were issued to the crews during the stay of the ships in harbour; and, when the weather would permit of its keeping good, two days' allowance of meat and vegetables was taken to sea. At Yokohama, Honolulu, and Bahia, live bullocks, equal to four or five days' consumption, with a larger quantity of vegetables, were also taken to sea, and issued after a few days' salt meat rationing. In the *Liverpool*, which may be taken as an example of the squadron generally, fresh meat was issued on 133 days, preserved meat on 94, and salt meat on 289 days; lime-juice was also issued on 344 days. In severe weather, chocolate was issued to men of the middle and morning watches, and was much appreciated by them—in, fact, some men, who did not care for their daily allowance of grog, asked for, and were allowed to take up, chocolate instead. Yet, in face of the apparent healthiness of the cruise above shown, and the precautions taken to preserve health, the following statistics, which were collected in the *Liverpool*, from actual weighing and measurement, would appear to show that the effect of the cruise has been to stunt the physical development of the boys, and to reduce the stamina of the men:—Soon after leaving England, 25 grown officers, 70 marines, and 269 seamen were weighed, and found to average 151·79 lbs., and the same persons, as nearly as possible, were again weighed when close to England on the return voyage, and found to average only 145·94 lbs; 98 growing youths (comprising 29 officers and 69 boys), were found to average 123·14 lbs. at starting, and the same persons, as nearly as possible, 130·82 lbs. on returning. The average height of the boys had only increased from 63·79 in. to 65·07 in., and their average chest measurement from 33·91 in. after full inspiration, and 32·22 in. after full expiration, to 34·26 in. after full inspiration, and 32·78 in. after full expiration. Their average age at starting was 16 years 10 months."

Loss of French Autographs.—M. Amédée Latour, in No. 10 of the *Union Médicale*, describes the devastation committed at his house at Chatillon during the first siege of Paris, and stigmatises in the severest terms the brutal and disgusting conduct on the part of the Prussians who occupied the village, and of which he was an ocular witness. His ravaged house, burnt or looted furniture, his pillaged cellar, his devastated garden, and even his well poisoned with the *débris* cast into it, were, however, not his greatest calamities. Besides these, he has to lament the irreparable loss of an invaluable and unique collection of Medical autographs, which he has been collecting for more than forty years, and which were all arranged and labelled. They comprised many thousand specimens, among which were notes or letters (some of great importance) of almost every Medical man of eminence, living or dead, of the present half century. He fears that they have been purloined, for other papers of no consequence, which were in the same cupboard, have been found intact or torn up. He fears his manuscripts have only been too carefully examined, and hints suspicions of two German *confrères* attached to a neighbouring ambulance.

WRITERS ON SCIENCE.

At the recent dinner of the Literary Fund, when the Bishop of Winchester presided, Dr. B. W. Richardson was asked to return thanks for the toast of "The Writers on Science." He said:—

"If you, my Lord Bishop, with so full a measure of choice thoughts and current of eloquent words always at your command, should express yourself embarrassed with so old a toast as "the toast of the evening," what shall I do in responding, on an hour's notice, to a toast so new to me that I doubt if I ever before heard it proposed in a public assembly. As I have sat here listening to the many excellent speeches, and especially to the hearty speech of Sir Henry Anderson, a broken dream of the men classed as writers of science has passed before me. Who are the writers on science? Are they as well known as other great writers? They are not. They are less fortunate, and, therefore, the more worthy of the exceptional honour you would bestow on them. Excuse me a moment or two while I indicate the peculiarities of the position of the writer on science. He is a man communicating to the world that which is, by comparison, new to the world. The poet can cast back for his models to a time when the Greeks had not so much as the figment of an alphabet. The theologian may go back for his lesson to the earliest manifestations of the life of intellect on the planet. The historian finds subject and matter ready for his hand from the oldest and remotest, as well as the newest, writings and traditions of races and peoples. The story-teller is embarrassed with the richness of the past, and troubled by the greed of his admirers for more of his work. These all, indeed, are but the continuing interpreters of things, events, thoughts, which every man who claims to read claims also to understand. The writer on science has none of these advantages; he is but newly born into an old world of thought, and is not simply telling of new wonders, but is often himself learning at the same time as he is instructing an audience unlearned in his knowledge. Thus he comes slowly into the recognised brotherhood of men of letters; at the best he speaks to but a small audience, amuses rarely, excites, sometimes, without intention, hopes that are delusive, and requires always, in order that he may be fairly understood, a degree of patience it is vain to expect from the multitude. To these difficulties others are added belonging to the work he accomplishes. The most original writers on science are destroyed, constantly, by the magnitude and overpowering character of the work they have written, and by the practical results that spring from the work. In other literature the book produced lives as the book, and the learner from it, age after age, must go back to the fountain-head to drink and drink; in science-literature the book sinks into the fact it proclaims, and the fact remains the exclusive master of the field. A striking example of this flashes across my mind at the present moment. Every reading man and woman knows that in the reign of Queen Elizabeth the book of Shakspeare's plays had its origin, and nearly everyone who has read that book (and who has not?) remembers the curious saying in it, 'I'll put a girdle round the world in forty minutes.' But how many are there who have read another great book of that same reign, entitled 'De Magnete,' or are aware that at the time when Shakspeare was writing his now familiar phrases, the author of the book on the magnet, the Queen's Physician, one William Gilbert, when his daily toils of waiting upon the sick were over, was working with his smith in the laboratory at his furnace, needle, and compass, was writing up for the first time the word 'Electricity,' and was actually forging the beginnings of the very instruments that now, in less than forty seconds, put the girdle round the globe? Again, writers on science are lost sometimes in the blaze of their own success. They raise wonder by what they do, and fall beneath it. All knowledge newly born is miracle, but by-and-bye, as the knowledge becomes familiar, the miracle ceases. In this way advances in science become part of our lives, while the men who write them down cease to us. When the Leyden jar was first described, Europe was mentally as well as physically convulsed with the thing; now a Leyden jar is a common object—we all know it; but how few know of Mr. Cuneus, who first described this instrument of science. The whole civilised world is cognizant in this day that communication from one part of the world to the other, by telegraph, is almost child's play; but how many have seen or heard of Mr. Cavallo's original essay on 'Electricity' as a means of communicating intelligence to places distant from each other? There is nothing more commonplace in our day than to know that a living human being can be placed in gentle sleep, and, while in blissful oblivion, can have performed on him what were once the tortures of the Surgeon's art; but how few have heard or seen Sir Humphry Davy's paper announcing to mankind this grand beneficence. These are some of the difficulties of writers on science; and yet there is another I must name, be it ever so lightly. I refer to the desperate struggles of the man of science who has nothing but science to carry him on in life. None but such as are placed as I am, practising as Physicians in this metropolis of the world, and admitted at the same time, as men of science, into some knowledge of the subject upon which I now speak, can form a conception of the almost hopelessness of the position of the pure scholar in science. On this I say no more. I would awaken, but not weary, your sympathy. Ladies and gentlemen, in speaking of writers on science, you will say, perhaps, I have spoken in sadness. It is not so; much of the difficulty these writers have had to bear I recognise with admiration as their truest glory; and I see that hope for better worldly prospects is near. A profession of science is, no doubt, organising. The world is at last asking men of science to employ themselves in teaching the world; and the teachers, bending to the labour, are, in their turn, willing to suspect that they are but as children, or, at best, youths in the race after knowledge. This is most hopeful; and it is hopeful also to find that men like you, my Lord Bishop, who claim to be the conservators of a knowledge that was matured when science was unborn, are listening now to our scholars with an attentive ear, and are beginning to accept that the Lord of Nature, whether He reveal Himself to the ancient law-giver in the burning bush that was not consumed, or to the modern astronomer in the burning glory of the omnipotent sun, is one and the same Lord. Thus there is hope, I may say certainty, in the future for the literature of science; for its poetry, its parables, its facts, nay, even for its religion. I might bring proof of this belief from many sides. I am content to find it here; that in an assembly so distinguished writers on science should have been so enthusiastically remembered, and my poor attempt at reply so generously received. For both kindnesses from my heart I thank you.

GENERAL CORRESPONDENCE.

CHLORIDE OF ALUMINIUM AS AN ANTISEPTIC.

Letter from Dr. A. Ernest Sansom.

[To the Editor of the Medical Times and Gazette.]

Sir,—I am sorry that any statements in my book on "The Antiseptic System" have given offence to Mr. John Gamgee. In your correspondent's letter these are cited as comments "on himself and chloralum," from which, and other expressions, it might be inferred that they were calculated to give rise to personal irritation. I am at a loss to discover how it is possible for them to bear such an intepretation; but if they may be so construed, I beg to express my apologies, and to assure Mr. Gamgee that nothing could be farther from my intention.

I have said that chloride of aluminium is not a novel antiseptic application; that experiments have formerly been made with it in this country and in France. It was noted as an antiseptic by Dr. Angus Smith, and its comparative efficacy was investigated when it was mingled with blood and with sewage matters. ("Appendix to Third Report of Cattle Plague Commissioners, 1865," pp. 165, 172, 181; "Disinfectants and Disinfection," Edinburgh, 1869, p. 88, etc.) In France it was employed before 1862. M. Lévy, in his "Traité d'Hygiène" (editions 1862 and 1869), records that the "Compagnie Maritime" of Paris proposed a plan for disinfecting all dead animals which might become centres of putrefaction; the antiseptic agent to be employed was either the chloride of aluminium or perchloride of iron. ("On exploirrait pour la conservation le chlorure d'aluminium ou le bichlorure de fer." Lemaire, "De l'Acide Phénique," p. 321.) The animal substances to be disinfected were soaked in the antiseptic solution, or the latter was injected into the arteries of the dead animals. M. Lévy says:—"My colleagues — Trebachet, Chevallier, Fourvel, Jobert (de Lamballe)—and myself have examined, in the laboratory of Aubervilliers, muscular and other structures, which, after an immersion of six hours in these liquids, had been preserved in a state of remarkable suppleness and freshness." ("Traité d'Hygiène," etc., vol. ii., p. 455.) Surely, in

face of these facts, I could arrive only at the conclusion that chloride of aluminium was not an antiseptic novelty, and it was only just that I should say so.

It can scarcely be urged that I have been unfair to chloride of aluminium when I have distinctly recommended it (in page 203 of my book) as a most efficient agent for the disinfection of sewage in the presence of water—a wide field of usefulness. And as a Surgical antiseptic I have not condemned it, but have said that its position must be as yet *sub judice*. My opportunities of judging concerning it can only be from published records; and I contend that it was impossible for me, from the evidence which I observed, to arrive at any other conclusion than that I expressed. If my statement is "bald," it is because the evidence is not luxuriant.

I am, &c., A. Ernest Sansom, M.D.

Duncan-terrace, June 26.

BRITISH MEDICAL ASSOCIATION.

Letter from Mr. Sampson Gamgee.

[To the Editor of the Medical Times and Gazette.]

Sir,—I have the honour to request publication of the accompanying correspondence, and to subscribe myself

Yours, &c., Sampson Gamgee.

18, Broad-street, Birmingham, June 26, 1871.

"18, Broad-street, Birmingham,
"June 24, 1871.

"William D. Husband, Esq., F.R.C.S., J.P., President of the Council of the British Medical Association.

"My Dear Sir,—The more carefully I consider the notices of motion for the next annual meeting of the Association, published in your name in the *British Medical Journal*, the more deeply am I impressed with the sense of their great importance.

"The laws of the Association are, I believe, twenty-seven in number, and of these no less than twelve are affected, several radically, by your notices or motion. I think our associates might be assisted in forming a correct estimate of the changes you propose to effect, if you deemed it advisable to direct the publication in an early number of the journal of the laws as they are now in force, and as they would be if your notices of motion became law.

"It appears that you propose that the Secretary shall no longer be a member of the Council, or of the Committee of Council, but that such officer shall henceforth reside in London, and devote the whole of his time in the business management of the Association, and of the journal-office. Without venturing to express any opinion on the advisability of effecting such a change, I submit that it is not merely an administrative alteration, but deeply affecting the fundamental principles on which the Association was founded.

"When it was deemed advisable to change the name of our body from the Provincial to the British Medical Association, it was generally felt to be in the interest of the Profession to maintain the independence of the Association from those metropolitan influences which have hitherto centred so powerfully in the Medical corporations, and have militated in favour of the few against the general interest of the great body of Practitioners throughout the country.

"The events of late years have not detracted from the cogency of arguments formerly held to be valid in favour of an independent organisation of the Profession.

"It has been stated that, as at present administered, the British Medical Association has become practically a great joint-stock enterprise for the publication of a weekly journal, which absorbs nearly the whole of the Association's income. Hitherto the independent action of the Secretary, a Medical Practitioner, residing in the provinces, and having a seat on the Council and the Committee of Council, has secured to the great body of Practitioners an official representative not under the control of the journal; but if the Secretary is to be reduced practically to the position of a paid clerk residing in London, and charged with the business management of the journal-office as well as of the Association, he must be subordinate to the editor, or in business matters co-ordinate with him, in authority. The latter alternative would be incompatible with good government, while the former would inevitably lead to such a centralisation of power in the editor of the journal, as to render him practically for the time being the master of the Association.

"I do not observe that you contemplate making any alteration in Law 32, concerning the audit of accounts. Hitherto it has been held, though by no means unanimously, that the independent position of the Secretary and the editor acted to some extent as a check on the financial arrangements. If, however, you purpose to make the Secretary a clerk in great part subordinate to the editor of the journal, an official public auditor of the accounts could scarcely fail to give general satisfaction, the more so since no official denial has been given to the rumour current, on very good authority, that the funds of the Association have lately suffered materially from the action, which I do not attempt to characterise, of one of its subordinate servants.

"The British Medical Association has adopted a policy with the avowed intention of influencing the Legislature in the reform of the Medical Acts. Five of our most distinguished associates amongst the leaders of the Medical Profession in the three kingdoms have recently resigned all connexion with the Association on questions vitally affecting its management. Is it too much to presume that you have taken these facts into full consideration with your colleagues on the Committee of Council, before giving notices of motion to which I refer? If the assumption be correct, is it not reasonable to look to you for a statement of the reasons which have lead you, at so critical a period in its history, to propose so extensive organic changes in the management of the Association?

"Since your proposals open up the whole question of the government of our body, it is essential that full opportunity be given for discussion, and I suggest that you give notice of a special meeting during the approaching annual meeting for the discussion of your notices of motion. I intend forwarding copies of this communication to the Medical journals, but shall not do so before the 27th inst., so that I may transmit with it a copy of any reply with which you may favour me.

"I am, Dear Sir, faithfully yours,
"Sampson Gamgee."

"36, Bootham, York, June 26, 1871.

"My Dear Sir,—The most important alteration in the laws of which I have, at the request of the Committee of Council, given notice in the journal, will only be proposed at Plymouth, if the members agree to the proposal which will be submitted to them, to improve the business working of the Association and journal-office.

"The Committee of Council will fully submit to the Council, and, if the Council approve, to the meeting, the reasons which have induced it to recommend the proposed changes in the working of the Association. These changes can in no way lead, as you fear, to metropolitan or editorial supremacy, as the election of the governing body by the members generally (so vast a proportion of which reside in the provinces) will not be affected.

"The meeting must decide when the discussion on the report of the Council shall take place.

"I had, before receiving your note, taken steps to have the proposed alterations in the laws printed in the journal in a form which renders them more intelligible to the members.

"I am yours very truly, "W. D. Husband.

"Sampson Gamgee, F.R.S. Edin."

"18, Broad-street, Birmingham,
"June 26, 1871.

"W. D. Husband, Esq.,

"My Dear Sir,—I lose no time in thanking you for your prompt and courteous acknowledgment of mine of 24th inst.

"I regret that I cannot attach the importance which I generally do to your opinions to the statement that the changes you propose 'can in no way lead to metropolitan or editorial supremacy, as the election of the governing body by the members generally (so vast a proportion of which reside in the provinces) will not be affected.'

"The government of the Association, professedly based on representative principles, has, so far as I am informed, no parallel in any representative assembly or society in the world. The nominally supreme Council has no control over the Association (as a distinguished associate once cogently put it) during a recess of 361 days in the year. Whatever be the theory of our constitution—a most legitimate matter for difference of opinion—the practical effect is scarcely open to question. Take, for instance, the ensuing year, hopefully looked forward to by Medical reformers—who will wield the power of the Association, when its President resides at Plymouth, the President of the Committee at York, the Treasurer at Bath, and the members of the Council be scattered in units over the three kingdoms, while 37, Great Queen-street, or some such central office in the metropolis, will be the head-quarters of the editor, and of his subordinate officer, who will combine the functions of business manager of the journal, and of Secretary of the Association? A fact not to be forgotten is, that no provision is made in the laws, or in the notices of motion, either for a public audit or for substantial security being given by paid servants, who may have the handling of the whole income of the Association.

"I am happy to think that this discussion is not with yourself personally, for whom I have always entertained most sincere respect. You have confirmed my anticipations, that the notices of motion of the most important alterations of laws have been given at the request of the Committee of Council, and I therefore hold myself at liberty to promote or take part in such measures as may be deemed necessary for bringing to an issue, on public grounds, questions which, however solved, cannot fail to exercise an important influence on the future of the Association, and on the best interests of the Medical Profession.

"According to previous intimation, I forward copies of our correspondence to all the Medical journals.

"I remain, very faithfully yours,
"Sampson Gamgee."

BEAUPERTHUY'S TREATMENT OF LEPROSY.

Letter from Dr. Dalton.

[To the Editor of the Medical Times and Gazette.]

Sir,—As the subject of leprosy is occupying some Professional attention in England at present, it may possibly interest some of your readers to know that Dr. Beauperthuy, the discoverer of a new mode of treatment, which has been attended with considerable success, is at present engaged by the government of this colony in carrying out his valuable researches and mode of cure of that hitherto formidable and intractable disease. He is likely to remain here until the middle of next year, and the results of his specific treatment of the patients intrusted to his care will probably be embodied in a report, which, no doubt, will be published. In the meantime it may be as well to describe how he has set about his work.

Before his arrival no serious attempts had been made by the local Medical Practitioners to combat a disease which was generally considered incurable. Here, as elsewhere throughout the West Indies, this loathsome malady was very prevalent, and evidently on the increase.

A certain number of the worst cases were to be found in an asylum about twenty miles from this city, under the charge of a resident superintendent, a visiting Surgeon, and a visiting commissioner. There were usually about 230 inmates, of both sexes and of a great variety of races. Many more lepers, however, were and are at large, and scattered through the colony

Dr. Beauperthuy arrived here on January 6 this year, and on January 12 I accompanied him (as visiting commissioner) to the colonial Leper Asiyum to inspect the cases, and to make a selection to be subjected to his treatment. On examination he candidly pronounced the greater part of them hopelessly incurable, but made a careful selection of sixteen cases, naturally the mildest in character, and more likely to prove amenable to his mode of cure. Some of the cases were severe enough to test the efficacy of his mode of treatment. Of the number chosen, eight were East Indian coolies, and the other eight either negroes or mulattos, except one, a Mustee youth. Notes and photographs were taken of these cases before they were removed from the Asylum.

A wooded island, about three-quarters of a mile long and half a mile broad, was partially cleared and fitted with wooden huts for their reception. This island is about forty miles up the river Essequibo, a magnificent stream nearly as large as the river Orinoco, and about thirty miles from Georgetown. The land is low, but has been partially drained, and it is considered healthy. The patients reached this secluded spot about January 18, and Dr. Beauperthuy, having installed himself in a modest wooden cottage, situated on the bank of the river opposite, and having made ready for their reception, commenced his treatment soon afterwards.

On May 2 of this year I visited Know Island—the name of the place—in company with Dr. Beauperthuy, who wished me to see the cases. On landing I found the land partially cleared of trees, and about sixteen huts, together with a building for the dispenser, a kitchen, and other wooden edifices in process of building. The huts were small, but well adapted for the purpose. Each hut contained two patients, who each had a mosquito netting over his small bed. The floor was of earth, well rammed, and of course dry. There were, in addition to the single chamber, a sort of antechamber open on the leeward side, and a kind of attic above the apartment, which might serve for a sleeping-place, and was reached by a ladder. The patients had chairs and tables, with books, papers, and games to amuse themselves with, whilst around the huts were plots of ground laid out with provisions and flowers, and occasionally a few fowls were noticed. The Doctor visits his patients daily, and makes minute notes and frequent official reports to the government. The lepers are also visited three times a week by the resident Surgeon of the penal settlement a few miles off, up the river Mazarouni, a tributary of the river Essequibo. He has nothing to do with the treatment of the cases, but merely watches the result, and in company with Dr. Beauperthuy makes his notes and remarks. At the time of my visit there were about twenty-three patients under gratuitous treatment, the expenses being paid by the colony; whilst a few private patients were lodged in a small building close to the Doctor's house.

As I had seen most of the patients before they were subjected to the specific treatment, I was in a position to judge if the results so far were satisfactory. In justice to Dr. Beauperthuy I must admit that, after about three months of his treatment, the change for the better in most of the patients was very striking. Tubercles had in some instances been considerably reduced, if not obliterated, thickening of the skin abated, and blotches disappeared, even in that short time.

It is difficult to describe, but the general aspect of the face and body in particular instances indicated a marked general improvement. The altered and disfigured features were rendered more human-looking. In some cases of ulcerations about the feet of the coolies, there had been little or no improvement. With scarcely an exception the patients were profoundly impressed with the marked benefits of the treatment, and evinced the most unbounded confidence in the Doctor. Indeed, their eagerness and anxiety to undergo the full penalty of the treatment were remarkable. Several of them exhibited with pride long blistered and abraded surfaces where tubercles had once deformed the skin.

This is not the time to enter upon the *rationale* of the treatment, or to attempt to decide the result even in these cases. Dr. Beauperthuy considers himself only in the light of a pioneer in the march of improvement in the treatment of leprosy. He is yet dissatisfied with the means at his command, and is still engaged in more experimental researches on the subject, which he hopes soon to develope. Meanwhile, he has been of use in his generation, and has grappled with a disease which ancients and moderns have equally considered incurable.

I am, &c.,

H. G. Dalton, M.D., F.R.C.S. Eng., F.L.S., etc.

Georgetown, Demerara, June 5.

REPORTS OF SOCIETIES.

OBSTETRICAL SOCIETY OF LONDON.

Wednesday, June 7.

Dr. Braxton Hicks, F.R.S., President, in the Chair.

The following gentlemen were elected Fellows of the Society:—F. H. Anderson, M.R.C.S. (Hammersmith); Frank Argles, L.R.C.P. (Wanstead); Alfred Armstrong, M.D. (Lower Norwood); Arthur Beadles, M.R.C.S. (Forest Hill); F. R. Hogg, M.D. (Woolwich); and William McBeath, M.D. (Atherstone).

Mr. C. R. Carter exhibited a Large Uterine Fibroid Tumour, removed after death from a patient who was known to have suffered from it for forty years. It was eight inches long and six inches broad, and had undergone degeneration and calcification, whilst in its interior were contained about three pints of pus.

Dr. Routh said the chief interest of the case was the formation of pus in the fibroid, as purulent disintegration of such a growth was not common.

Mr. Scott exhibited two Ovarian Tumours, removed from a patient aged 35. The one, a multilocular cyst of the right ovary, the other a fibroid tumour of the left ovary. The operation had been performed on May 3, and the patient was progressing favourably. The chief points of interest in the case were—the slight adhesions met with, notwithstanding the history of preceding attacks of peritonitis; the co-existence of an ovarian tumour with two pregnancies, both terminating safely; the apparently rapid growth of the fibroid tumour of the left ovary; and the twisted state in which the pedicle of the right ovary was found.

Dr. Phillips expressed a doubt from the appearance of the specimen whether the fibroid growth was strictly ovarian in its origin; and

Mr. Spencer Wells believed it to be an outgrowth from the uterus. (Referred to a committee.)

Dr. Greenhalgh exhibited his new Metrometer Sound for measuring any part of the cavity and neck of the uterus from side to side, and from back to front, as well as in its long axis. In shape, length, and termination it closely resembles the ordinary Simpson's sound, and consists of a small canula, through the centre of which runs a movable shaft. To the upper extremity of this shaft are attached two watch-springs, and to its lower extremity a graduated scale fixed by a screw. The instrument being introduced the required distance into the uterus, the screw is then loosened, which permits the escape and divergence of the watch-springs, and these, on being arrested by the uterine walls, register on the graduated shaft the amount of divergence.

Dr. Meadows read a paper on Pelvic Hæmatocele, with special reference to its diagnosis and treatment. The author expressed his conviction that this affection, though not common, is not so rare as is generally supposed; nor in many cases is the diagnosis a matter of much difficulty, though in some, and especially in the less severe forms, or when seen long after the attack, the diagnosis is extremely puzzling. Allusion was made to a paper by Dr. Barnes on Intra-peritoneal Hæmorrhage, published in the last number of the St. Thomas's Reports, the author criticising some of the cases in regard to their diagnosis, and expressing some doubt as to their accuracy in this respect, judged solely by the details given. An examination of these cases, in their results, when compared with others of the same kind, collected from the works of MM. Bernutz and Goupil, showed a very startling contrast; for of forty cases of the former, three only died, whereas in sixty-two cases of the latter only eighteen recovered. In regard to diagnosis, the author remarked that the difficulties were greatly lessened in cases where the attendant happened to know the exact condition of the parts before the occurrence of the attack, because, as swelling necessarily results from the hæmorrhage, its absence before the attack, and its immediate discovery afterwards, together with the attendant symptoms, pointed at once to the nature of the case, inasmuch as no other swelling occurs thus suddenly. The differential diagnosis of uterine displacements, of tumours, either of the uterus or ovaries, becoming suddenly impacted in one or other *cul de sac*, of pelvic cellulitis, and of pelvic peritonitis, was dwelt upon at some length, and their distinctive features pointed out. The author recommended the division of the cases into two groups; the first to include all those which originated in the performance

of the functions of menstruation or parturition, and the second those of distinctly organic origin, not connected directly with the uterine functions. He advocated more frequent resort to puncture, grounding his recommendation on the fact that of Bernutz' eighteen cases which recovered, nine were operated upon, seven ruptured spontaneously, and only two were left alone; while out of twelve fatal cases, two only were tapped, one ruptured spontaneously, and nine were left alone. The author related two cases in which he had tapped successfully, and the paper ended with some directions as to the conditions, mode, and time of operating.

Dr. Barnes said that Dr. Meadows doubted his cases because they were so many; but was his experience so exceptional? Olshausen said that in 1867 Scanzoni had only seen two cases, but that he ought to have seen 200. Olshausen himself had seen 34 cases of hæmatocele in 1145 gynæcological cases. Seyfert had seen 66 cases out of 1272. In fact, it was only necessary to look for these cases with intelligence in order to find them. He had expressly stated in his paper that some of the cases were no doubt open to criticism as to diagnosis. In some this had been drawn from the history and general symptoms, and was not established by local exploration. He would, however, premise that every one had been seen either in consultation or Hospital practice, and that there was a presumption that the symptoms were severe enough to cause anxiety. The facility of diagnosis depended upon the extent of one's experience. Hæmatocele was most liable to be confounded with pelvic peritonitis. Now, he had been familiar with pelvic peritonitis for thirty years. The history and physical signs of pelvic peritonitis from other causes than effusion of blood into the peritoneum differed materially. Dr. Meadows was astonished that eight of his cases attended abortion. The possibility of this occurrence should not be questioned because others had not yet noticed a similar connexion. Again, Dr. Meadows doubted because so many of his cases recovered. It would have been easy to produce a more convincing mortality if he (Dr. Barnes) had punctured the cysts and given purgatives. In reference to the division of the cases, Dr. Meadows failed to see that his design was simply to illustrate the matter from a clinical point of view, not to classify. He could not accept any responsibility for the freaks of statisticians. Lastly came the question of treatment. He considered it most important not to disturb parts recently the seat of severe injury. Rest was necessary to allow of the conservative process of encapsulation. Puncture was only necessary when urgent symptoms, as of toxæmia, arose. Dr. Meadows, by dealing with the statistics of Bernutz' cases, had come to a conclusion strictly the opposite of that which Bernutz himself had formed. He (Dr. Barnes) very much preferred the deliberate judgment of Bernutz upon his own cases, arrived at by a process of clinical reasoning and comparison, to Dr. Meadows' statistical deduction.

Dr. Snow Beck said his experience led to the conclusion that retro-uterine hæmatocele was a comparatively rare affection. He did not think that rupture of the gravid uterus, or extra-uterine gestation cysts, or ovarian cysts with large effusion of blood into the peritoneum ought to be included under this term, which was properly restricted to effusions of blood encysted in the pelvic peritoneum, or extravasated into the loose cellular tissue in the pelvis. With these restrictions Dr. Barnes's cases were reduced from fifty-three to three cases of hæmatocele from rupture of diseased ovaries, and eight cases attending abortion, some of which were of a very doubtful nature. When blood became encysted in the pelvic peritoneum or neighbouring cellular tissue, it was desirable to remove it if possible, and to prevent the cyst from refilling. The danger of allowing it to remain was shown by the cyst sometimes bursting into the peritoneum, or the woman being worn out by constant suffering. However, when it formed an inert mass, causing little inconvenience except from its presence, it would not be desirable to interfere with it.

Dr. Madge, in reply to Dr. Beck, said that, in the case published by him, death did not take place from rupture of the cyst into the peritoneal cavity. There were repeated hæmorrhages from the cyst, the blood passing per rectum, and some of the contents of the hæmatocele seemed to undergo changes of an unhealthy character, which induced a pyæmic condition, the patient dying of exhaustion. He was the first to bring the subject before the Society, his paper on the subject having been read about ten years ago.

Dr. Phillips believed that small effusions of blood into the retro-uterine pouch were of common occurrence. Instances of large effusion extending above the pelvic brim he considered comparatively rare. Excluding those severe cases where the effused blood resulted from some grave lesion, as the rupture of an extra-uterine fœtal cyst, or a gravid uterus, he thought the mortality was not nearly so great as Dr. Meadows implied. There existed but few specimens of retro-uterine hæmatocele in any of the museums. He considered that the peritoneal symptoms described in some monographs on the subject were exaggerated. They were not necessarily very severe, as pure blood did not set up much peritonitis. He stated that in many cases the retro-uterine pouch descended much lower than represented in diagrams, and that the depth in the pelvis to which the effusion extended should not be used as an argument against its intra-peritoneal seat. He asked for some indications to distinguish between a small inflamed ovarian cyst, surrounded by inflammatory adhesions, and a blood effusion. The physical signs in many cases afforded but little assistance, and the preceding history might mislead, as urgent symptoms occasionally supervened suddenly from impaction of an ovarian tumour in the pelvis. Generally, however, an ovarian cyst displaced the uterus more to the opposite side of the pelvis; a hæmatocele pushed it forwards. Probably no one would doubt the advisability of emptying the cyst by puncture if pyæmic symptoms threatened from absorption of putrid contents (which he believed rarely happened if the patients were left alone); but the cases in which tapping was applicable seemed to him to be few. It was certainly not safe to tap before the effusion became encysted, while, at a later period, the serous part had in most cases already undergone absorption, and it was almost useless to puncture the remaining mass. He had seen cases where the blood extended as high as, or above, the umbilicus do perfectly well without Surgical interference.

Dr. Gervis said it appeared to him that some of Dr. Beck's remarks were founded on a misapprehension of Dr. Barnes's views. Dr. Barnes never asserted that certain symptoms referred to by Dr. Beck were the symptoms of peri-uterine hæmatocele, but that in the cases quoted from his paper there was pelvi-peritonitis plus more or less intra-peritoneal effusion of blood, standing to one another in the relation of cause and effect. Again, Dr. Beck said, if purulent accumulation be present, what will rest do for the patient? whereas Dr. Barnes distinctly stated that the indication for puncture was the presence of irritative fever, pointing to the occurrence of local suppuration. On the general question of the comparative frequency of slight effusions of blood into the peritoneum, he (Dr. Gervis) entirely coincided in the opinions expressed by Dr. Barnes and Dr. Phillips.

Dr. Graily Hewitt stated that during the last five years he had observed in University College Hospital altogether, he believed, twelve or fifteen cases. They had all recovered, and in no case had puncture been resorted to.

Dr. Tilt remarked that if the German pathologists had found hæmatocele common, the French writers considered it to be very rare. Since he first drew the attention of the British pathologist to hæmatocele in 1853, Dr. Tilt had only met with twelve cases. Pelvi-peritonitis was often mistaken for hæmatocele. The majority of cases required no surgical treatment, but when the collection of blood was considerable, and the tension of the sac very great, he had repeatedly punctured it through the vagina, and allowed the blood to drain away of its own accord, thereby greatly relieving the patient's suffering and shortening the duration of the disease.

Dr. Greenhalgh agreed with Dr Meadows, that pelvic hæmatocele was by no means so frequent nor so harmless an affection as Dr. Barnes would lead the Profession to believe. On a rough estimate he (Dr. Greenhalgh) did not think that he had seen more than twenty-five indubitable cases of that affection, notwithstanding he had had extensive opportunities of meeting with such cases. He observed that many of the cases of pelvic hæmatocele which had fallen under his notice were of a far graver character than those recorded by Dr. Barnes; three cases having died speedily after the attack, and several others requiring much more treatment than the rest-and-do-nothing system advocated by Dr. Barnes. In three cases puncture and evacuation of the effused blood had been necessitated by the severity of the constitutional symptoms, followed by satisfactory results, and he (Dr. Greenhalgh) had little doubt that, had puncture been had recourse to in some of the other cases, the patients would have made a far more rapid and satisfactory recovery. He inferred that Dr. Meadows attached due importance to rest.

Mr. Spencer Wells said his personal experience of pelvic hæmatocele was chiefly as a sequel of ovariotomy. He believed the less severe forms, where only small quantities of blood were effused and afterwards absorbed, were very common. When

the tied or cauterised pedicle was in the pelvis, a good deal of trouble was sometimes observed at each menstrual period for some months, with all the signs of hæmatocele. In the slighter cases he considered rest and opiates constituted the best treatment. But there were other cases where a high temperature, rapid pulse, loss of flesh, dry tongue and skin, with a painful distended abdomen, and scanty concentrated urine, showed that the patients were being poisoned by absorption, and here not only puncture but drainage was necessary to save life. Puncture alone might only give temporary relief, or do harm by hastening decomposition of blood or pus; but when a canula or drainage-tube maintained a free escape for fluid and gas, cases apparently hopeless did well.

The PRESIDENT stated that his experience coincided with those observers who considered slight cases of hæmatocele as of common occurrence.

Dr. MEADOWS said that he had referred to Dr. Barnes's paper, on the ground that, if unchallenged, these cases might hereafter be used for statistical purposes in a way which their real importance did not warrant. Dr. Meadows agreed with the speakers who had preceded him as to the comparative rarity of hæmatocele. He entirely concurred in the value of rest in the treatment of these cases, but thought that the facts which he had brought forward in his paper made it necessary that we should review our practice in this respect, at least in regard to those cases where the quantity of effused blood was more or less considerable. The frequency of spontaneous rupture, either by the vagina or rectum, and the escape of the effused blood, seemed to be nature's method of pointing out the treatment we ought to adopt. He found, moreover, that the period of convalescence was greatly shortened by the tapping or rupture.

OBITUARY.

LIONEL JOHN BEALE, M.R.C.S.

WE have this week to record the death of Lionel John Beale, M.R.C.S., a late Member of the Royal Society of Literature, the Ethnological Society, the Zoological and the Royal Botanical Society, and Medical Officer of Health to St. Martin-in-the-Fields since the establishment of that function in 1856. Born in October, 1796, at Falmouth, Cornwall, he was taken to Jamaica, where his father held an appointment in the dock-yard. At the age of 6 he was sent to England, and never again saw his father, who died before he was 40 years of age. Thrown about in the world at various schools—where, as he used to say, he was badly taught and worse fed—he chose the Medical Profession, and in due time became a pupil of Anthony White, Surgeon to the Westminster Hospital, with whom he worked and from whose instruction he acquired the sound judgment he was conspicuous for through life. Medical students in those days picked up knowledge how they could, and attended what lectures they pleased. At Mr. Carpue's he was for some time the only student. In 1815 he passed the College of Surgeons, and in the same year went to Brussels and Paris as Hospital mate with several students (of whom he was the only one who could speak a word of French) to attend the wounded after Waterloo, and the following year brought home several sick soldiers. Soon afterwards he purchased a practice in Burford, Gloucestershire, but, disliking country practice, settled in Bedford-street, Covent-garden. His tastes were literary, and he never desired extensive practice. He soon afterwards removed to Long-acre, where he remained upwards of thirty-five years, and on Friday, June 23, died of debility and failure of brain power, at the age of 74, after an illness of only four days.

In early life he was the friend and executor of Mr. Belsham, the eminent Unitarian minister, whose character and teaching he greatly valued, though he did not belong to that religious sect. The simplicity of his life and the tenderness of his nature made him rather the friend of the poor than of the rich, and amongst the poor he spent the greater part of his energies. He leaves one son, Lionel Smith Beale, M.B., F.R.S., Physician to King's College Hospital, and three daughters.

His published works are—"On Spinal Diseases," published about 1830; "The Laws of Health in relation to Mind and Body," 1851; "Health and Longevity," 1854; "On Personal and Domestic Hygiene," 1855.

Mr. Beale was a man of most pleasing and refined manners; of great acquirements in the subjects of art, language, and ethnology; and of entire liberality and breadth, without a particle of vulgar scepticism. In his Medical works he preferred common sense and experience to the newest refinements of science as the basis of practice. He made the most of a rational hygiene, and was not fond of too energetic medication. We doubt not but that, had he in early life been more systematically educated in the science of the day, and compelled to keep in the front ranks of the Profession, he would have made himself the position which he had the next gratification of seeing filled by the inheritor of his name.

DR. ROBERT DAUN, DEPUTY INSPECTOR OF HOSPITALS.

Dr. Robert Daun died on the 14th ult. at 6, Picardy-place, Edinburgh. He was born at Insch, Aberdeenshire, on April 16, 1785, and was the eldest son of the clergyman of that parish. He received his early education at the Grammar School of Elgin, and pursued his Medical studies at the University of Aberdeen. He passed his examination in London, and entered the Army, as Assistant-Surgeon, at the age of 19, almost his first service being in India, when he was attached to the 22nd Light Dragoons, and afterwards to the 59th Foot. On his return to England, in 1814, he exchanged into the Scots Greys, and, with them, was present at the battle of Waterloo, and afterwards with the army of occupation in France. He went to India a second time about 1820, and served there for some years, returning finally to Europe in 1825. His great experience in the treatment of cholera caused his selection as Government Inspector, in which capacity he was sent to Sunderland and the other infected districts on the occurrence of the first great epidemic of cholera in 1831 and 1832, for his services on which occasion he received the thanks of Government, and sundry other honorary distinctions. He was frequently called into consultation on cases apparently hopeless, and on two instances, at least, succeeded in restoring the sufferer by the use of saline injections. He then retired into private life, residing successively in London, St. Andrews, Aberdeen, and, latterly, in Edinburgh. In private life his conduct and character were of the most amiable type. His reasoning powers were of a high order, his favourite pursuits being the higher mathematics and theology. He was, we believe, at the time of his death, senior Member of the Royal College of Physicians in London, Fellow of the Royal Society of Edinburgh, and a member of various other learned societies.

DR. HILL, OF PORTOBELLO.

We regret to record the death of Dr. William Hill, who died at his residence, 1, Union-place, Portobello, on the 10th ultimo. The deceased, who was born on November 1, 1802, in Loanhead, was the son of Mr. David Hill, supervisor of inland revenue. He studied at the University of Edinburgh, and having obtained his qualification from the College of Surgeons, went to Portobello when he was 23 years of age, and commenced practice as a Surgeon. The only other Medical Practitioners there then were Drs. Kerr and Thomson; the death of the former a few years afterwards and the removal of the latter left the whole field open to Dr. Hill. From his genial disposition, obliging manner, and sympathetic feeling for the sufferings of even the poorest of his patients, Dr. Hill very soon won the confidence of the community. On September 30, 1842, Dr. Hill was presented by his friends in Portobello and its vicinity with a valuable gold watch and a purse of forty-five sovereigns, the whole of the money having been collected in penny subscriptions. In 1826 he was appointed Medical Officer to the parochial board of the parish. About fifteen months ago he placed his resignation in the hands of the board, which was accepted with regret, and at that meeting he was granted a retiring allowance of £50 a year during his life. Several other valuable presents were made to him, evincing the high respect in which he was held amongst the townsmen. Dr. Hill was never married. It has been determined to perpetuate the memory of Dr. Hill in a suitable and permanent form, as a mark of the high esteem in which he was held by all classes of the inhabitants of Portobello. A meeting was held in the Town-hall buildings on Monday last for the purpose of considering this.

DR. ALLAN E. MAHOOD.

Allen E. Mahood, M.D. and Surgeon, Glasgow, and L.S.A. Ireland, commenced practice in Dublin in 1832, a year memorable on account of the ravages of cholera in that city. During his unremitting attendance on the sufferers, as Medical Officer of Health for St. Audeon's parish, he twice contracted that disease, and nearly lost his life. Acting on the advice of his friend and master, the late Dr. Graves, he removed to Kingstown in 1844, and established himself as a general

Practitioner. His thorough Medical education and promptitude of action soon won for him the love and esteem of a large circle of patients, which he retained to the period of his death. Although living in the simplest manner, his health gradually became impaired during the last four years from periodical attacks of gout, which for six months had become almost unremitting, and confined him entirely to the house. He died at the age of 66 years, at his residence in Kingstown, on June 24, of gouty dyspepsia, lamented not only by his family and immediate relations, but also by a large circle of friends.

LEGAL INTELLIGENCE.

PUBLIC HEALTH ACT—LOCAL GOVERNMENT ACT—JURISDICTION OF MAGISTRATES—REMEDIES OF PERSONS AGGRIEVED.

THE following is a summary of a case decided very recently by the Court of Queen's Bench upon appeal from a decision of the Ipswich bench of magistrates—Cook (appellant) *v.* the Ipswich Local Board of Health (respondents) :—

The Section 69 of the Public Health Act, 1848, after empowering the local board to give notice to the owners or occupiers of premises in streets not sewered, etc., to their satisfaction, requiring them to sewer, etc., the same, and, on the default of the owners and occupiers, to execute the works themselves, proceeds to enact as follows :—"And the expenses incurred by them in so doing shall be paid by the owners in default, according to the frontage of their respective premises, and in such proportion as shall be settled by the surveyor, or, in case of dispute, as shall be settled by arbitration (having regard to all the circumstances of the case) in the manner provided by this Act, and such expenses may be recovered from the last-mentioned owner in a summary manner."

Section 64 of the Local Government Act, 1858, provides that "all questions referable to arbitration under the Public Health Act, 1848, may, when the amount in dispute is less than £20, be determined by two justices in a summary manner." Held, that the justices are not empowered to inquire into the question of the actual expenditure by the board, either as arbitrators under the latter Act or as the justices to enforce the payment; that their duty in this respect is simply ministerial, and not judicial, the remedy of a person aggrieved being by addressing a memorial to the Secretary of State, as provided by 11 and 12 Vict., c. 63, s. 120, and 21 and 22 Vict., c. 98, s. 65.

The justices cannot take upon themselves the double capacity of arbitrators to settle the disputed proportion and of justices to make the order for enforcing payment. The 24 and 25 Vict., c. 61, s. 16, requiring the deposit of the plans, etc., in the office of the local board, is directory merely, and the remedy of any person aggrieved by the non-compliance is by addressing a memorial to the Secretary of State.

However dry and uninteresting such legal details may be to the general reader, it is very desirable that both the local commissioners, the magistrates, and the owners of property should understand their respective duties and liabilities before rushing headlong into law, alike disastrous to the public weal and to private interests. Costs must be paid by one party or the other, or by both.

AN UNQUALIFIED PRACTITIONER.

On Tuesday evening Dr. Hardwicke concluded an adjourned inquest at the "College Arms," Camden Town, on the body of Theodore Gordon Rowe, aged 17, a clerk to Mr. Herbert Clarke, the coal merchant.

It appears that the mother of the deceased, soon after he was taken ill, went to Mr. Halket, herbalist, of High-street, Camden-town, and he gave her a draught, the tincture of "podophyllum," for the deceased, which he took. The mother also paid Mr. Halket half-a-crown for a visit. After taking more medicine deceased vomited blood, and passed blood in his urine, and died about ten minutes after.

Mr. Halket admitted that he was not a qualified Medical Practitioner, but said he vended vegetable medicines. He sent to the deceased two mixtures; the first was a fever medicine, and the second a purgative containing two drachms of podophyllum, and two drachms of tincture of senna, made up in an eight-ounce bottle, one-eighth of a drachm being taken as a dose. He had known of much larger quantities of podophyllum being taken. Mr. Halket did not improve his position by further stating, in reply to the jury, that he was a chemist, and a member of the Medical Reform Society. He had often visited patients who were his customers, and in this instance did so at the request of deceased's mother.

Mr. William Turnbull, M.R.C.S., 257, Hampstead-road, was called in after the death by Mr. Halket to see the body, and was of opinion that the deceased had died from malignant scarlet or typhus fever. A post-mortem examination confirmed that opinion. He certainly should not have given such a medicine as "podophyllum," and thonght if a qualified Practitioner had been called in deceased might have survived. Deceased might probably have died from the effects of the disease, but he considered the mixture containing the podophyllum accelerated the death.

The following verdict was returned :—"That the death of the deceased was caused by blood-poisoning from scarlet or typhus fever, and that such death was accelerated by unskilful treatment." The jury also censured Mr. Halket for putting in his shop-window a notice that he might be consulted.

MEDICAL NEWS.

UNIVERSITY OF DUBLIN.—At the Summer Commencements, held on Wednesday, June 28, in the Examination Hall of Trinity College, the following Licences and Degrees in Medicine and Surgery were conferred by the Right Hon. Sir Joseph Napier, Bart., LL.D., Vice-Chancellor of the University :—

Licentiates in Medicine.

Browne, Thomas John. | Purefoy, Richard Dancer.

Licentiate in Surgery.

Purefoy, Richard Dancer.

Bachelors in Medicine.

		Per cent.			Per cent.
1.	O'Connor, Jacob	84	11.	Moorhead, Thos. Hamilton	64
2.	Rogers, John G.	79	12.	Armstrong, James ...	62
3.	Kennedy, David	77	13.	Comyn, Henry	56
4.	Drapes, Thomas	72	14.	Dobson, Andrew F. ...	54
	Molony, Patrick J. ...	72	15.	White, Richard D. ...	52
6.	Worthington, Thomas B.	71		Gibson, George	52
	Whittaker, William M....	71		Browne, Thomas J. ...	52
	Quill, Richard	71	18.	Elliott, Christopher ...	50
9.	Tweedy, Henry J. ...	68	19.	Browne, Otway P. ...	49
10.	Blunden, Maurice ...	66	20.	Waugh, John	47

Masters in Surgery.

		Per cent.			Per cent.
1.	Molony, Patrick J. ...	74	6.	Courtenay, Edward M. ...	51
2.	Rogers, John G.	68	7.	Mayberry, Francis G. ...	48
3.	Armstrong, James ...	65½	8.	Waugh, John	44
4.	Quill, Richard Henry ...	63	9.	Browne, Otway Peter ...	42½
5.	Worthington, Thomas B.	61	10.	Comyn, Henry Edward ...	42

Doctors in Medicine.

Collins, Edward Wolfenden. | Tudhunter, John.
Moore, John William. | Tomkins, Arthur Wellesley.
Morgan, John. | Yeo, Gerald Francis.

Previous Examination in Medicine.—The following candidates, having passed in all the subjects, have been recommended as entitled to compete for the Medical Scholarships founded by the Board of Trinity College :—

		Per cent.			Per cent.
1.	Clarke, Andrew	86⅔	5.	Tuthill, Phineas B. ...	50
2.	Pearce, George A. ...	73	6.	McNeill, John P.	47½
3.	Cooper, Charles A. ...	54½	7.	Bluett, George A.... ...	45½
4.	Fleetwood, Thomas F. ...	53			

The Medical Travelling Prize, value £50, has been awarded to Mr. Jacob O'Connor.

At the same time Mr. Charles Lever, the eminent novelist, received the degree of LL.D., *honoris causâ*. Mr. Lever graduated in Medicine in 1831, in which year he had conferred on him the degree of Bachelor in Medicine of the University.

APOTHECARIES' HALL.—The following gentleman passed his Examination in the Science and Practice of Medicine, and received his Certificate to practise, on Thursday, June 22, 1871 :—

Ellis, Edward Thomas Charles, Bexley-heath, Kent.

As Assistants in Compounding and Dispensing Medicines :—

Dunn, Henry, Shipley, near Leeds.
Tomlin, Albert Roberts, Barnsley.
Williams, Jahez Vivian, St. Ives, Cornwall.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

DARCH, Mr. AUGUSTUS.—Dispenser to the Lambeth Dispensary.

DAYSDALE, Dr. C. R.—Physician to the Metropolitan Free Hospital, *vice* James Jones, M.D. Univ. Lond., M.R.C.P. Lond., deceased.

DUDLEY, DR. J. G.—Physician to the Metropolitan Free Hospital, *vice* Dr. W. Lomas, resigned.

LEE, SAMUEL EDWARD, M.R.C.S., etc. (of the West London Hospital).—House-Surgeon and Apothecary to the Leicester Infirmary.

TORRY, Dr. J. COOPER.—Assistant-Physician to the Metropolitan Free Hospital, *vice* Dr. C. R. Drysdale, appointed Physician; also as Physician to the Infirmary for Consumption and Diseases of the Chest, Margaret-street, Cavendish-square, *vice* Dr. James Jones, deceased.

NAVAL AND MILITARY APPOINTMENTS.

John Black Nicoll, M.D., has been promoted to the rank of Surgeon in H.M.'s Fleet, with seniority of May 15, 1871 (confirming a commission given by Vice-Admiral Edward G. Fanshawe, C.B., Commander-in-Chief of H.M.'s Ships and Vessels on the North-American and West-Indian Station, *vice* Martin, deceased).

1ST REGT. OF LIFE GUARDS.—Surgeon Owen William George, M.D., having completed twenty years' full-pay service, to be Surgeon-Major, under the provisions of the Royal Warrant of December 27, 1870.

102ND FOOT.—Staff Assistant-Surgeon Edward Litton Low, M.B., to be Assistant-Surgeon, *vice* William James Tyrrell, who exchanges.

BIRTHS.

COLLINS.—On June 26, at Euston-place, Leamington, the wife of Dr. C. P. Collins of a daughter.

FYFE.—On June 18, at 42, Montpelier-square, the wife of Andrew Fyfe, M.D., of a daughter.

PRICHARD.—On June 22, at Wonastow Court, near Monmouth, the wife of W. G. Prichard, M.D., late of H.E.I.C.S., Madras, of a daughter.

TUKE.—On June 22, at the Manor House, Chiswick, the wife of Harrington Tuke, M.D., of a daughter.

MARRIAGES.

DYER—COLES.—On June 27, at Holy Trinity Church, Weston-super-Mare, Arthur Edwin Dyer, to Jessie Louisa, youngest daughter of the late James Coles, F.R.C.S.

HARDY—WILL.—On June 21, at St. Andrew's Church, Aberdeen, George Simpson Hardy, Esq., Ramsey Hall, Essex, eldest son of James Hardy, Esq., of Jacques Hall, Essex, to Mary Christian, second daughter of James Will, M.D., Aberdeen.

HIRSCH—COLQUHOUN.—On June 27, at Glasgow, Samuel Hirsch, Esq., merchant, Nottingham, to Mary, youngest daughter of Hugh Colquhoun, M.D., The Anchorage, Bothwell.

PARTRIDGE—SMITH.—On June 22, at St. Paul's, Onslow-square, South Kensington, Henry Francis Partridge, to Mary, eldest daughter of Robert Smith, M.R.C.S., of Kensington.

TAIT—STEWART.—On June 28, at All Saints', Wakefield, Lawson Tait, F.R.C.S. Edin. and Eng., of Waterloo-street, Birmingham, to Sybil Anne, eldest surviving daughter of William Stewart, Esq., of York House, Wakefield.

WALKER—HETHERINGTON.—On June 22, at Christ Church, Bootle, George Charles Walker, M.D., Stanley-road, to Louisa Ann, eldest daughter of Walter F. S. Hetherington, Esq., Sandon House, Merton-road, Bootle.

WALLIS—PRITCHETT.—On June 24, at Bromley St. Leonard, Middlesex, Percy, second son of the late William Wallis, to Alice, younger daughter of the late Charles Pritchett, M.R.C.S., etc.

WILSON—POWYS.—On June 22, at St. Paul's Church, Dorking, Surrey, James Arthur Wilson, M.D., of Rose-hill, Dorking, to Eleanor Powys, second daughter of the late Hon. and Rev. Littleton Powys, rector Titchmarsh, Northamptonshire.

DEATHS.

ASBURY, JACOB VALE, M.R.C.S., L.S.A., at his residence, Enfield, on June 21, in his 80th year.

BEALE, LIONEL JOHN, M.R.C.S., at 108, Long-acre, on June 23, aged 74.

DUNOAS, ROBERT, M.D., formerly Assistant-Surgeon in H.M.'s 60th Regt., for many years Physician in the British Hospital at Bahia, and afterwards Physician to the Northern Hospital, Liverpool, at his residence, 14, Gloucester-place, Hyde-park, on June 25, deeply regretted by his numerous friends.

IRVINE, ALASTAIR, eldest son of W. S. Irvine, M.D., at Craigatin, Pitlochry, on June 20, aged 19.

MACEOAN, B. C., M.R.C.S.E., Surgeon *City of Durham* steamer, Inman Line, by drowning at Halifax, Nova Scotia, on May 29.

PECHEY, WILLIAM CRISP, M.D., at West Grove House, Walthamstow, on June 22, aged 32.

SMITH, MARIA, widow of the late J. Smith, M.R.C.S., of Wheatley, Oxon, at Eton, on June 23, aged 77.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

BROADMOOR CRIMINAL LUNATIC ASYLUM.—Assistant Medical Officer; must be legally qualified in Medicine and Surgery. Applications to the Superintendent, on or before July 5.

GUISBOROUGH UNION.—Medical Officer; must be duly qualified according to the General Orders of the Poor-law Board. Applications, with diplomas and testimonials, to William Weatherill, Clerk, on or before July 10.

HOLSWORTHY UNION, DEVON.—Medical Officer. Applications, with testimonials, to be sent to George Braund, Clerk, on or before July 4.

HOSPITAL FOR SICK CHILDREN, 49, GREAT ORMOND-STREET.—Assistant-Physician; candidates must be Fellows or Members of the Royal College of Physicians of London. Applications and testimonials to be sent in on or before Wednesday, July 19.

HUDDERSFIELD INFIRMARY.—Physician; must be a Graduate in Medicine of one of the Universities of the United Kingdom, or a Fellow or Member of one of the Colleges of Physicians, and be duly registered. Applications and testimonials to John Marsden, Esq., Hon. Sec., on or before July 28.

INFIRMARY FOR CONSUMPTION AND DISEASES OF THE CHEST, 26, MARGARET-STREET, CAVENDISH-SQUARE.—Visiting-Physician. Candidates must be Members of the Royal College of Physicians, London. Testimonials to be forwarded on or before July 10.

LEEDS PUBLIC DISPENSARY.—Junior Resident Medical Officer. Candidates must be unmarried, and possess at least one legal qualification. Applications, with testimonials, to be sent to Mr. John Horsfall, 31, Albion-street, Leeds, on or before July 15.

METROPOLITAN FREE HOSPITAL, DEVONSHIRE-SQUARE, CITY.—Assistant-Physician. Candidates must be Members of the Royal College of Physicians of England, or pledged to become such within twelve months if elected. Applications, with testimonials, diplomas, etc., to the Committee, on or before July 10.

MIDDLESEX HOSPITAL MEDICAL COLLEGE.—Lecturer on Physiology. Applications to the Dean on or before July 22.

PARISH OF GREAT YARMOUTH.—Medical Officer for the North District; must be registered under the Medical Act, and possess the qualifications prescribed by the Order of the Poor-law Board. Applications, with testimonials, to John L. Cufaude, Clerk, on or before Monday, July 10.

ST. MARY'S HOSPITAL MEDICAL SCHOOL.—Medical Tutor and Pathologist. Applications and testimonials to be sent to Dr. Cheadle, the Dean of the Medical School, on or before Monday, July 3.

ST. THOMAS'S HOSPITAL.—Resident Assistant Physician. Candidates must be Members of the Royal College of Physicians, or Medical Graduates of a University of the United Kingdom, not less than 25 years of age. Applications to the Treasurer, at the Office, 13, St. Thomas's-street, S.E.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1861.

RESIGNATIONS.

Bridgnorth Union.—Mr. William Thursfield has resigned the Third District; area, 26,591; population, 6501; salary £77 per annum. Also the Workhouse; salary, £20 per annum. Dr. Thursfield has resigned the Fourth District; area, 10,192; population, 4550; salary, £40 per annum.

Hunslet Union.—The Templenewsam District is vacant; salary £15 per annum.

APPOINTMENTS.

Banbury Union.—Frederick W. Fowke, L.R.C.P. Edin., M.R.C.S. Eng., L.S.A., to the Chipping Warden District.

Bicester Union.—William Drinkwater, M.R.C.S. Eng., L.S.A., L.R.C.P. Edin., to the Bicester District and the Workhouse.

Dolgelley Union.—Edward Jones, M.D. St. And., M.R.C.S. Eng., to the Dolgelley District.

Gateshead Union.—Philip Brown, M.D. King's Coll. Aber., L.S.A., to the Ryton District.

MESSRS. H. ADRIAN, H. Durham, G. Martineau, and G. Neison have been elected Fellows of the Chemical Society.

SIR JOHN PAKINGTON will preside at the Social Science Congress at Leeds on October 4.

THE National Hospital for Consumption, Ventnor, has now extended its benefits to women patients.

DR. R. H. LLOYD, of London, has been appointed House-Surgeon to Salford Dispensary, in room of Dr. Veitsch, resigned.

MESSRS. N. M. ROTHSCHILD AND SONS have sent a donation of £200, and P. Hambro, Esq., £25, to the St. George's Hospital.

DR. BARRINGER, Surgeon of St. George's Lodge of Odd Fellows, Clerkenwell, has been presented with an elegant silver inkstand, as a recognition of his meritorious services to the Lodge.

THE attaching naval Medical officers to Netley for a course of instruction prior to their appointment to either ships or Hospitals, has been found to work so satisfactorily that it is likely to be repeated next year.

THE Professor of Chemistry at the Conservatoire des Arts et Metiers, M. Payen, died suddenly of apoplexy, in the 76th year of his age, having been a member of the Academy for twenty-nine years.

MR. JOHN FREELAND, of Nice, has, in addition to former large donations to the scientific and charitable institutions of his native city—Glasgow—just given the following handsome donations:—To the University of Glasgow, £3000; Anderson's University, £5000; Royal Infirmary, £5000.

DR. ALEXANDER CAMPBELL has been appointed Attending Surgeon to the Royal Infirmary, Dundee. He is the son of Mr. Campbell, of Blairton, who was Assistant-Physician at the Aberdeen Royal Infirmary.

THE following have been elected honorary members of Cambridge Philosophical Society:—Sir B. C. Brodie, Dr. W. B. Carpenter, Professor Huxley, Professor Bartholomew Price, Professor Argelander (Bonn), Professor Clebsch (Göttingen), Professor Des Cloiseaux (Paris), Professor Helmholtz (Berlin), Professor Wohler (Göttingen).

THE Select Committee on Baby-farming closed the evidence on Monday, and the next meeting of the Committee will be held on Thursday week, for the consideration of their report.

AT a public meeting at Brighton, held last week, it was unanimously resolved to raise a sum of not less than £1500 to defray expenses for receiving worthily the British Association in 1872.

AN important addition has just been made to the Worcester County and City Lunatic Asylum by the erection of a new ward for the reception of 134 male patients. The entire establishment will now accommodate between 700 and 800 patients.

AT the Westminster Police-court, last week, a woman named Allen was fined £5 for having let a room in which a person had been suffering from the small-pox, without having previously disinfected the apartment. In default the defendant was sent to prison for six weeks.

AT Bridgwater Sessions, on Saturday, Mr. Bovett, a veterinary Surgeon, and Mr. Roberts, a coach-builder, were each fined £5 for contempt of court, in disobeying summonses requiring them to produce their children before a magistrate, when charged with breaches of the Vaccination Act.

THE College of Physical Science at Newcastle advances. Upwards of £22,000 has been subscribed towards the £35,000 which it is estimated will be required. The appointment of the professors was to be made yesterday. The North of England Institute of Mining Engineers have placed their hall at the disposal of the new College. At present it is proposed to open the College on October 7.

WITHIN the last few days, a ship from Shanghai arrived in the docks with 5000 chests of spurious tea. The City Commissioners of Sewers, finding the law powerless to reach those who offer this compound for sale, have laid the matter before the President of the Board of Trade, suggesting that the Customs officials be empowered to seize and destroy all spurious tea on the production of a certificate that it is unfit for human food.

THE Children's Hospital, Brighton, has just been removed from the temporary premises in the Western-road to the new establishment in Dyke-road, Church-hill, formerly known as Church-hill School, and more recently as Dr. Foreman's private asylum, which has been purchased by the governors for its present purpose. Every attention has been paid to rendering the establishment in every way worthy of the benevolent purpose to which it is intended, and to fit it to become, what it worthily may, a country Hospital for Sick Children.

THE report of the directors of the "Metropolitan Association for Improving Dwellings" states that the deaths upon the entire property of the Association had this year been sixty-six, out of an average population of 3934, of which forty-one were children under 10 years of age. The average rate of mortality in the eleven separate buildings of the Association had been under 17 per 1000, while that of the metropolis generally had been 24 per 1000.

IN an action against a chemist and druggist, carrying on business in Devonshire-street, Sheffield, for damages alleged to have been sustained through the administration of improper medicine, it appeared the plaintiff was passing along the street, when the defendant, who was near his shop door, asked him how he was. Plaintiff replied that he was not very well, upon which the defendant recommended him to have a pennyworth of his pills. He took the pills, as advised, but received no benefit from them. Afterwards, the defendant sold him a box of mercurial pills, instructing him to take six per day. This he did for three days, and on the fourth he took the remaining two. He then was taken very ill while at work. He became very weak; his tongue was swollen, his teeth loose, and salivation set in. Mr. Harrison, Surgeon, then attended him for nearly a fortnight, and gave it as his opinion that his illness was the effect of extreme salivation. His Honour said that the law now was, that every person who held himself out as following any skilful employment was bound to bring to the exercise of it a reasonable amount of skill. This applied to Medical men, but not to chemists and druggists, who were simply sellers of drugs. If a man would be so great a fool as to go to a chemist, and take any pills that he might give him, it was his own fault. The matter having been argued at some length, his Honour decided that there was no case for the jury, so that, unless the plaintiff elected to be non-suited, he should direct the jury to find a verdict for the defendant. The plaintiff preferred a verdict for the defendant, in order that he might be in a position to appeal. Verdict accordingly.

BRITISH MEDICAL BENEVOLENT FUND.—At the usual monthly meeting, held on Tuesday last at 11, New Burlington-street, grants to the amount of £90 were made to nine applicants for assistance, and an annuity of £10 was voted to a disabled member of the Profession, to qualify him for a vacant residence at Providence-place. A warm vote of thanks was passed to Dr. Gull, for an additional and liberal donation of £50 to the funds of the charity.

THE HORTON HOSPITAL, BANBURY.—This Hospital, now completed, was commenced in June, 1869, by the late Miss Horton, of Highbury, London, and was intended by her to be a gift to the town of Banbury. Her death, in July, 1869, caused a stoppage of the works for some months. They were, however, resumed in February, 1870, by her great-nephew, Mr. J. H. Horton, and have cost upwards of £6000.

SMALL-POX IN ECCLES.—At the monthly meeting of the Barton, Warton, Monton, and Eccles Local Board, held on Monday, the clerk reported that the guardians of the Barton-on-Irwell Union, having declined to allow the use of their Hospital for the small-pox patients of the district, the board had printed and published directions to the inhabitants for the prevention of the epidemic, also offering a free gift of disinfectants for infected places, and for nuisances generally, and that these had been largely applied, and generally used with good effect. The General Purposes Committee had appointed Mr. E. Roe, the Medical officer, to attend the small-pox cases, and also an assistant inspector to aid in the use of disinfectants. The disease had spread from the street where it first broke out to other parts of the hamlet. There had been sixteen deaths since the last meeting. Young and old had alike fallen victims to it. In three cases the board had felt it necessary to order the interments the day following the death.

SMALL-POX has appeared in one of the poorer districts of Halifax, and several cases of typhoid fever have occurred.

AT the meeting on Monday of the Parochial Sanitary Committee of St. Pancras, attention was called to the practice of patients being discharged from the Small-pox Hospital at Hampstead before they were well, and left to find their way home in any way they could. Omnibuses and cabs refused to take them, and those who had homes to go to had to reach them by dragging themselves along the road while they could scarcely walk. The chairman said when a patient was discharged from a Hospital the responsibilities of the Hospital authorities ceased.

FACTORY INSPECTION.—The physical degeneration of our factory population—including all trades carried on upon a large scale—is one of the questions incidentally raised by Mr. Baker in his last half-yearly report to the Home Office. He is anxious to give us a timely warning that a certain degree of physical deterioration is observable amongst our working-classes. In dealing with what he terms the vexed question of certifying Surgeons, he asks whether there are such evidences of sanitary improvement in workshops as will enable us to say with confidence that every danger to the physique of the workers has been removed. He then instances the absorption of lead, of arsenical gases, or other forms of inhalation of this mineral; of the dangerous nature to life of various dusts, and of the almost equally evil effects of overcrowding in ill-ventilated workshops. In the case of children, also, there is a constant disposition on the part of improvident parents to get them to work before the legal age, by means of a Surgeon's certificate fraudulently obtained. Without going into details, it may be admitted that all these are evils requiring as much as ever active and intelligent supervision for their detection.

MEDICAL EDUCATION AT BERLIN.—Professor Gairdner has recently delivered two lectures at the University of Glasgow, entitled "Recollections of a recent Visit to Berlin, with special reference to the methods pursued in teaching clinical Medicine, etc." In his first lecture Dr. Gairdner gave an account in considerable detail of what he had witnesssd in the clinical wards of Professor Traube, who conducts with great efficiency and success the "*Pro-paedentische*," or elementary clinical instruction at the Charité Hospital. In his second lecture he spoke of the production, as a rule, of Medical Students, "who begin upon a higher platform than ours, trained even in the gymnasia and *Real-schaber* into habits of accurate thought, and informed, not only with several languages, ancient and modern, but with something more than the rudiments of those sciences on which all Medical education has to be grounded. From all I could see around me in Berlin, from the exact and scientific spirit in which every kind of Medical inquiry is pursued, from the

evident care for scientific training in the universities, from the facilities given to researches in the anatomical, physiological, chemical, and pathological departments, under the direction of the various Professors, with the aid of liberal grants for rooms, apparatus, and materials, I came away convinced that Medical science and scientific training, which are, unhappily, in danger of being starved in England and Scotland, thereby cutting away from the practical departments the staff on which they ought to lean, are fostered in the German Universities as the very life and light of the Medical art."

TELEGRAMS from Buenos Ayres, *viâ* Lisbon, state that the epidemic of yellow fever had disappeared.

WE learn by the last West Indian mail that meetings had been held in Chili to discuss the question "Is cattle disease transmissible to the human species through the digestive organs?" The Chilian Medical Faculty had advised carefully abstaining from eating the flesh and drinking the unboiled milk of infected cattle.

A CASE of snake poisoning is recorded in the *Australian Medical Journal*, which terminated fatally, in spite of repeated injections of ammonia into the veins, after the plan of Professor Halford. After the first injection there was some improvement, but the patient soon relapsed. A second injection produced less effect, and a third and fourth none. The treatment was carefully carried out by Drs. W. Scott and Thomas Wyly. The patient, who retained his faculties to the last, and presented the usual symptoms, died about twenty-four hours after being bitten, and twelve after the commencement of the ammonia treatment.

WE are glad to be able to again record the success of Professor Halford's treatment of snake-bite by injection of ammonia into the veins. In Tasmania, a woman, having been bitten six hours previously, was insensible, cold, and apparently sinking. Dr. Appleyard injected thirty drops of liq. ammoniæ, B.P., sp. gr. 959, into a vein of the arm. The effect was magical—she roused up directly, and very soon afterwards was perfectly recovered. Again, a man was bitten the other day at Schnapper Point, and when the Doctor arrived, one hour and a half after the bite, the man was perfectly insensible, the limbs paralysed, the pupils of the eyes dilated, the countenance dusky, and the skin covered with a profuse clammy perspiration. Within twenty seconds of Dr. Dimock injecting the ammonia into a vein of the arm, the man jumped suddenly up, as if electrified, and stared about him; his pupils began to act, and his skin to get warm, and in two hours he was removed home. Dr. Dimock has since expressed himself as follows:—"I have no hesitation in saying that the preservation of this man's life was entirely owing to the ammoniacal injection."

THE TRANSLATION OF THE STRASBURG UNIVERSITY.—The project of translating this University to Lyons, which is so anxiously desired by the Medical Profession of that city, is likely to be strongly opposed in the Chambers. A Bill has been brought in for conferring this boon on Nancy, which has already an imperfectly constituted university body; for it is argued that it would be an act of great injustice to remove such a body from the eastern portion of France, where it is so much wanted. At Nancy the University will be able to perform the same useful function which Strasburg executed so well, of acting as a bond of union between French science and German science, "so remarkable during the last thirty years for its initiative spirit, its progress, and its discoveries." It will there stand face to face with the celebrated Heidelberg, and the new German University at Strasburg, while it will furnish a living source whence the youth of Alsace and Lorraine, of Metz, Strasburg, Colmar, and Mulhouse may derive renewed inspirations of love for its French fatherland.

A PHYSICIAN, passing by a stonemason's, called out to him, "Good morning, Mr. Wilson. Hard at work, I see. You finish your gravestones as far as 'In memory of,' and then you wait—I suppose, to see who wants a monument next." "Why, yes," replied the mason, resting for a moment on his mallet, "unless somebody's ill, and you are doctoring him, and then I keep right on."

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

J. W. will oblige by forwarding the information he is possessed of.

R. T. should make his request to the Secretary of the College.

Dr. P. S., Bath.—The printer would be greatly obliged if you would write on paper of uniform size, and on *one* side only.

A Subscriber for Twenty-nine Years.—It is matter of arrangement, but usually the costs are paid equally by the parties to the covenant.

An Old Pupil of Dr. Ryan's.—It is true that Dr. Ryan published a "Manual of Midwifery," which possessed considerable merit. The other work referred to was not written by him.

Mr. Jones.—The result of the Arts examination at the Whittington Club cannot be known for some weeks.

CHLORIDE OF AMMONIUM IN PNEUMONIA.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In reply to the letter of "Tenax" in this day's *Medical Times and Gazette*, I may state that I have used chloride of ammonium with success in a large number of cases of pneumonia, in which, from great depression of the vital forces or for other reasons, the ordinary active practice in vogue a quarter of a century ago seemed inexpedient.

A reference to my mode of using it will be found in the chapter on "pneumonia" in my "Practical Treatise on the Diseases of Advanced Life," published in 1848. I am, &c. GEORGE E. DAY, M.D.

Andersey, June 24.

An Indian Surgeon, Cheltenham.—You cannot be allowed to vote at the election on Thursday next, not having been *admitted* a Fellow. The dinner takes place the same day, to which you will be admissible. Mr. H. D. Carden, of Worcester, will preside. Write at once to Mr. T. Carr Jackson, the Honorary Secretary, 3, Weymouth-street, W.

A Provincial Fellow.—At the last meeting of Fellows for election into the Council, 234 voted, about seventy less than the previous year; on that occasion Mr Spencer Wells had eighty votes recorded in his favour, with nine plumpers. The proceedings commence at two o'clock To vote you should attend early, with your friend, who will be allowed to vote, notwithstanding he has not received any notice from the College, the fault resting with himself for not furnishing the Secretary with his address.

CONTRIBUTIONS TO MEDICAL LITERARY HISTORY.

(From the Brit. and For. Med. Chir. Review.)

Διαβήτης, *a siphon*: hence the disease *diabetes*, because "the fluid does not remain in the body, but uses the man's body as [a *siphon*] whereby to leave it."(a) The disease received various other names, all more or less referring to its most prominent symptoms, as far as they had been observed by the old Physicians—*e.g.*, from the excessive thirst of the patient it was called διψακος,(b) and from the great flow of urine ὑδερος (or ὑδρωψ) εἰς ἀμιδα, *urinal dropsy*, and διαρροια εἰς οὐρα, *urine diarrhœa*.(c) The word was adopted by the Arabic Physicians, and written *diábitis*.(d) The disease was probably rare in old times, for it is not noticed at all in the Hippocratic collection, and Galen says that he had only met with two cases in his own practice.(e) It is not therefore remarkable that its special peculiarity—viz., the saccharine quality of the urine—should have escaped detection (at least in Europe) until the time of Willis, who says that, in the seventeenth century, when there was much drinking of undiluted wine (*vinum meracius*), cases of diabetes were of very frequent occurrence.(f) He then goes on to mention (as if he were the first, or almost the first, to make the observation)(g) that the urine of diabetic patients had a wonderfully sweet taste, as if imbued with honey or sugar. This fact has never since been lost sight of; and it was no doubt in consequence of its having been first prominently brought before the public by Willis that this species of diabetes was at first called "diabetes Anglicus." Probably, however, it is not generally known that among the Hindus, several hundred years before Willis's time, it had been distinctly mentioned (and not at all as if there were anything new in the statement) that the urine occasionally assumed a saccharine character, and the serious nature of the disease in which this occurs had also been pointed out. The words of Susruta (who cannot have lived later than the ninth or tenth century of our era, and who probably lived in the fifth or sixth(h), are as follows:—"Mellita urina laborantem quem medicus indicat, ille etiam incurabilis dictus est. . . . . Omnes urinales affectiones tempore incurabiles fiunt; ad mellitum urinæ statum perveniunt, et tunc insanabiles fiunt."(i) This passage is, of course, very fragmentary and incomplete, but it is worthy of being brought forward (almost for the first time), and perhaps of being noticed in all future historical accounts of the disease.

(a) Aretæus, "Caus. Morb. Chron.," ii., 2, p. 97, l. 7, ed. Adams. In the text Adams has retained the common reading διαβάθρη, *a sh p'stadder*, which hardly makes sense; but in the notes to his translation (p. 339) he proposes to read διαβήτη, *a siphon*, a conjecture which has been adopted above.

(b) Galen, "De Locis Affect," vi., 3, tom. viii., p. 394, l. 12; Alexander Trall., ix., 8, p. 552, l. 29, ed. Basil; Paulus Ægin., iii., 45, p. 47, l. 46, ed. Ald.

(c) Alexander Trall., ibid.; Galen, ibid., and "De Sympt. Differ.," c. 6, tom. vii., p. 81, l. 2; and "De Cris.," i., 12, tom. ix., p. 597, l. 4.

(d) Avicenna, iii., 19, sect. 2, vol. i., p. 549, l. 18.

(e) "De Locis Affect.," vi. 3, tom. viii., p. 394, l. 14.

(f) "Pharmaceutice Rationalis," pt. i., sect. 4, cap. 3, first published in 1674.

(g) His words are, "Quod autem *plerique orthores* potum aut parum aut nihil immutatum reddi asserunt, a vero longissime distat; quoniam urina in omnibus (quos unquam nôvisse contigit, et credo ita in universis habere), tum a potu ingesto, tum a quovis humore in corpore nostro gigni solito, plurimum differens, quasi melle aut saccharo imbuta, mire dulcescebat."

(h) See the "Imperial Dictionary of Universal Biography," art. *Susruta*.

(i) Taken from Hessler's translation, tom. i., p. 184. His note on the passage is as follows (Fasc. ii., p. 39):—Mellitus urinæ status (*mad'humêhatva*) hoc loco nihil aluid esse videtur, nisi urinæ dulcedo, quam in *diabete mellito* animadvertimus; ad quem statum morbosum omnes affectiones urinarias suo, tempore pervenire Sus'rutas sua auctoritate affirmat." (See "Sus'rutas, Ayurvédas, id est Medicinæ Systema," &c. Erlang. 1844, &c.) See also Wise's "History of Medicine," vol. ii., pp. 328, 330.

Dr. M., Barnstaple.—The next recognised examination in Arts, etc., will take place at Apothecaries' Hall in September, which, if your son passes, he could commence his Hospital studies the ensuing October.

Hints on Army Medical Unification.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—If, as is likely, the unification of the Army Medical Corps be carried out, let us hope that, while the interests of the service are duly provided for, points of minor importance will not be neglected. It is customary to assume that a scientific corps should have a soul above buttons, yet it will be found that the most complete dress regulations in the service are those of the Royal Engineers, seen to by one of themselves. The occasion will be a favourable one to relieve us from our funereal trappings. When it was sought to popularise the Commissariat and to attract into it officers from the line, the first step was to give the corps a becoming dress. Belts of some shade of brown, with a *képi*, would be neat, workmanlike, and distinctive. The cocked hat might be retained in the administrative grades. It is, when the wearer is on horseback, a becoming head-dress, but no one in their senses would choose it to perform any duty in.

Servant's allowance should be granted to all officers of the corps. Attached as they will be to regiments for short periods, they cannot expect anything but the refuse of the regimental servants. The allowance will enable them to provide themselves with good servants, who will follow them from unattached to attached service, and *vice versâ*.

Quarters should, of course, be again choosen by date of commission, and not of appointment to regiments, as at present. Officers should be exempted from subscription to the band fund of regiments to which they will no longer belong. By attention to these points, apparently trifling, the comfort of Medical officers will be promoted, and the new corps will gain a popularity which it will be found to stand much in need of.

I am, &c., Army Surgeon.

COMMUNICATIONS have been received from—

H. R.; Mr. Metcalfe Johnson; Dr. H. Kennedy; Dr. H. G. Dalton; Mr. G. Harrison; Dr. C. B. Ker; Mr. G. Croxton; Mr. Sutherland; Dr. R. Douglas Powell; Mr. Henry Arnott; Mr. J. Chatto; Dr. Handfield Jones; Dr. J. R. Hardie; Dr. Sansom; Dr. Playfair; Mr. J. Sampson Gamgee; Dr. Wake; Dr. Felce; Dr. C. P. Collins; A Subscriber for Twenty-nine Years; Dr. J. C. Torry; Mr. F. P. Staples; Dr. Abbotts Smith; Army Surgeon; Mr. S. Lucas; Mr. W. J. B. Richards; Mr. Wykes.

BOOKS RECEIVED—

Curran's Lithotomy in India—Growths in the Larynx, by Dr. Morell-Mackenzie—Report of the Aboo-Lawrence School—Part II. of Deschanel's Natural Philosophy, edited by Professor Everett—How to Stamp out Small-pox, by Dr. Mordey Douglas—Selected Obstetrical Works of Sir J. Y. Simpson, Bart., edited by Dr. J. Watt Black—Rapport sur L'Ambulance de L'Ambassade D'Autriche-Hongrie à Paris—Braithwaite's Retrospect, vol. lxiii.

PERIODICALS AND NEWSPAPERS RECEIVED—

Pharmaceutical Journal—New York Medical Journal—Mechanic's Magazine—Chemist and Druggist—Bulletin Général de Thérapeutique—North British Daily Mail—Brighton Examiner.

APPOINTMENTS FOR THE WEEK.

July 1. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.

3. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.

Royal Institution, 2 p.m. General Monthly Meeting.

4. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.

Ethnological Society, 8 p.m. Meeting.

5. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.

Obstetrical Society (Council Meeting, 7½ p.m.), 8 p.m. Dr. Tilt, "On the Diagnosis of the least known Varieties of Uterine Inflammation." Dr. Copeman, "Notes of Cases of Interest." And other Papers.

6. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; West London, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.

7. *Friday.*

Operations at Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.

VITAL STATISTICS OF LONDON.

Week ending Saturday, June 24, 1871.

BIRTHS.

Births of Boys, 1008; Girls, 930; Total, 1938.
Average of 10 corresponding weeks, 1861-70, 1976·2.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	662	634	1296
Average of the ten years 1861-70	637·5	585·6	1223·1
Average corrected to increased population	...	...	1345
Deaths of people above 90	...	...	...

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	458125	14	6	4	1	7	...	1	1	4
North ...	618210	97	...	5	2	5	2	1	2	6
Central ...	383321	8	1	3	...	...	...	1	...	...
East	571158	22	7	5	...	12	3	2	...	7
South	773175	91	13	7	...	9	1	4	4	3
Total	2803989	232	27	24	3	33	6	9	7	20

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·631 in.
Mean temperature	56·2°
Highest point of thermometer	72·9°
Lowest point of thermometer	47·5°
Mean dew-point temperature	51·5°
General direction of wind	Variable.
Whole amount of rain in the week	1·50 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, June 24, 1871, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population in middle of the year 1871.*	Persons to an Acre. (1871.)	Births Registered during the week ending June 24.	Deaths Registered during the week ending June 24.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3258469	41·8	1938	1296	72·9	47·5	56·2	13·44	1·50	3·81
Portsmouth ...	125464	13·2	61	31	71·2	47·0	58·2	14·55	0·95	2·41
Norwich	81787	10·9	55	29	70·0	42·0	53·9	12·17	1·42	3·61
Bristol	173364	37·0	112	64	...	...	...	...	...	...
Wolverhampton ...	74438	22·0	65	31	67·7	40·9	53·1	11·73	2·11	5·36
Birmingham ...	378574	48·3	238	128	68·8	44·3	53·9	12·17	1·74	4·42
Leicester	101367	31·7	79	44	71·7	44·7	54·4	12·44	1·06	2·69
Nottingham ...	90480	45·3	49	32	70·7	44·5	55·1	12·83	0·98	2·49
Liverpool	526225	103·0	345	259	65·2	44·4	53·0	11·67	1·48	3·76
Manchester ...	379140	84·5	318	188	68·0	45·2	54·2	12·33	1·25	3·17
Salford	123851	23·9	93	61	66·5	42·8	52·7	11·50	1·74	4·42
Bradford	148030	22·5	183	64	70·0	44·0	53·3	11·84	1·27	3·23
Leeds	266108	12·3	275	110	65·0	45·0	52·6	11·44	1·35	3·43
Sheffield	255247	11·2	196	112	66·0	43·6	52·1	11·17	1·39	3·53
Hull	135195	38·0	92	50	70·0	38·0	55·3	12·94	0·90	2·29
Sunderland ...	103037	31·2	81	76	...	...	...	...	...	...
Newcastle-on-Tyne	136293	25·5	111	76	...	...	...	...	...	...
Edinburgh	179944	40·6	147	127	66·7	39·0	51·8	11·00	0·60	1·52
Glasgow	477627	94·3	401	302	69·0	43·0	54·7	12·61	0·76	1·93
Dublin (City, etc.)	322321	33·1	178	109	68·9	37·0	54·9	12·72	1·35	3·43
Total of 20 Towns in United Kingd'm	7336961	34·4	5017	3189	72·9	37·0	54·1	12·28	1·29	3·28

At the Royal Observatory, Greenwich, the mean reading of the barometer in the week was 29·63 in. The highest was 29·98 in. at the end, and the lowest was 29·34 in. at the beginning, of the week.

Note.—The population of Cities and Boroughs for 1871 is estimated on the assumption that the increase since 1861 has been at the same annual rate as between the censuses 1851 and 1861; at this distant period, however, from the last of these two censuses, it is probable that the estimate may in some instances be erroneous. The estimates for Leicester, Nottingham, Leeds, Bradford, and Hull are based upon a local enumeration of the inhabited houses.

* The actual numbers of the population of these cities and boroughs, as enumerated at the Census on April 3 last, will shortly be available; new estimates based upon these enumerated numbers will then be substituted for the above numbers.

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From the MEDICAL TIMES AND GAZETTE, June 4th, 1870.

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ORIGINAL LECTURES.

LECTURES ON FORCE AND ENERGY

DELIVERED AT THE ROYAL INSTITUTION, ON MAY 9 AND 16,

By CHARLES BROOKE, M.A., F.R.S.,
Consulting Surgeon of the Westminster Hospital.

Lecture II.

This lecture was commenced with an explanation of the various forms of wave-motion. In longitudinal vibrations, the motion of each disturbed particle is in a line coinciding with the direction of the wave; and as the disturbance is communicated from particle to particle in succession, each will be in a slightly different phase of its vibration from its predecessor; hence, not the particles themselves, but an *accumulation* of them, will travel onwards, followed at the interval of a period of vibration by a second accumulation, and so on. This was illustrated by an appropriate apparatus, but may be more familiarly illustrated by the wave that is observed to travel across a cornfield in a breeze. Sonorous vibrations are entirely of this character. In transverse vibrations the motion of each disturbed particle is in a plane perpendicular to the direction of the wave; and, as in this case, also, the particles are disturbed in succession, the juxtaposition of these in successive phases constitutes the wave. This was shown in an apparatus by a row of white balls, but a more familiar illustration is found in dropping a stone on the surface of still water; the *wave* only travels onwards, which may be shown by light floating bodies, as small scraps of paper, which are lifted only, and not carried onward by the crest of the wave. The phenomena of diffraction, and more especially those of polarisation, require that the vibrations which constitute light and heat must be of the latter kind.

If electricity, and therefore magnetism, consist also of vibratory motion (an assumption which the obvious interchange of the former with other forms of energy necessitates), then the probable form of electric and magnetic wave-motion becomes an interesting subject of inquiry. It must be observed that both electricity and magnetism possess a dual character not common to other forms of energy; there is *positive* and *negative* electricity, *austral* and *boreal* magnetism, but there is no analogous *a* and *b* condition in light or heat. Now, is there any conceivable kind of wave-motion that would present this duality of character? Undoubtedly there is—namely, a helical wave, in which the motion of each disturbed particle is in a circle, the plane of which is perpendicular to the direction of the wave. [A helix of this kind was then shown by the wave apparatus.] If a helix be called *positive* when it turns from left to right, and *negative* when it turns the contrary way, from right to left, then a progressive motion in the same helix will appear positive or negative, according to the end at which it is viewed; also, opposite motions in the same helix may be conceived to interfere, and to give rise to repulsion, while opposite motions in opposite helices would progress without interference—like two series of waves on the surface of the water crossing each other—and this may, perhaps, be the source of electrical attraction.

The intimate relation—it may be said the identity—of electricity and magnetism was shown by means of De la Rive's floating battery, consisting of a small Smee's element, floating in a vessel of water, the electrodes of which were connected with the ends of a small cylindrical coil of insulated copper wire resting horizontally on the element. This coil manifested all the properties of a floating magnetic needle, taking its position in the magnetic meridian, and one end being attracted, and the other repelled, by either of the poles of a bar-magnet. Since magnetic effects are ordinarily exhibited by steel or iron, it might be supposed by some that this metal is essential to the development of magnetic energy; it is, however, merely the ordinary and most susceptible vehicle of magnetism. Since magnetic energy is manifested in a direction at right angles to the electric current that produces it, the dynamic difficulty of resolving one helical wave into another at right angles to the former must not be lost sight of, but it is probably not insuperable. There is, however, some valid experimental confirmation of the helical character of the magnetic wave. The energy or, as it has sometimes been termed, the inertia of rotation—*i.e.*, the resistance which a rotating body offers to any change in the direction of its axis of rotation—is well exemplified by the gyrascope, and a more familiar illustration is found in the undeviating path of the rifle-ball. Now, if a mass of copper be suspended by a string between the poles of a powerful electro-magnet, and be put in rapid rotation by twisting the string, the instant that the magnet is excited, the rotation is arrested; and if the mass be now forcibly rotated, so much heat is developed by molecular friction, that fusible metal contained in a copper tube similarly placed may be actually melted and poured out. This arrest of the motion of the rotating mass would be a necessary dynamical sequence of the helical wave-motion assumed to constitute magnetic energy; for in that case each disturbed molecule would be describing a circular orbit in a plane at right angles to the lines of magnetic energy, and would by its own energy resist any displacement of its axis of revolution; and this view was further confirmed by another experiment. A ball of copper with a small pulley on its axis was placed at the end of a frame, so as to be capable of being rapidly rotated by a wheel and band, when placed between the poles of the electro-magnet; its axis of rotation either coinciding with, or being placed at right angles to, the lines of magnetic energy. When the axis of rotation of the ball coincides with the magnetic lines, there would be obviously no change in the direction of the planes of the assumed molecular revolution, and consequently no heat ought to be developed; and that was shown to be the case by means of a thermopile connected with a galvanometer and brought near the rotating ball. When, however, the axis of rotation of the ball was placed at right angles to the magnetic lines, it was equally evident that heat was immediately developed.

The gyratory nature of the magnetic wave is further confirmed by a fact first observed by Faraday—namely, that if a beam of polarised light be transmitted through a piece of heavy glass placed between the poles of an electro-magnet, so that the axis of the beam may correspond with the lines of magnetic energy, then, if the magnet be excited, the plane of polarisation is twisted a little, either to the right or left, according to the direction of magnetic polarity—a result by no means inconsistent with the hypothesis of molecular orbitation.

The lecturer then referred to some of the physiological bearings of the subject. He remarked that *wave-motion* is probably the universal medium of communication between mind and matter; the means by which objective impressions are rendered cognisable to the senses. If light and sound consist in the perception of their respective vibrations, this must be obviously true in regard to the functions of the eye and ear. Nor is the dependence of the cognate senses of taste and smell on heat-vibrations less evident. Very cold substances are notoriously tasted and smelt with difficulty. They are then less volatile—*i.e.*, less capable of assuming the gaseous form in which vibrations of their own special periods are readily excited; and just as different substances in the state of incandescent vapour emit luminous rays of different definite periods of vibration, and thus produce their special bright lines in the spectrum, so the odours and savours of substances may not improbably depend on the different periods of vibration of which their vapours are specially susceptible. The organs of common sensation are certainly amenable to the impressions of heat and electricity, but they are also susceptible of various other impressions not so readily referable to vibratory motion; but in all cases, whether in the nerves of common or special sensation, the existence of a due amount of thermic energy is essential to the exercise of their functions, which are impaired by its diminution, even to the production of complete local anæsthesia. No doubt can be entertained of the close relationship, if not actual identity, of electric and nervous energy. If, then, electricity be admitted into the category of wave-motions, the transmission to the sensorium of all impressions received by the special organs of sense, is obviously comprised in the above mentioned generalisation.

Another important physiological point for consideration is the nature of the existing relations between electric energy and muscular action. The opinion usually entertained on this subject is that a muscle contracts in obedience to some "stimulus" dependent on electricity, and transmitted to it by a nerve from a nerve-centre; but the view entertained by Dr. Radcliffe,(a) that contraction ensues on the negation of electrical charge, appears more in accordance with observed phenomena; and notably with that of *rigor mortis*, the universal contraction of the muscles which ensues immediately on the cessation of nervous action, when unquestionably no "stimulus" can be transmitted. It is well known that the interior and exterior

(a) "Dynamics of Nerve and Muscle." Macmillan, 1871.

of the fibres of nerve and muscle are in opposite electrical states, so long as they are in a state of activity; and this implies some quasi-insulating power in the sarcolemma and neurilemma. The necessary limits of a lecture forbid entering into any detail of the relation of these views to the state of a connected nerve and muscle, known as "electrotonus," but they are entitled to careful consideration, and are fully detailed in the work already mentioned. That the contractile force of a muscle is maintained in a potential condition by the ordinary state of electrical charge, and is brought into action only at the moment of discharge, when electrical tension ceases, is further rendered probable by the demonstrable fact that if a muscle which has not lost its vitality be *surcharged* with electricity, it becomes abnormally elongated. With the apparatus designed to show this fact, an experiment bearing some analogy was shown. A thin band of vulcanised caoutchouc, coated on both sides with a metallic varnish, was fixed at one end, and stretched by a cord passing over a pulley, and having a weight at the end of it; any alteration in the length of the band was rendered evident by the movement of a long index connected with the pulley. The metallic coating of one side of the band is insulated; that of the other side is connected with the earth. If, now, the insulated side be charged by an electrical machine, the other side becomes oppositely charged by induction, and the consequent attraction of the charged coatings causes a visible elongation of the band, which, however, disappears at the moment of discharge.

A further point remaining to be considered in this lecture is the means by which the various kinds of energy are transmitted. Sonorous vibrations are freely transmitted by all kinds of homogeneous matter, whether in the gaseous, fluid, or solid state; in solid matter not homogeneous the amount of transmission depends upon structure. Thus, the transmission of sound through wood is much less perfect in the transverse than in the longitudinal direction; it is much more impeded by cork, and almost intercepted by cotton-wool and similar substances. Electric energy is more or less freely transmitted by most kinds of matter, except glass, silk, and the resinous products of the vegetable kingdom. Since the transmission of the vibrations of light and heat through an absolute vacuum is obviously impossible, because the transmission of motion implies the presence of matter to be moved, it becomes a necessity that infinite space must be pervaded by some highly elastic and attenuated kind of matter, as the medium of the transmission of light and heat from the central luminaries of all existing solar systems to their attendant satellites. This, in entire and probably unavoidable ignorance of its nature, has been termed "ether," and the existence of ether has been assumed to be demonstrated by the periodic retardation of Enke's comet. But it has been further assumed that ether *alone* is capable of transmitting the vibrations of light and heat, and must therefore exist interstitially in all kinds of translucent and transcalent matter.

The only basis on which this *interstitial ether* hypothesis rests is the assumed incapacity of ordinary matter, whether in the solid, liquid, or gaseous state, to transmit the extremely rapid vibrations of light and heat, for no more valid reason than this: that the only vibrations of ordinary matter of which any actual knowledge exists—namely, those of sound—are almost immeasurably slower than those of light and heat, the former being numbered by at most a few thousands, the latter by hundreds of millions of millions in one second of time. But it must be borne in mind that sonorous vibrations are always *longitudinal*, in the production of which repulsive forces are *alone* concerned; whilst, on the contrary, light and heat vibrations are necessarily *transverse*, and the production of these is solely due to *attractive* forces. Now, these respective forces obey very different laws, for whilst attractive forces obey generally, and probably universally, the law of the inverse *square* of the distance between the attracting particles, molecular repulsion must obviously—at all events, in gaseous matter—obey the law of the inverse *cube* of the distance, as a corollary to Boyle's law of the constant ratio (within wide limits) of gaseous pressure to density; therefore, from the rates of transmission of longitudinal vibrations, nothing can be predicated respecting the possible rates of transmission of transverse waves. It has been asserted that molecular repulsion is a dynamic resultant effect of molecular vibration, and therefore incapable of expression by a statical law; but it is very doubtful whether molecular attraction is not equally a dynamic sequence, and therefore not a whit more entitled to claim a statical law than the former. This view was illustrated by an experiment, in which a disc of card at the end of a light suspended rod of wood, and placed near a tuning-fork, is attracted or drawn towards the latter when thrown into vibration by means of a violin-bow.(b)

Sir C. Wheatstone has long since shown that electricity traverses a copper wire at a velocity considerably greater than that of light, and probably not less than 250,000 miles in a second. Whether electricity be matter or motion, this result shows that the capability of matter to transmit the vibrations of light is by no means improbable. Moreover, it is now generally admitted that when a body becomes heated its own molecules, and not merely those of the supposed interstitial ether, are thrown into a state of vibratory motion, the amount of heat corresponding, probably, to the amplitude of the vibrations. If, then, ordinary matter be assumed to be susceptible of heat-vibrations, can any valid reason be assigned for its insusceptibility of light-vibrations, when the close relationship, if not the absolute identity, of these two forms of energy is manifested by so many phenomena common to both, such as those of reflection and refraction, polarisation, and the reciprocal properties of emission and absorption, whether general or selective.

The reciprocity between the powers of radiating and absorbing both light and heat which exists in all substances, so far as experiment has shown, presents a cogent argument in favour of the hypothesis that the energies of both light and heat are exerted on the molecules of sensible matter, and not on any supposed interstitial medium. It is a well-established fact that those surfaces of bodies which radiate heat most freely also absorb most readily—that is to say, that molecular condition which is more or less favourable for imparting to adjacent matter the wave-motion of heat is also more or less favourable to its reception; and the same holds good with respect to the selective absorption of heat—namely, that any substance absorbs more freely the special kind of heat which it radiates. Thus, while a plate of rock-salt absorbs little more than 3 per cent. of the heat radiated by heated black platinum, it absorbs 30 per cent. of the heat radiated by a piece of its own substance, heated to the same temperature. Precisely the same phenomena are observed with respect to light: for example, the scoriæ floating on the surface of a pot of molten metal glow more brightly than the clean surface of the metal; and if an encaustic tile with a pattern on it—say of black and white—be heated red hot, and placed in a dark room, the black portion will be observed to glow much more brightly than the white. In these instances the molecular conditions that facilitate absorption equally facilitate emission; and the case is the same with regard to selective absorption. Thus, a piece of red glass, when heated, emits a greenish light—that is, the absorbed correspond with the emitted rays. And a still more striking instance has been observed by Professor Balfour Stewart—namely, that a tourmaline, heated to incandescence, emits light polarised in a plane perpendicular to that which it transmits. Here the structure, that enables the crystal to take up wave-motion in one direction only, compels it to impart motion exclusively in the same direction. If, then, it be admitted that the molecules of all kinds of matter are susceptible of thermic energy, how can it be denied that they are equally susceptible of the energy of light, when the varied phenomena are shown to be in all cases precisely analogous.

All substances in the state of incandescent vapour are found to originate or emit rays of definite refrangibility, and to form an interrupted spectrum, consisting of bright lines only; moreover, the vapour of every substance is capable of absorbing the rays that itself emits when incandescent—that is to say, of responding to and appropriating those special vibrations of which it is most susceptible. This is readily demonstrated by means of sodium. If burnt in a spirit-lamp it emits only the double D line in the spectrum, and if interposed in a state of vapour, it absorbs the vibrations of the same period, and cuts out the same line from a continuous spectrum. A similar reciprocity of emission and absorption exists in sonorous vibrations. If two harps tuned exactly in unison be placed at the opposite sides of a room, a note struck on one will excite vibrations in the corresponding string, and in that only, of the other; is it less reasonable to attribute the former phenomena to the special susceptibility of the molecules, than to ascribe the latter to the special tension of the reciprocating strings? It is quite true that incandescent bodies in the solid or fluid state emit rays constituting a continuous, not an interrupted, spectrum. This is no doubt due to the interference of aggregation with the motion to which the molecules are most prone; for it has been observed that the bright lines in the spectrum

(b) This experiment, though perfectly successful in the quiescent atmosphere of the empty theatre, was much interfered with by the convection-currents due to the presence of the audience.

become more sharply defined by attenuation of the emitting vapour or gas, and that they become broader and less defined by its condensation.

It has appeared, from the investigations of Mr. Norman Lockyer, that the periodic time of vibrations emitted by incandescent hydrogen in the vicinity of the sun is sometimes slightly modified by the proper motion of the emitting gas; in this case some portion of the bright line will be slightly deflected towards the violet or red end of the spectrum, accordingly as the wave-length is diminished or increased by the proper motion of the gas; occasionally deflections in both directions simultaneously have been observed, showing the existence of a solar cyclone. A precisely analogous acoustical phenomenon was demonstrated by placing a free reed at one end of a long hollow rod, and a small pair of bellows at the other end: if the rod were briskly waved to and fro while the sound of the reed continued, its pitch appeared to be sharpened to those whom it approached, and flattened to those from whom it was receding. It follows from these facts, as an irresistible conclusion, that the molecules of ordinary matter are susceptible of the vibrations both of light and heat, and are therefore equally capable of transmitting them; and, if so, the hypothesis of the necessity of interstitial ether becomes absolutely groundless. If it were asked how, since ether is admitted to occupy infinite space, it can be imagined to be excluded from the spaces occupied by ordinary matter, the lecturer would reply, by means of a very simple hypothesis which he ventured to put forward in the introduction to the last edition of his "Elements of Natural Philosophy"—namely, that ether (like its liquid namesake with water) is immiscible with ordinary gaseous matter, and therefore floats above the attenuated confines of the atmosphere; it would thus be not less capable of fulfilling its beneficent mission of supplying organic life with the indispensable energies of light and heat; for, as no limit can be assigned to the *possible* amount of molecular displacement in a medium so attenuated as ether must necessarily be, an amount of energy is conceivable in its molecules, which would be sufficient to impart effective motion to the indefinitely denser forms of cognisable matter.

ORIGINAL COMMUNICATIONS.

CARIES OF ATLAS AND AXIS.

By THOMAS STRETCH DOWSE, M.D.,
Medical Superintendent, Highgate Infirmary.

M. R., aged 31, a woman of dissolute habits, and much given to drink, was admitted into the Highgate Infirmary on March 24, 1871. For a week previous to this, she had scarcely been sober for an hour together, and after drinking a large quantity of rum, she fell upon the ground perfectly intoxicated. How long she remained in this position seems uncertain; when, however, consciousness returned, she felt pain, and a sensation of stiffness at the back of the neck and head. This was two days previous to her admission. When first seen, she appeared weak and prostrate, and, whenever she moved, supported the head with her hands. She was able to walk without help, but the changing of the body from the vertical to the sitting or lying posture gave her increased pain, and unless the head was supported it appeared perfectly distressing. To move the head, either to the right or left, was an act of great difficulty, and at times quite impossible. She experienced some inconvenience upon swallowing, and complained that the effort gave her pain at the back of the head. There were no symptoms of paralysis, either motor or sensory. Her appetite was tolerably good, and she masticated with perfect freedom.

Upon examining the seat of pain, which was centred at the back of the neck, in the occipito-atloid region, she appeared much discomfited, and complained bitterly. No sign was manifested at this time of any grave lesion. She continued much in this state for a week, when the shoulders and neck were fixed, and the head rotated upon the spine; but this did not appear to give her so much pain as when the head was moved suddenly, or when it was raised from the pillow by its own weight. At this time no crepitation was felt, neither did any temporary form of paralysis ensue, as it would have done had pressure been made upon the cord. She kept to bed from the first, resting on her back, with the head and neck carefully adjusted, and retained in position by pillows, for the reason that, although no fracture nor dislocation was diagnosed, it was thought extremely probable that the joint and its surroundings were seriously injured. In order that the parts might be kept at perfect rest in the most favourable posture, a guttapercha collar was made to fit the neck, overlapping the shoulders and supporting the chin. This appliance she bore for some short time only, as it gave her great discomfort. She continued much in this way for a month, presenting no other symptom or sign than those stated. After this, however, she grew weaker, and the pains increased in severity; so much so, that the slightest effort she made to move or turn increased them to such a degree that she was compelled to abandon all such attempts, unless assistance was rendered. Six weeks after admission, chloroform was given to her, and whilst insensible the head and cervical spine were carefully manipulated. It was observed that the movements of the former upon the latter were abnormally free, and a slight grating was thought to be appreciable. From this time, which was about a fortnight previous to her death, she was supported chiefly by fluids, which she took in considerable quantities, without any great difficulty, up to within two days of her decease. No form whatever of paralysis, either temporary or otherwise, took place. There was no incontinence of urine or fæces; no squint, vomiting, nor intolerance of light. For some days prior to her death, exhaustion set in, arising from constant pain and inanition. Her face became puffy; the eyelids were agglutinated with muco-purulent matter. She appeared insensible to pain, and spoke in a low muttering tone. Hæmorrhagic purpura appeared over the buttocks and lower extremities; and she sank on June 5.

Autopsy, made twenty-four hours after death, revealed, in relation to the brain—the dura mater perfectly healthy; the arachnoid membrane was raised by fluid over the surface between the convolutions like so many distended bullæ; the pia mater was greatly congested, and the capillary vessels were mapped out, even to the most minute ramifications; the brain-substance was of healthy consistence and free from disease; the medulla oblongata, spinal cord, and pons varolii were healthy, but the membranes in the immediate neighbourhood of the injury were diseased. The three joints—namely, occipito-atloid, atlo-axoid, and odonto-atloid—presented the following condition:—The occipito-atloid, with the synovial membranes, were highly congested and of a purplish-black colour. The cartilages were nearly destroyed by ulceration, leaving the articular surfaces rough and friable. The odonto-atloid was nearly destroyed. The transverse ligament was completely ulcerated through, leaving the odontoid process free to move in any direction. This process of bone was partially destroyed by carious ulceration, and what remained was for the most part soft and friable. The cartilages of the lateral atlo-axoid joints had commenced to ulcerate at the edges, which were carious, and the articular surfaces roughened. The check ligaments were quite healthy.

This case presents some points of manifest interest:—1st. Its rarity is worthy of note. 2ndly. The lesion itself, commencing, as it probably did, primarily in the transverse ligament or in the synovial membrane in connexion with it, doubtless from the excessive strain brought to bear thereon at the time of the fall. 3rdly. The extensive mischief that existed in this important region, not producing any pressure upon, or injury to, the medulla oblongata; but it is well known, anatomically, that this part of the spinal canal allows of considerable displacement between the atlas and axis without serious symptoms supervening, and the integrity of the check ligaments greatly helped to retain the odontoid process in its natural position. The treatment adopted was perfect rest, counter-irritation, the internal administration of belladonna, bromide and iodide of potassium, and hydrate of chloral, also nocturnal injections hypodermically of morphine and atropine.

THE RULING PASSION.—During his stirring recital of the sufferings and destruction endured at Chatillon by the useless cross-fire of the insurgents (*e.g.*, 2400 shells putting only six men *hors de combat*) and Versaillais, M. Amédée Latour thus deplores one of his grievances:—"What a suffering for a lover of the garden like I am! Here I have under my eyes my magnificent pear-tree covered with blossom and devoured by caterpillars. I can count sixteen frightful clusters of them. To destroy them the tree must be climbed, and that is an impossibility; for, being in sight of the forts at Issy and Vanves, the instant the artillerymen perceive any object in the garden or at the windows, they throw a shell. Woe to anyone who ventures to light a candle in any of the upper rooms."

TWO FATAL CASES OF GUNSHOT WOUND OF HEAD, WITH REMARKS.

By FRANCIS H. WELCH,
Assistant-Surgeon 1st, 22nd Regiment.

Case 1.—T. L. was maliciously shot by J. B.—the motive, "a feeling of being unfairly used by T. L., his non-commissioned officer, and inability to get any redress;" the instrument, an Enfield rifle and cylindro-conoidal bullet. The victim was asleep at midday in a reclining position on his cot, his back resting upon the rolled-up bedclothes and mattress, his head on one side, the face away from the murderer and towards the wall, a distance of two feet; the murderer stood about six feet off, which would bring the muzzle to about one foot from the body. The bullet entered the neck on the right side, emerged at the left temple, and struck against the wall. Death was instantaneous, and the amount of venous blood from the opening of exit excessive. He was seen by me within ten minutes. The countenance was very pallid and perfectly composed, but so altered in expression that many of his comrades were unable to recognise him; the muscles flaccid, and the body apparently in exactly the same position as before death, no movement or spasmodic action having followed the sudden lesion to the cerebral substance. The aperture of entrance was situated one inch and a half below the angle of the lower jaw, right side, and one-third of an inch outside the inner edge of the sterno-mastoid; the size of it was somewhat larger than the diameter of the bullet, round, with edges slightly ragged, the lower half inverted, the upper half everted (this evidently due to the obliquity of course of bullet to the surface of skin); there was scorching and blackening of surrounding tissue. The aperture of exit was one inch and a half behind the left external angular process of frontal bone, and the same distance above the zygomatic arch, sufficiently large to admit all the fingers; the scalp very lacerated, bloody, and everted, with much disorganised cerebral substance and many bone fragments scattered around. Venous oozing ensued for some time after death, and blood flowed from the nostrils and mouth.

Sectio cadaveris was performed twenty-two hours afterwards, and revealed the course of the bullet as follows:—It lacerated the fibres of the sterno-mastoid, and punched out a segment from the external jugular vein, leaving it empty, with an oval, clean-cut lateral aperture, involving about one-third of an inch of its calibre; it passed between the great vessels of the neck, dissecting them completely from each other and from the accompanying nerve, for the distance of one inch and a half, causing ecchymosis of the sheath, but no external laceration of the coats; entering the pharynx, it crossed in front of the vertebræ, fractured the posterior part of left superior maxillary and palate bones, penetrated the skull through the great wing of the sphenoid, and emerged at the left temple, shattering the parietal and frontal bones to a fearful extent where forming part of the temporal fossa, and sending fissures as far as the surrounding sutures. The brain-matter of the left anterior lobe was reduced to a pulp, and numerous spicula were scattered around in its substance. The edges of the cranial bones at the point of exit were levelled off in a direction outwards, the inner table being less carried away than the outer; the opposite condition prevailing at the entrance. The periosteum was completely detached from the whole left parietal and half of frontal bones, the dura mater to a much lessened extent. The course of the bullet was direct, a probe traversing it without impediment. The heart was empty and flaccid; the veins comparatively bloodless. The external coat of the carotid artery was ecchymosed, and on opening it a transverse laceration and incurving of the inner and middle tunics had occurred (probably at the point of direct impingement of bullet); above which, occupying the whole calibre of the vessel and occluding it, a firm, pale red, uniform, fibrinous clot, very devoid of red corpuscles, and strongly adherent to the inner coat, had formed, extending from the laceration for the distance of three inches along the external carotid and superior thyroid arteries, and convex at each free extremity; the vein was not lacerated, nor any deposition of fibrine in its interior.

The main features in this case were—the position of the limbs and body unaltered in the transition from sleep to death by the sudden injury to the cerebral mass; the progressive increase of distribution of lesion to the parts adjacent to the track of the bullet from entrance to exit; the eversion of upper part of entrance-wound, the inversion of the lower; the clean-cut partial section of the external jugular vein; the absence of appreciable lesion to the internal jugular; the dissection of the deeper vessels and nerve, and the rupture and incurving of the middle and inner coats of the artery, with the formation of the firm, uniform, fibrinous coagulum, so instantaneous in production; the great extent of injury to the flat bones entering into the formation of a cavity with the direction of the bevilling, corresponding to loss of impetus of missile, and the comparative limited fracture of cancellated bones, such as the tuberosity of superior maxillary; and the non-contracted state of heart, rigor mortis being present, probably dependent on the injury to the pneumogastric nerve.

Case 2.—Suicide by Enfield rifle; bullet cylindro-conoidal. Private D. was an habitual tippler, and always extremely nervous and tremulous from alcoholism; had lately been in Hospital with ebriositas, and within a fortnight of his death had had a thorough debauch. It was not noted that he was more depressed or nervous than usual for the two or three preceding days; it was proved that he was in his ordinary state the evening previous. Twelve months prior he had re-enlisted, and often expressed his regret for so doing, on account of his ability to have earned good wages as an artisan: the sole ascribed cause for the act of suicide. Early in the morning at "rouse parade," while lying in bed, he was warned by the corporal for fatigue duty; he replied "All right." Within a few seconds, those who were around him (within ten yards) "heard a noise like to the explosion of a very loose blank cartridge in the fire, in the direction of his bed," but wholly "insufficient to cause alarm." One (his comrade *par excellence*) stepping forward, said, "D., you have loose powder about you," and obtaining no answer, drew the bedclothes (which covered the head completely) down, when he saw the blood streaming around, and found that the man had shot himself. The bed upon which the body lay was upon the floor (usual custom), a form standing transversely at the head, about one foot and a half in height. The clothes covered completely the body, warm and flaccid. On turning them down, the corpse was observed lying on the back, with the face turned towards the right side, legs straight down; the right arm across the abdomen, with the hand on the left thigh; the left with the elbow away from the body, flexed nearly at right angle, the hand lying by the side. The rifle was in the bed, with the stock outside the right foot, nipple outwards; the barrel across the chest, with the muzzle on the neck, directed towards the left ear; the ramrod on the right side of the bed. The bullet, after emerging from the cranium, had perforated the form (deal board one inch thick), indented the wooden wall of room posterior to it, on exactly the same level and in a line with the bed, and then fallen on the floor not much damaged. The amount of blood in the bed was excessive, and death instantaneous.

The post-mortem, thirty hours after death, revealed as follows:—Excessive rigidity of muscles; countenance very pallid and composed, but usual expression entirely altered; slight ecchymosis of conjunctivæ; skin behind the left ear blackened, and hair singed; aperture of entrance over left mastoid process smooth, round, with edges inverted, slightly exceeding the diameter of bullet. A large, ragged wound, about three inches in diameter, with scalp very lacerated, and clots of blood, brain-matter, and pieces of bone adherent, situated above and behind the right ear, formed the point of exit. The course of the bullet was directly across the skull, obliquely upwards. It had separated the left temporal bone at its squamous suture, and broken into fragments its petrous portion, passed directly through the posterior lobes of the cerebrum, reducing them to a pulp with the cerebellum, and, fracturing the posterior portion of the right parietal with the upper half of occipital bones, emerged as before stated. At the entrance the inner table of the skull was more fractured than the outer, and the dura mater more stripped off than the pericranium; at the exit the opposite condition prevailed, both as to bones and to membranes. The left hand, on its palm, was blackened by exploded gunpowder, and a round patch of the same, one inch in diameter, was situated upon the inner side of the dorsum of the left foot, two inches behind the great-toe.

The theory was that the man, while lying in bed, had placed the stock of the charged rifle between his feet, the barrel over his chest and towards the left shoulder, the nipple resting against the inner side of the dorsum of the left foot, as proved by the mark of explosion, the knees bent (from the fact that the Enfield from the muzzle to the trigger is only three feet five inches long, and the man being five feet six inches and a half high, it would have required more twisting round of the body to bring the ear into contact with the muzzle than the circumstances warranted), and with the right hand, grasping midway

the barrel and the left the muzzle, the head well bent round to the left side, he had pressed the trigger with the right great-toe, the body falling into the position above stated; and, the rifle lying somewhat lower, with the nipple outwards on the outer side of the right foot, from the recoil and the outward direction given it at the time of firing, the bullet emerging from the head passed through the form, about six inches in height from pillow, the line coinciding with that of a rifle afterwards placed in the position stated.

Apart from the local results of the missile, and the method adopted for the suicidal purpose, the main interest in this case is centred in the character of the explosion, and, Medico-legally, is of great importance, substantiating strongly many of the statements advanced on the trial of Risk Allah, at Brussels, for the murder of his ward, Readly, detailed in the *Medical Times and Gazette*, November 3, 1866. The facts narrated were personally obtained within half an hour of the disaster. The head and body were completely covered by the bedclothes. The ramrod, lying by the bed, out of its groove, indicated a probable charging of the weapon within a short time of the infliction of the injury; while the care bestowed on the replacing of the remaining cartridges(a) attested the absence of all hurry over the act. That the whole charge of powder was used is proved by the effects produced. Those within ten yards of the man, engaged in dressing, were in accord that the noise produced "sounded merely like the ordinary puff made by throwing a loose cartridge in the fire," and was not of sufficient intensity to call forth alarm, the majority taking no heed of it. Those in the room below (a thin board floor separating them) described what they heard "like to the shutting of a door;" while those "on guard," about fifty yards' distance, and separated by two compartments, discerned nothing. The barrack-room was one of a series of compartments in a large wooden building, and accommodated about thirty-five men, with beds rather closely arranged on the floor; the partitions of thin planking. Sounds were very freely transmitted from one part to the other. The bedclothes may have been partially accountable for the extreme muffling of the explosion, but the main cause would apparently be due to the placing of the muzzle of the rifle in direct or close contact with the body. At the trial referred to, M. Charrins stated, "A gun fired near the object makes only a dead report, nearly like the noise produced by a bale of goods dropping from a pulley. I had proof of it at Namur, on the occasion of the death of a corporal, who killed himself by firing his gun with the muzzle near the body in a room where his comrades were playing; they heard nothing."(b) In Readly's case, "no report of a gun was heard in the hotel, although a maidservant was cleaning down the stairs at the time the catastrophe must have taken place." In the present instance the muzzle was probably a few inches from the skin, as the wound was round, smooth, and but slightly larger than the diameter of the bullet, and in the position of the body under the bedclothes, the course of the missile, and the attendant circumstances, strangely coincides with the facts adduced at the trial of Risk Allah, and strongly corroborates the educed verdict.

From these instances, it is unquestionable that death may be caused by the discharge of an explosive weapon, either on the part of the individual himself or by another, the muzzle applied close to or within two or three inches of the skin, with such a complete muffling of the usual accompanying report, as to cause no apprehension of the occurrence to individuals placed within six or ten feet of the injured person.

Metropolitan Convalescent Institution. — The half-yearly court of the above Institution was held on Tuesday, at the offices, Piccadilly. The report stated that the admissions of patients during the half-year had been—at the Walton Asylum, 1219; at Mitcham, 140; and at Hendon, 169. In January last, in consequence of the prevalence of small-pox in the metropolis, it was determined that no patients should be admitted who were not under the protection of recent revaccination, and the Board is now happy to report that no case of that disease has appeared in either of the Asylums. The Walton Asylum is now complete in all its details, and affords accommodation for 280 patients.

(a) After taking one from the usual packet of ten, the rest were so carefully tied up as at first sight to deceive one as to their having ever been disturbed, and subsequently restored to their proper ammunition-pouch.

(b) From experiments made by M. Charrins, as reported in the *Medical Times and Gazette* already quoted, "When a gun is discharged close to the body, the wound is large and blackened; but if at a little distance, the wound was large and clean."

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

MIDDLESEX HOSPITAL.

PULSATING CAVERNOUS ANGIOMA IN LEG AND IN FOREARM—SUBCUTANEOUS LIGATURE OF THE TUMOUR IN THE LEG.

(Under the care of Mr. J. W. HULKE.)

Mary C., a housemaid, aged 27, was sent up from Surrey on April 24, 1871, to consult Mr. Hulke about a swelling in her leg. There was found, on admission, a semi-globular swelling above the inner ankle, overlying the inner surface of the tibia, disappearing almost completely on pressure, refilling when this was removed, most quickly when the limb was circularly compressed above the swelling, and more slowly when similarly compressed below. The swelling also pulsated distinctly and rhythmically, its diastole occurring a little behind that of the radial artery. The swelling was lobulated, two inches in diameter, and the skin was slightly thinned over the summit, where some large bluish veins were visible beneath it. There was also a slightly varicose condition of the right internal saphena. The tumour at the ankle had been first noticed in the patient's fourteenth year, when she said that it was quite small. In its present condition it increased temporarily, and became painful when she stood. There was also noticed—what the woman herself had paid but little attention to—considerable swelling of the front and inner side of the left forearm for about five inches downwards from the inner condyle, its girth at two inches below the condyle being ten inches and a quarter, that of the right arm being eight inches and three-quarters at the same point. The cutaneous group of ulnar veins was unusually distinct. The swelling was greatly reducible by pressure, and returned at once on this being removed. It had a soft, doughy feel, and communicated to the hand a purring thrill and rhythmical pulsation, which latter was even visible when the arm lay relaxed on the bed. Both thrill and pulse were arrested when the brachial artery was compressed, but this did not obviously lessen the bulk of the swelling. Her attention had been first directed to this swelling when she was about 20, by some pain in the part after unusual exertion. On the forefinger of the same arm there was an oval, elastic swelling, at the outer side of the first phalanx, the size of a bean, and a similar larger tumour above the right wrist; but neither of these pulsated, and they were clearly bursæ connected with the flexor tendons.

On April 26 chloroform was administered, and Mr. Hulke tied the tumour at the ankle in halves, subcutaneously, with the immediate effect of rendering it very tense and pulseless.

The operation was followed by some painful swelling of the part, and two days later the anterior and lower border was observed to pulsate feebly. By May 1 there was a free blood-stained puriform discharge, and carbolic acid lotion dressings were applied. Some discharge has been escaping since, but the pulsation quite stopped by May 3, and the tumour began to contract and harden. The tumour in the forearm has not as yet been interfered with.

EPITHELIOMA OF FOREARM SPRINGING UP IN AN OLD SCAR—AMPUTATION—RECOVERY.

(Under the care of Mr. J. W. HULKE.)

Henry R., a healthy-looking farm-labourer, aged 64, came up from Sussex on April 25, and was admitted into Forbes Ward with an exuberant warty condition of an old scar left by a lacerated wound of the forearm. Many years previously a waggon-wheel had crushed his arm, grinding away the soft tissues from the bones, and so severely injuring the limb that the man said that the wound had taken three years in healing. After this it continued soundly healed for thirty years, but ten years ago the thinnest point of the scar broke open, and gradually a warty excrescence formed, which slowly attained its present dimensions. When he had considered it becoming inconveniently large, he had been in the habit of paring it with a knife.

On admission the affected forearm was found to be in all respects less developed than the opposite limb, and both elbow and wrist were partly flexed from the contraction and cicatrisation of the flexor muscles. On the inner and under surface of the forearm, from near the elbow downwards, was a pro-

minent, tuberous, warty, cauliflower-like mass sprouting from the old scar, measuring four inches by five, and exuding a scanty, thin, offensive discharge. There was no enlargement of the axillary lymphatic glands. There was no family history of cancer. The man had only lately begun to complain of gnawing pain in the part, which hindered sleep, and up to a recent period he had been able to perform his usual farm-work, ploughing, mowing, etc., using the arm freely.

On April 26 chloroform was given, and Mr. Hulke amputated the arm just above the elbow by the circular method. There was free bleeding, and many vessels were tied. Three hours later, however, arterial hæmorrhage recurred, the nurse having given the man a cup of warm tea. A tourniquet was applied, and Mr. Hulke sent for, and several more spouting vessels were ligatured. One vessel in the bone spouting freely after continued pressure, Mr. Hulke plugged it with a small peg of wood, and then closed the wound and applied carbolic acid dressings. The bleeding did not again recur, and the man rapidly recovered from the operation. He was allowed to get up, the stump being nearly healed, on May 13, but he has not yet left the Hospital. The microscopic examination confirmed the naked-eye appearances of epithelioma, the cells being of a large, coarse, squamous type.

EPITHELIOMA SPRINGING UP IN SCAR OF A BURN—REMOVAL—RECOVERY.

(Under the care of Mr. J. W. HULKE.)

Caroline D., a nurse, age 47, was admitted into Regent Ward on February 14, 1871, with an oval nodulated mass on the right side of the spine and over the lower part of the scapula. The surface was ulcerated and coarsely granulated, and discharged a very offensive sanguineo-purulent fluid. It was very painful, preventing her from sleep and from lying in comfort on the back or left side. In childhood she had been severely burnt on the back, and the wound had been three years in healing. Four months ago she received a severe blow upon the scar, breaking its skin and causing it to bleed very profusely. From that time a warty growth had appeared in the injured spot, and spread with great rapidity, in spite of caustics which had been applied to check its growth; and of late her general health had suffered. After she had passed several restless nights, from pain, on February 22 Mr. Hulke caused chloroform to be administered, and removed the mass with about an inch of scar tissue all round, and, as soon as the free bleeding was arrested, dressed the surface and edges of the wound with Vienna paste spread on small strips of lint, and covered all with carbolic oil dressing and cotton wool. There was some troublesome oozing of blood for some time after her return to bed, necessitating the dressings being removed, but subsequently, as the eschar began to separate (March 2), a clean granulating surface was exposed, with healthy discharge. On March 20 the following note was made:—"The entire wound is now covered with small florid granulations. The discharge is moderate, inodorous, and creamy. The edges are thin, and from them a thin bluish pellicle of new skin is advancing on all sides. She is much freer from pain, and stronger." By May 5 the wound had cicatrised completely, save for a vertical stripe about half an inch wide, and the scar seemed perfectly healthy.

BIRMINGHAM GENERAL HOSPITAL.

A CASE OF FACTITIOUS URTICARIA (GULL).—A CASE OF PROTRACTED INTENSE MENTAL ANXIETY, CULMINATING IN AN ATTEMPT AT SUICIDE.

(Under the care of Dr. RUSSELL.)

Case 1.—The following case may not be uninteresting as an addition to two instances of factitious urticaria briefly related by Dr. Broadbent and Dr. Savage in the *British Medical Journal*, March 6 and 13:—It occurred in a woman of highly nervous temperament, aged 38. She had suffered from epileptic attacks with delirium for four months, and she assured me that the peculiar condition of skin to be noticed had only shown itself since the occurrence of fits. She also suffered from well-marked "spinal irritation," and it was whilst examining her spinal column, and drawing my finger over the spinous processes, that I was struck with the broad line of intense injection which followed. I then found that the pressure of pleats in the clothes was indicated by the production of similar vascularity, so that the lower part of the trunk, where the clothes were bound round the body, presented a curious patchy state of white and deep-red. Her skin had always been "tender," so that a fleabite would cause a blister. She has also had some tendency to bruising and to hæmorrhage from slight wounds. The abnormal state of her skin has now become so troublesome that she is obliged to wash her face without soap, and to use only tepid water; after washing, her face looks and feels for half an hour as if scalded. If she carries her baby she bears marks on her arm for an hour. On drawing a blunt instrument along her skin, sometimes instantly or in a few seconds, but generally in a minute and a half, the several follicles started into prominence. Where their development was rapidly effected, the appearance they presented, as they followed the course of the instrument, was very remarkable; they had the appearance of minute vesicles. They then appeared to spread themselves as the contraction of the cutaneous fibres extended from each as a centre, and in two minutes or two minutes and a half they were lost in a broad flat wheal, with perfectly straight, sharply-defined margins, a quarter of an inch broad, and of the thickness of thickest cardboard. At the same time a bright crimson blush extended itself in all directions; and when the wheal was fully formed it stood forward of a faint pinkish-white colour, surrounded by a bright crimson areola an inch in breadth. I drew the name Mary on the back in large letters, and it could be easily read at the end of a long room. She stated that an hour usually elapsed before the wheals subsided, and from our observation this was probably correct. The wheals were best seen on the chest, back, and face; less so on the forearm, and, as remarked by Dr. Gull, were not produced on the thenar and hypothenar eminences, where the cutaneous contractile fibres are few. I repeatedly measured the distances between two marked points upon the skin, but I did not find that they at all approached one another after the production of the wheals, whether the interspace were narrow and occupied by a single broad wheal, or whether it was broader. The interrupted current, primary and secondary, from Stöhrer's battery, whether feeble or powerful, did not produce any effect in raising wheals; nor did the persevering application of chloroform reduce them after they had been produced. A wheal was frozen by ether spray. After thawing, the wheal remained unchanged at first, but the entire surrounding district, previously bright red, became covered with elevated follicles, and by degrees the original wheal was lost in a broad wheal which spread from it, and finally occupied the entire space which had been frozen. Another district was frozen, and then scratched, after having thawed. Bright vascularity and goose-skin resulted, and in ten minutes the space was occupied by a wheal, the vascularity having previously subsided. The skin on one trial was found decidedly hyperæsthetic to the battery, and a hair drawn over it excited a "dither." On another occasion the hyperæsthesia was less marked. She had no itching in the skin, but a sense of heat attended the production of the congestion. My friend Dr. Denne was kind enough to examine the optic discs on two occasions. He found a varying tendency to anæmia, the arteries being small. The site of the anæmia was different at each examination. Dr. Gull notices that the susceptibility of the skin, which is the cause of these phenomena, may be hereditary. There was no evidence of it being so in my patient, though her sister had had some epileptic attacks, and her two children exhibited only a doubtful tendency to vascularity of the skin. I should add, that she had suffered from the spinal irritation for two years. I may just say that belladonna and bromide of potassium both failed in relieving this troublesome tendency.

It is curious to note the different ways in which a morbid sensibility of the skin may manifest itself in different individuals. My friend Dr. Denne has at this time a case of factitious urticaria in which a wheal alone is developed, without any congestion of the surrounding skin. Trousseau's cerebral maculæ in "cerebral fever" are well known. I produced the same phenomenon the other day in a case of deep jaundice with intense itching, but no wheals; and also in a patient suffering from a severe form of hypochondriasis, in whom profuse perspiration is a prominent symptom of her attacks. In a case of mild urticaria, when the itching was absent, scratching scarcely produced any result; and finally, in a child now in the Hospital, the subject of very chronic pemphigus, in whom the disappearance of the bullæ has left the skin covered with a dull mottling, slowly reproducing itself after pressure, a scratch with the nail left a white line, from which a belt of pure whiteness gradually spread itself on either side, just as the redness in the case detailed above, and subsided again in five minutes, leaving the original scratch very distinctly marked by its colourless line for a quarter of

an hour or twenty minutes. The other day, in a lady of nervous temperament about to submit to an operation, an experimental use of ether spray to a small patch in the arm was followed immediately after thawing by a bright red patch, as in my patient, covered with prominent follicles; but the whole speedily subsided without any wheal having been produced. It is, of course, needless to remark that the "spinal irritation" in my patient had no necessary connexion with the irritable state of the skin. Were the statement required, I could support it by the fact that, by a curious coincidence, I had at the same time in the Hospital a man suffering from epilepsy with delirium and from very severe spinal irritation—precisely the combination which existed in the preceding case—but no effect whatever resulted from scratching the skin.

Case 2.—I have thought the following graphic description worth transcribing, from the illustration it affords of the influence exerted by protracted intense anxiety upon mental and bodily health. It powerfully exemplifies a condition of complete self-absorption, resulting from the mind having been habitually turned in upon itself by some predominating impression, and the effect in destroying the capability for sleep and withdrawing nerve power from the full performance of the bodily functions:—A respectable man, aged 54, whose brother had been insane, but who had been himself free from any mental infirmity, had been exceedingly harassed for fifteen months by anxieties in business, occasioned by his having rendered himself responsible for goods procured for one of his principal employers, who, by dishonest practices, gradually fell into a state of bankruptcy. My patient got remittances from time to time, with great importunity, through other hands than those of his employer, whilst he still allowed himself to be persuaded to increase his liabilities. He was repeatedly reassured by fair promises, but three months ago he lost faith, and with loss of faith his mental health gave way. "He had always been a very particular man about his payments, had always paid his way, and had never been in no trouble at all." His sleep, which had been disturbed for the preceding twelve months, was now almost lost. He positively affirmed that for five weeks prior to his admission he had not slept at all, and his wife, who watched him closely, asserts that this hardly amounts to an exaggeration. If he fell asleep he "got to dream, and fought and choked so that it was necessary to awake him." "He was always in a lot of trouble in his sleep, and was perpetually falling down high places." He would get up and go downstairs, taking his pillow with him, and doze for a few minutes at a time with his head on the kitchen table. Then he saw phantoms; he told his wife that there was something on the mantel-piece with two faces and no body. He can't describe what he saw in his sleep, but he fervently hopes he shall never see the like again. With all this he grew strange and desponding by day, so much so as to be remarked by his neighbours. He preferred sitting for an hour at a time in a neighbour's shop, doing nothing and never speaking. Then he wandered about the roads, and one day he lost himself so completely in a place he was in the habit of passing daily, that he was obliged to apply to a passenger, who brought him home, when he told his wife that he had lived in Birmingham all these years, and now had to ask his way to his own house. He took little food. His wife tells me that for a week together he had hardly anything but a cup of tea and a bit of bread-and-butter in the morning. Then he would have a glass of something to drink, and that made him worse. He does not suppose he had a good meal for an entire month. He lost flesh rapidly. A month ago he lost nearly a stone weight in the course of a fortnight, but subsequently partially recovered his flesh. He had no dyspeptic symptoms, but suffered from occipital headache, and from so much vertigo that he fell more than once. At last his misery culminated in an attempt at self-destruction. He left his house at five o'clock one morning, and returned with his clothes saturated with rain; went upstairs, and, there is no doubt, mixed some powder containing strychnine with some egg and tea which his wife carried up to him. He has not the least recollection where he purchased the dose, nor does he even remember having done so; but soon afterwards he called up his wife, and wished her good-bye, telling her that he had taken poison. The symptoms of strychnism were sufficiently pronounced to indicate the truth of his assertion, though it was evident that a fatal dose had not been given. When brought into the Hospital he manifested so much excitement that the nurse believed he was about to have a fit. He did not attract any special notice for several days when I received the preceding history. He was then partially recovered, though he remained exceedingly restless, disturbed, and anxious. His pulse was 60. His pupils contracted to a pin's point, and refused to dilate. He was still entirely sleepless. A combination of chloral and bromide of potassium has succeeded in gradually restoring sleep and in effecting a surprising change in his whole demeanour. He has regained his cheerfulness, has lost his restlessness, and recovered his appetite, though to the present time, a fortnight after the beginning of amendment, his pupils are as minutely contracted as ever.

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Medical Times and Gazette.

SATURDAY, JULY 8, 1871.

THE GENERAL MEDICAL COUNCIL.

The Government has not followed the precedent set by the nomination of Mr. Teale and of Dr. Rumsey, and again returned a provincial Practitioner of eminence as one of the representatives of the Crown in the General Medical Council; but by nominating a leading London Physician has clearly given colour to the suspicion that they desire to narrow rather than to widen the representation of the Profession in the Council. Personally, Dr. Gull would be most warmly welcomed in any Professional assembly, and we have no doubt that his practical sagacity and wisdom will prove of the highest value in the deliberations of the Medical Parliament. But we cannot but feel that it is a pity the opportunity has been lost of returning some provincial general Practitioner of eminence. With the exception of one gentleman, the whole of the English members of the Council are in the ranks of pure Physicians and Surgeons. Practically, we believe there may be no harm in this, but yet we doubt the policy of such an arrangement. Hitherto it has been said, in answer to the outcry for direct representation, that the Crown representatives are really the representatives of the Profession. If this be so, it seems to us a mistake that one of them, at least, has not been selected from the ranks of the great mass of the Profession. In saying this we would disclaim in the strongest terms any feelings except those of high satisfaction in seeing Dr. Gull a member of the Medical Council. As we have said, his counsel and assistance there cannot fail to contribute greatly to the value of its decisions. But we would rather that a place which has been hitherto filled by a provincial Medical man should not have been occupied by a metropolitan Practitioner, even of the highest rank.

The opening address of the President was marked by a feeling of regret, in which, when we place ourselves in the position of the members of the Medical Council as they met in 1870, to discuss the Medical Act Amendment Bill of the Lord President of the Privy Council, we frankly own we share. That we regret the fate of the Lord President's Bill, when, after being altered and spoiled in the House of Lords, it was turned out of the

House of Commons, we utterly deny; but we shared the hopes which the Bill as originally drafted raised; and if, with some few alterations, which at the time we pointed out as necessary, it had been passed by both Houses of the Legislature, we entirely agree with Dr. Paget that "it would have removed the chief obstacles to the further improvement of the education of the Medical Profession, the real obstacles to the advancement of its social status, and the more general attainment of Professional excellence." The mischief, however, was done when the Lord President of the Privy Council, by the omission of Clause xviii., omitted everything that made the Bill valuable, and converted it into a measure for adding three more to the existing Medical qualifications in the United Kingdom. We, however, can sympathise with the President of the Council when he recounts the sacrifices of interest made by the representatives of the various Corporations and Licensing Bodies as they swelled the majority in the Council in favour of the Bill. We would only observe, from the opposition which the Bill met with in the House of Lords from various of the Licensing Bodies, it was clear that those Bodies did not share the self-sacrificing heroism of the majority of the Council in which they were represented.

In replying to the questions put by Dr. Acland and by Dr. Stokes as to the causes of the failure of the Bill of last year, and as to the chances of fresh legislation, the President of the Council added nothing to the information which we have heretofore given our readers on these subjects. The last point on which the Bill struck, and on which it went finally to pieces, was that of "direct representation" raised by the British Medical Association. Dr. Paget could only repeat Mr. Forster's statement that it was "the wish and anxiety of the Government" to bring in a new Medical Bill next year, but really, with the number of questions pressing upon them, they could not pledge themselves to do so; but they would threw no difficulties in the way of private members who might attempt the task. We are happy to believe that it would not be necessary for the Government to throw difficulties in the way of any member who might attempt, without the consent of the governing bodies of the Profession, to induce Parliament to alter its constitution.

A short debate on the Conjoint Board scheme took place incidentally on the first day of the session, which was chiefly remarkable on account of imputations thrown on the College of Surgeons of England by the new member nominated by the Crown, and indignantly repelled by the new member who represents that body. We cannot but think that this passage of arms, although it certainly enlivened the rather gloomy character of the first day's proceedings, was somewhat premature, inasmuch as we believe at present very sincere efforts are being made by all the Corporations to come to a mutual understanding on the subject, whatever Dr. Gull's experience of the last fifteen years may portend.

The report of the Committee of Professional Education, which, on the motion of Dr. Parkes, was received and entered on the minutes, is a document of great importance and value. It chronicles some very important improvements made in the system of education and examination by the Royal College of Physicians of London, the Royal College of Surgeons of England, and by the London Apothecaries' Society. These improvements—the requirement of the evidence of practical and clinical study by the production of proof on the part of the student of his having filled the offices of dresser and clinical clerk, and by submitting him to the test of practical examinations—are thus commented on by the Committee:—

"It is impossible to overrate the effect which the regulations of these great Licensing Bodies (to whom the majority of English students go for their licences) will have on Medical teaching in England. A great part of what was desired by the Committee of Education has been thus obtained, and it seems only just that the Council should fully recognise the improvements which have been made."

Some of the Scottish and Irish bodies have also instituted clinical and practical examinations; and the Committee adds:—

"It cannot be for a moment supposed that these alterations are made in the letter only, and are illusory. We believe they are what they profess to be, and believing this, we must allow that the Licensing Bodies have shown a determination to improve their curricula and examinations, and that in several cases both are now much more efficient than formerly."

With this praise, which all must allow to be high, the Committee proceed to point out that there are certain suggestions in the Education Report which have yet to be carried out, and they specify four:—First, the separation of the teaching of pharmacy and therapeutics; secondly, the lengthening of the period assigned to the study of midwifery; thirdly, they call attention to the non-adoption by several bodies of the recommendation that pathological anatomy shall be made a separate course; and, fourthly, the Committee strongly advise the enforcement of more regular class examinations. They state that the Society of Apothecaries of London has ordered that all students should produce evidence of having undergone these examinations, and they advise the Council to urge on all the Licensing Bodies to issue regulations requiring that written class examinations should be frequent. The Committee then pass on to the question of legislation and of conjoint boards. They remind the Council of their resolution of February 26, 1870, which decided in favour of the formation of a joint Examining Board in each division of the Kingdom, and they conclude by recommending the Council to again send a copy of that resolution to each Licensing Body, and that the Council should send a deputation to the Lord President of the Privy Council, to urge the desirability of such legislation as may carry out the object the Council proposed in passing the resolution of February, 1870, and which Lord De Grey had in view when he introduced his Medical Bill of 1870.

As the principal of these points will successively be discussed by the Council, we reserve our comment on them until next week; merely now observing that, whilst we hold Conjoint Examination Boards to be a most necessary reform, we cannot but think that fresh legislation is unnecessary as it will certainly be dangerous. The 19th clause of the Act of 1858 states that—"Any two or more of the Colleges and Bodies in the United Kingdom mentioned in schedule (A) to this Act may, with the sanction and *under the directions* of the General Council, unite or co-operate in conducting the examinations required for qualifications to be registered under this Act." We believe that all legal powers necessary for the formation of a Conjoint Board in each division of the kingdom are contained in this clause. Its only defect is that it is permissive, and we believe that it is the fault of the Licensing Bodies, or of the General Medical Council, or of both, if this great and needed reform be not at once inaugurated.

The proceedings of the first day terminated with a short debate on the present objectionable tabular form of returns made by the Army and Navy Examining Board, which, in a curious way, lumps together in an aggregate number the candidates who have not obtained a sufficient number of marks to obtain appointments, and the candidates who, although they have passed the necessary examinations, have not received appointments from the fact of there being no vacancies. The numbers have been quoted in Parliament and elsewhere as if all these persons had been rejected for incompetency, and thus an erroneous impression has been left on the public mind. A committee was appointed to consider and report on this subject. Here we must stop. Next week we shall continue our commentary on the proceedings of the session.

At Eccles and Patricroft a society for the relief of families afflicted with the prevailing epidemic—small-pox—has been formed.

THE ARMY BILL AND THE MEDICAL SERVICE.

The proposed transfer of the power of appointment of officers of militia from Lords-Lieutenant of counties to the Crown will afford the opportunity of carrying out one of the many suggestions for the acceleration of promotion in the Medical Department of the Army. During the interchange which will be constantly taking place between the active and the reserve portions of the army, it will be impossible to keep up a continuous Medical history of individual soldiers and, *à fortiori*, of the whole army, unless a uniform system of observation and record be maintained from the first enlistment till the final discharge of each soldier. As a matter of State Medicine it would be a very grave error of omission if the constantly accumulating facts respecting the health and sanitary condition of the army, which under the present system are so fully recorded in the annual reports of the Army Medical Department, should be permitted to lose any of their value from the incomplete character which they would assume if they referred only to the period passed on service in the regular army. In order to effect this necessary continuity of record, to train the young soldier in the habits conducive to individual and aggregate health, and to enable the old soldier on joining the home army to continue in the practice of such habits, not only for his own advantage, but as an example to the younger men, it is evident that a trained staff of Medical officers, whose whole time can be devoted to the work, must form a very important part of the militia and reserve forces of the future. It is also evident that the material for such a staff, both in the administrative and executive ranks, already exists among the present Medical officers of the army on full or half-pay; and that the introduction of a system of optional retirement from the general service at twenty years, instead of twenty-five, on £1 per diem, so frequently advocated by ourselves and our contemporaries, and again advanced by "X. Y. Z," conditional on enrolment in the Medical Reserve, with liability to being called out for active service at home or abroad, would place at the disposal of the authorities a number of experienced military Surgeons, from whom selections could be made for service in the militia. Officers so employed should, of course, have their retired pay brought up to the full-pay rates of their respective ranks in the Militia Medical Service.

There would thus be established two distinct currents of relief to the now nearly stagnant stream of promotion in the Medical service of the army, composed respectively of Medical officers retiring completely on the £1 per diem, taking the remote chance of being called on again to serve, and of those partially retiring into the Medical service of the militia.

If to some such scheme as we have slightly sketched were added a provision for compulsory retirement from the inspectorial ranks after, say, fifteen years, or on reaching 60 years of age—the period at which retirement from the administrative ranks of the control department becomes compulsory—we should, as demonstrated by "X. Y. Z.," have the Medical Department of the Army composed of men of shorter service, on rates of pay so much lower as to counterbalance the expenditure caused by the retirement of Surgeons of twenty years' service on £1 per diem.

THE PRESSURE MEAT-PRESERVING PROCESS.

We have recently drawn attention to the fact that, in the preparation of extract of meat by Liebig's process, the stimulating and not the nutritive parts are preserved. A process has been recently patented by Mr. T. F. Henley, an engineer of great experience, the aim of which is to extract, by simple pressure, a large portion of the juice from the fibres of meat, and to leave the latter in an available condition as food if preserved simply by moderate desiccation. Thus, there is a twofold product—meat-juice and meat dried. The meat-juice, rich in extractive matters, and containing over 50 per cent. of albumen, is evaporated in vacuum pans, so as to retain its solubility, flavour, and unchanged alimentary process. The method of preservation relied on is the oldest and the safest—that of abstracting moisture at low temperatures—and the mechanical means adopted do away with the use of water, much heat, and the coagulation and separation of albumineid matters, which, in Liebig's process, lead to unnecessary expense and wastefulness.

The apparatus used by Mr. Henley consists in powerful presses and evaporating pans. There is no complication in the process, and it does not call for scientific experts to superintend its application. This may be seen by anyone visiting the experimental laboratory at 3, Great Winchester-street-buildings, where, under Professor Wanklyn's directions, some interesting researches are being prosecuted on the subject. Prange's Estancia Company have undertaken to afford all facilities for the meat-juice and pressed meat on their estate in Uruguay; and, anticipating a successful solution of the long vexed question of meat preservation, they have for some years been rearing and fattening cattle, so as to take advantage of any opportunities that might be afforded them.

Meat-preserving establishments are starting up in all directions in the River Plate, Australia, and other cheap-meat-producing countries. Annual reports have recently been very favourable, and an ever-increasing amount of capital is sure to be directed towards providing the food we so much need. It is not one, but many, processes whereby a great result is to be obtained, and meat supplied in various forms suited to different tastes. Mr. Henley has the merit of introducing a cheap plan, which does away with tins and other expensive methods of packing, and gives us raw produce fit for the cook, without foreign admixtures. It may be regarded as a great advance in the art of economising waste material; for what can be more wasteful than turning a bullock (all but its flesh-juice) into manure? and by Henley's process not a particle of nutriment is lost. Mr. Wanklyn reports that the meat-fibre, after having lost the amount of fluid essential to its complete preservation, is twice as rich as the best salt meat. In salting, however, not only is juice extracted, but a large amount of salt is added to the meat, and to this we have to attribute scurvy when sailors are fed on it exclusively.

The time has arrived for a supreme effort to feed the people of Western Europe. France is still rich, but not in meat; and whereas the French have taken more readily than ourselves to using Liebig's extract, they will greedily utilise anything tending to give them a cheap and abundant meal. The *pot au feu* must be kept boiling; and how much more will they appreciate it with a savoury meat-juice than a stimulating *entremet*, the cost of which places it beyond the reach of many.

THE SMALL-POX EPIDEMIC.

Judging from the mortuary tables, small-pox in the metropolis would be regarded as having been nearly stationary for the last two or three weeks. The deaths registered last week were 235, against 232 the week before. There was an increase in the deaths of small-pox patients in the North districts and a considerable increase in the East, but there was a diminution in all the rest. The numbers were: West districts 23, North 66, Central 11, East 60, and South 75. But it is certain that the epidemic is attacking fewer people now than it did three or four weeks ago. Although the returns made by the Health Officers are necessarily very imperfect, yet, so far as they go (and they represent the progress of the disease in certain parishes in all parts of London), the reduction in the number of fresh cases last week is shown to be very marked. A few weeks of steady summer weather would make a still more decided impression. The City Small-pox Hospital has been closed. We are sorry to observe that the epidemic continues to spread in Sunderland, where last week 54 deaths were

registered, equivalent to an annual death-rate of 29 per 1000 persons living. This death-rate from small-pox was last week equal to that from all causes in Edinburgh. At Newcastle, 25 deaths from small-pox were recorded, equivalent to an annual death-rate of 10 per 1000. The disease continues to abate in Liverpool, but it has broken out with epidemic proportions in Manchester and Salford, where 23 deaths were registered as due to this cause last week.

It is curious and interesting to notice how the epidemic breaks out in succession in different towns; and when it has come to an end it will be an important subject for comment. At about this time last year it was raging with violence in Paris, and we were congratulating ourselves, although tremblingly, upon our own exemption. There were not wanting those who attributed this to our superior vaccination arrangements, and who took the opportunity of throwing discredit upon the practice of heifer vaccination so largely resorted to in that city. But by the time that Paris was invested by the German armies the epidemic there had undergone a marked decline, and within a very few weeks an outbreak happened in London which, taken altogether in its duration and severity, has certainly been no less remarkable. It broke out in Liverpool about the same time, but, while for a period more severe than with us here, it has subsided much more quickly. It attained its maximum there in the fourth week of February; but in London the maximum deaths were recorded in the first week of May. As it was declining in Liverpool it broke out in Southampton—namely, in the last weeks of March—and about the same time we began to hear of a severe epidemic at Grimsby and a threatened outbreak in Newcastle. A little latter—namely, about the time of the highest small-pox mortality in London—the neighbouring town of Sunderland became seriously invaded. In this town the rapidity of the progress of the epidemic has been unparalleled by any town of which the Registrar-General gives us information. During the last weeks of April he recorded 2 deaths per week from small-pox; but from the first week in May onwards the weekly deaths recorded have been 4, 9, 9, 12, 18, 26, 46, 43, and 54. And now we hear of 23 deaths in Manchester and Salford, against 6, 17, 9, and 11 in the four previous weeks. And all this might have been prevented! but warnings and threatenings fall upon deaf ears and preoccupied minds. There is yet time granted to our other large towns and cities; to Hull, only separated from Grimsby by a few miles of an arm of the sea; to the seething manufacturing population of Leeds and Bradford, Birmingham and Sheffield; and to the maritime population of Bristol and Portsmouth. Should it reach these towns, as it probably will before long, and find them still unprepared by an universal vaccination of the infants and the revaccination of all the young persons and adults, even the outbreak in Sunderland may be thrown into the shade by the severity of the disaster that would follow.

THE WEEK.

TOPICS OF THE DAY.

An important, although at present a partial step only, has been taken to the formation of a Conjoint Examination Board for England. We understand that a scheme has been all but arranged between the Royal Colleges of Surgeons and Physicians for the formation of a Conjoint Board, the basis of which is to vest the nomination of examiners in a committee chosen by the four Universities and two Colleges. It will be seen that the Society of Apothecaries has not as yet given in its adhesion to this scheme. It is clear, however, that no satisfactory Conjoint Board of Examiners can be formed without that Society being represented in it. But it is understood that there are legal questions relating to the Act of 1815 at present under the consideration of counsel, which must be decided before the desired combination can be effected.

We regret much to hear that Dr. Hyde Salter has been obliged by indisposition to resign the Physiciancy to Charing-cross Hospital. Dr. Silver, the senior Assistant-Physician, will be promoted, and there will be a vacancy for an Assistant-Physician.

The last phase of the case of Edward Cunningham Craig against Miss Jex Blake seems to have ended somewhat disastrously for that lady. A bill of exceptions was taken by Miss Jex Blake's counsel to the decision of the judge who tried the case (Lord Mure), as to the admissibility of certain portions of evidence, and to his ruling in addressing the jury. The Court unanimously disallowed all the exceptions, and gave Mr. Craig expenses.

Professor Agassiz has started on an expedition to do for the Pacific what Dr. Carpenter has been accomplishing for the seas of Europe. He has had a coast-survey steamer placed at his control, and he will examine by deep-sea soundings the waters of the Pacific Ocean along the coast of North America. It may be expected that not only natural history, but geology, will be advanced by this expedition, and by the practised acumen and powers of research of the great Transatlantic naturalist.

A report that Weymouth was devastated by small-pox, which appeared in the *Times*, has been contradicted by the Mayor of the town, who, quoting Dr. W. J. Smith, states that, "in the three weeks ending last Thursday, only seven deaths from small-pox occurred, all of unvaccinated persons." The question, however, which people would like to have answered before going to Weymouth, is, What number of cases of small-pox do these deaths represent?

One William Jack, of 11, Macclesfield-street North, City-road, was fined last week, at the Clerkenwell Police-court, in the sum of £3, for "unlawfully selling poisonous substances by retail, without a cover bearing the name of the article, the word 'Poison,' and the name and address of the seller." The summons was taken in consequence of a case of suicide investigated by Dr. Lankester. Might not this law be put in force against herbalists and other quacks who vend poisonous plants and drugs?

The *Court Circular* of July 3 contains an account of the investiture by the Queen of Inspector-General Sir David Dumbreck, M.D., and Director-General of the Medical Department of the Navy Sir Alexander Armstrong, M.D., with the insignia of Knights Commanders of the Bath.

ELECTION OF MEMBERS OF COUNCIL AT THE ROYAL COLLEGE OF SURGEONS.

The annual election of Fellows into the Council of the Royal College of Surgeons took place on Thursday, the 6th inst., in the library of the College. There were four vacancies to be filled up, caused by the retirement, in the order prescribed by the charter, of Messrs. Edward Cock, the late President of the College; George Busk and Frederick Le Gros Clark, who offered themselves for re-election; and of Mr. Lane, who declined being put in nomination for re-election; these gentlemen are all members of the Court of Examiners. The other candidates, who offered themselves for the first time, were—Mr. T. Spencer Wells, of the Samaritan Hospital; and Messrs. George Critchett, of the London Hospital, and Barnard W. Holt, of the Westminster Hospital, Fellows by examination.

Punctually to the time appointed—viz., two o'clock—Sir William Fergusson, Bart., the President of the College, accompanied by Messrs. Busk and Hancock, the Vice-Presidents, entered the large library where the elections are conducted, and shortly addressed the Fellows, pointing out the mode of conducting the election, which is by ballot. On the present occasion a novelty was introduced: boxes or compartments were fitted up, where the voting papers could be filled up in secresy, without attracting the attention of a curious or inquisitive

person, on the plan recently adopted for taking the votes for members of the School Board. The voting then commenced, and was not brought to a close until five o'clock, when the President invited any Fellow so inclined to check the account taken, as usual, by Mr. Stone. On the conclusion of this ceremony, the President declared that the choice of the Fellows had fallen on Messrs. Wells, Critchett, Le Gros Clark, and Busk.

The numbers for each candidate were as follows, viz. :—

Mr. Wells.	. .	131, including	4 plumpers.
Mr. Critchett	. .	130, „	7 „
Mr. Clark.	. .	127, „	9 „
Mr. Busk .	. .	117, „	1 „
Mr. Holt .	. .	104, „	7 „
Mr. Cock .	. .	74, „	10 „

In the evening a large party assembled at the annual festival held at the Albion Tavern, under the chairmanship of Mr. Carden, of Worcester. We defer until next week an account of the proceedings.

UNIVERSITY COLLEGE AND HOSPITAL.

Mr. Berkeley Hill and Mr. Christopher Heath have been promoted Surgeons to University College Hospital, and Dr. F. T. Roberts has been appointed Assistant Teacher of Clinical Medicine. A scheme for the distribution of a Sharpey Physiological Scholarship in the College has been adopted. It is expected that the annual value of the scholarship will be about £100.

THE NEW POOR-LAW SANITARY INSPECTORS.

We understand that Surgeon-Major A. D. Home, C.B., V.C., of the Army Medical Service, has been nominated for one of the recently established Sanitary Inspectorships under the Poor-law Board. Mr. Home has for some time past, with the sanction of the military authorities, been employed probationally in his new office, to enable him to complete his period of twenty-five years' service in the army. His permanent appointment has, we believe, been somewhat expedited by the fact of his having again come near the top of the roster for foreign service. We are glad to see that the first selection to such appointments has fallen upon an army Medical officer of distinguished service and acknowledged abilities, and we have no doubt that this recognition of the claims of their brother officer to fill such a responsible and lucrative post will create much pleasure among the Medical officers of the army, and encourage many of them to persevere hopefully in pursuit of the necessary qualifications, for the acquirement of which their duties both at home and abroad afford peculiar advantages.

THE MORTALITY AT BUENOS AYRES.

The latest advices from Buenos Ayres put us in possession of some ghastly statistics of the late yellow fever plague. During January, February, March, April, and May the epidemic raged, and during the nine days from April 3 to 12, 3985 are said to have died out of a population of about 70,000. On the 11th the Board of Health ordered all who could do so to leave the city. During the visitation 23,000 appeared to have perished. From a list of poor patients attended on behalf of the British Legation, it appears that during an interval of a month, out of a total of 67, 50 were cured, and 17 died. These deaths were all males of the average age of 35 years. Out of 4000 victims whose ages have been ascertained, 1800 died before the age of 30, 1600 between the age of 30 and 50, and 600 between 50 and 90. That is, out of every 20, 9 died under 30, 8 between 30 and 50, and 3 between 50 and 90. Considering the relative ages of the population, the greatest mortality had been amongst those who had passed the prime of life. This mortality had been the greatest amongst the males, especially between the ages of 30 and 50.

DR. GULL AND THE GENERAL MEDICAL COUNCIL.

Dr. Gull has been appointed to succeed Mr. Rumsey as a Government member of the General Medical Council.

WOMEN DOCTORS IN RUSSIA.

The Emperor of Russia is favourable to the admission of women to the Medical classes of the University of Helsingfors. He has given public intimation of this fact. It is understood that he was memorialised on the subject by his Finnish subjects.

ARMY MEDICAL DEPARTMENT.

It has been decided that the office of Director-General shall for the future be tenable for seven years. This decision has been arrived at in consequence of the results of a return laid before Parliament showing the dates at which the Medical officers employed in the Director-General's department entered on their duties.

INSANITY IN FRANCE.

The number of cases of mental alienation produced by the excesses of the Commune, amounts, according to official report, to more than 500. The victims are, for the most part, mothers, wives, sisters, or intended brides, who saw the objects of their affection violently torn from them, either on a suspicion of reaction or on a charge of non-compliance with the military law. Very few of the latter category have returned, for the Federal chiefs always took care to place them at the points most exposed to danger.

INDIAN MEDICAL SERVICE.

We learn by the last *Homeward Mail* that the following commissions have been granted by the Secretary of State to the subscribers to the Madras Medical Fund, and their families, with effect from April 1, 1870 :—Annuity Branch : A grant equal to the value of ten large annuities. The grant, from 1870, of five large annuities, and one small annuity every year, and one small extra annuity every other year. Charity Branch : An increase of 23 per cent. per annum, on the rates of pension which existed in 1868, to widows and to daughters over age, and of 28 per cent. per annum, on the same rates, to sons and daughters under age. The pensions of widows and of daughters over age were increased by the Service 5 per cent. from January 1, 1869. All the pensions from the Charity Branch will therefore be 28 per cent. higher, from April 1, 1870, than they were in 1868.

THE SOPHIA NURSES.

Under this title it is proposed to found an institution at St. John's House, North-end-road, Fulham. In consequence of the immense mortality from "baby-farming" it was considered desirable to establish a home for infants, where they would be carefully nursed and fed. The nursery would be to some extent self-supporting. It was deemed advisable to charge such of the mothers as are able to pay a certain sum for the maintenance of their children, so as to avoid the risk of giving any encouragement to immorality. A complete staff has been formed, and an influential list of patrons and patronesses obtained. Dr. W. S. Playfair is Consulting-Physician, and Sir W. Fergusson is Consulting-Surgeon. The following is extracted from the prospectus :—

"A large and commodious house, in a healthy situation in the suburbs of London, has been secured ; a suitable staff has been engaged, and arrangements have been made which will ensure the bringing up of the children according to the strictest hygienic laws. As a safeguard against the abuse of this charity, only the *first* children of unmarried women will be received, and after a proper investigation of the case. Although the institution will be, to a certain extent, self-supporting, it is evident that the expenditure will greatly exceed the receipts, and, therefore, contributions in aid of this scheme will be absolutely necessary. In addition to the good results hoped

for as regards the children, it is intended to assist the mothers to obtain suitable employment, and thus aid them to regain the respectable positions from which they have fallen."

NEW HOSPITAL FOR WOMEN, BIRMINGHAM.

On Tuesday the Election Committee met for the purpose of appointing four acting Honorary Surgeons. There were eleven candidates for the four vacancies, and all the gentlemen, with one exception, were local Practitioners, and of good standing in the town. The election was conducted by means of voting-papers, and resulted in the return of the following gentlemen:—Mr. J. C. Bracy, Mr. Thomas Savage, Mr. Ross Jordan, and Mr. Lawson Tait. It would be impossible for the authorities of this young Hospital to have a more able staff of Medical officers. The appointments have given general satisfaction.

ROYAL COLLEGE OF SURGEONS.

In his annual report to the Museum Committee, which has just been published, Professor Flower, F.R.S., the indefatigable Conservator, states that the additions to the pathological series rather exceed those of last year, and adds that the recent modification of the staff will be the means of effecting in future a still larger and more systematic annual development of this series than has hitherto been the case. Dr. Thurnam, of the Wilts County Asylum, has recently presented a collection of nearly fifty specimens, many of which are of considerable interest.

One of the principal novelties in the Osteological Collection is the skull of a very large sturgeon, in which all the cartilaginous portions—constituting, in fact, the greater part—which cannot be preserved by any known method in a condition suitable for ready examination, have been carefully modelled in *soft wood*, and the ossified portions fitted to them in their natural relations. The form of the brain cavity, and the position, course, and size of the various nerve-apertures excavated through the great central mass of cartilage of which the skull is composed, have been carefully reproduced by the ingenuity of Mr. James Flower, the articulator to the College.

The skeleton of the horse which has stood for many years in the Eastern Museum, and so often and erroneously stated to be that of "Eclipse," has been replaced by a finer and more characteristic specimen, being that of the celebrated racer "Orlando," who died at the Royal Paddocks, Bushey-park, at the great age of 28, and whose remains were obtained for the Museum with the permission of her Majesty, through the kind intervention of Mr. Sudlow Roots, of Kingston, a Fellow of the College. Another noteworthy skeleton is that of the little hippopotamus born in the Zoological Gardens in February last, and which lived but two days. It excited some interest, as being the first of these animals produced in this country, and affords an exceedingly good skeleton, valuable as shewing the condition of development of the bones at that early period of life.

Mr. Crowther, of Hobart Town, a valuable contributor to the Museum on previous occasions, has sent home the skeleton of a fine sea leopard, and several skeletons and fœtuses in spirits of cetaceous animals.

The art of preparing mounted skeletons is one which has made great advances in recent years. Not only is much more care bestowed than was generally the case in former times, on preserving all the smaller bones, as the sesamoids, hyoids, etc., and in retaining them in their proper relation to the more conspicuous elements of the skeleton, but numerous mechanical arrangements have been invented, by which the various surfaces of the bones can be examined separately without interfering with the remainder of the skeleton.

The continuation of the revision of the great Hunterian series of specimens of physiology and comparative anatomy by Professor Flower has resulted in some fine and interesting additions to the Museum. The whole of the division appropriated to the nervous system and organs of the senses, which was formerly in an extremelyunsatisfactory condition, has now been put into perfect order. A number of brains which had been accumulating for several years have now been catalogued, and form a very instructive and important series; 206 of the old preparations have been remounted during the year, and 119 new ones added.

The Dermatological Collection has been arranged in systematic order. A descriptive catalogue of 513 models, drawings, etc., has been completed and published by Professor Wilson at his sole expense, and presented by him to the College.

Catalogues of the Teratological and Calculi Collections are in progress. The Collection of Surgical Instruments and Appliances is also making progress. Amongst the contributors to this novel addition to the Museum are—Messrs. Swan, Erasmus Wilson, Birkett, Holden, Taylor, Kempthorne, White Cooper, Barker, C. Edwards, Bond, and Mrs. Hatton. Amongst the contributors to the general collection are—The Royal Institution, the Zoological Society, Sir William Fergusson, Messrs. Cock, J. E. Adams, Gay, Spencer Wells, Hilton, Lee, Quain, Partridge, Hancock, Curling, Hutchinson, Hickman, Sclater; Bennett, of Sydney; Professor Gervais, of Paris; Professor Peters, of Berlin, etc.

These additions are now displayed in the Theatre of the College, where they will remain for a few days for the inspection of the Members preparatory to being dispersed throughout the Museum.

FROM ABROAD.—THE AMERICAN MEDICAL ASSOCIATION AND MEDICAL WOMEN—DISCUSSION ON CHLORAL—LYONS *versus* NANCY.

The American Medical Association has recently held its twenty-second annual meeting at San Francisco, and, considering the vast distance, the attendance was numerous. Dr. Stout, of that city, delivering the "Address of Welcome," forcibly demonstrated the rapidity of progress by exhibiting a map of New York city bearing the date 1776. "Through the centre of the city could be traced the road to Boston—a road which then occupied as much attention as the great trans-continental railroad over which the visitors had just passed." We are not yet in possession of sufficient details of the meeting to judge of the amount of scientific work performed, but it is evident from the report which we have perused in the *New York Medical Record* that the consideration of the "woman question" occupied a good deal of the attention of the Association, and gave rise to some lively discussions. The *élite* of the Profession in the United States seems as little disposed to admit the reasonableness of the claims advanced as with ourselves. It is true that Professor Alfred Stillé, the President of the Association, is Consulting Physician to the Philadelphia Medical College, but one of the speakers observed that he would never have been elected to the presidency if he had held that office when he was proposed. Indeed, he has put his colleagues into a position of some difficulty; for, according to the ethical code of the Association, no member can consult with any person so attached to a Female Medical College. The Philadelphia members of the Association, as on former occasions, have made a push to get the claims of the ladies recognised (although the President himself thought the question had better stand over), but with very ill success. The first battle arose on the question whether Dr. Thomas, who had been sent as a delegate from the Women's Medical College, should be received as a member, it being admitted that, were his claim allowed, it would be optional in future for women's colleges to send lady representatives. A warm discussion ensued, in which the usual arguments, *pro* and *con*, upon the Medical women question (with which we are now so familiar) were reproduced. A sensible suggestion by Dr. Johnson, of Missouri, "that women should organise their own associations and manage their own affairs," was loudly cheered, and will certainly meet with many adherents in this country, who, while not objecting to their doctorial proclivities if they see fit to indulge in them, enter-

tain a strong aversion to their thrusting themselves into male organisations. The question was disposed of on this occasion by being "indefinitely postponed." Another branch of it was next day opened by Dr. Atlee, of Philadelphia, who proposed the resolution, "That the American Medical Association acknowledges the right of its members to meet in consultation the graduates and teachers of women's Medical colleges, provided that the code of ethics of the Association be observed." As we just observed, by the present laws of the Association none of the members of the Association can consult with its own president. A somewhat hasty discussion followed, as the members were eager to partake of a pleasant excursion in the bay, and when they met again in the evening they ordered the resolution to be laid on the table, to await the decision of some future meeting.

It will be thus seen that our Transatlantic colleagues have more ballast, and less of the go-ahead propensity, than we sometimes give them credit for, the Medical Association exercising an influence, in the absence of official bodies of authority, very much more considerable than any similar body could do here. The Association is also laudably strict with regard to homœopathy. It has displaced a Dr. Martin from the chairmanship of the Vaccine Committee because he sent a communication to a homœopathic journal, and has referred the question of his expulsion from the Association to the Committee on Ethics—declining to refer the case of the "erring disciple" to the Massachusetts Medical Society, to which he belongs, on the ground that the regular Practitioners in that State are far too much addicted to consort with homœopaths to be trusted with its decision. As a statistical fact, it was stated that in the United States there are about 60,000 licensed Practitioners, of which number 3000 are homœopaths. The Association agreed to co-operate in raising the proposed memorial to Sir James Simpson, "as an evidence of their appreciation of the deceased."

At a recent meeting of the New York Academy of Medicine, several of the members gave some account of the results of their employment of chloral. Dr. Foster said that he had given as much as ninety grains in a case of delirium tremens. Dr. Jenkins was in the habit of giving only small doses, and had found seven and a half grains produce twelve hours' sleep in an habitual opium-eater, five grains afterwards securing quiet sleep. Dr. Hart reported a case of neuralgia in which one dose of twenty grains caused death in thirty minutes. Dr. Peaslee stated that he had been in the daily habit of administering it, and had observed no ill-effects result. His dose at first is generally from ten to fifteen grains. In an habitual opium-eater chloral was substituted, sleep being procured by thirty grains at night, and the opium reduced by a fourth. Dr. Adams mentioned a case of hay-asthma cured by a single dose of chloral. Dr. Caro referred to a case of strangulated hernia in which chloral seemed to have exerted an almost magical effect after chloroform and tobacco had failed. He had also used it, in doses of fifteen or twenty grains, with happy results, in cases of rigidity of the os uteri. Dr. Pooley said that he had ordered thirty grains every night for a patient who had a weak and irritable heart, without any ill-result being produced. He was much struck with the efficacy of small doses, and while at first he used to give sixty grains or more, his ordinary dose was now thirty, in tolu. He had noticed intermittent pulse under its use, but not to any alarming extent. In some cases his attention had been called to itching of the eyelids. Dr. Bell observed that chloral acts much better when combined with bromide of potassium. In delirium tremens he gives fifteen grains of chloral every three hours, stopping after the third dose. He has never met with any ill-effect from its use; and it has this peculiarity: that if it is to act well, it will do so quickly, as within twenty minutes of the first dose. Dr. Peyers spoke of its advantageous use in a case of enlarged heart and angina pectoris. Dr. Van Kleek reminded the members of the Academy that Dr. Squibb, who is an excellent authority, had announced that chloral became decomposed when suspended in syrup.

The thirty Deputies of the North-Eastern Departments having presented their Bill for the erection of an University at Nancy—or, rather, for adding a Medical Faculty to the already existing University—the Profession at Lyons are bestirring themselves in order to get a Medical Faculty established in their city, which, indeed, they demanded long before the present crisis had arrived. They point out that the resources of Nancy for supplying the wants of a Medical school are utterly inadequate, since it, together with the towns surrounding it, possesses a more scanty population whence patients can be drawn than does even Montpellier, which, partly on this account, has proved notoriously defective as a Medical institution. Lyons, on the contrary, the second city in France, offers facilities even rivalling for clinical purposes Paris itself, nearly 25,000 patients being annually treated in well-organised Hospital establishments. Another argument is derived from the events of the late war. Every Frenchman is, at all events at present, convinced that war will sooner or later be renewed, but there is by no means the same confidence felt as heretofore that this must necessarily be a successful one. At all events, on its occurrence, Nancy, and even Paris, will again have to run the risk of siege and investment, and consequent stoppage of all educational communication with the rest of France for perhaps an indefinite period. By the late siege, and especially by the subsequent insurrection, all Medical studies were brought to a temporary end in Paris, and Strasburg being now in alien hands, no other centre of instruction existed; and it is said that the interests of many of the students have been most seriously compromised by this state of things, Montpellier being utterly unable to supply the deficiencies thus suddenly created.

For this, among other reasons, M. de Ranse, in the *Gazette Médicale*, advocates the formation of several centres of Medical instruction. In the first place, however, he admits the claim of Nancy to be converted into a complete State university, liberally endowed, in order to enable it to enter worthily into competition with that of Strasburg, for which Prince Bismarck has announced that a far more liberal provision will be made than when it was a French institution. This will be more easily accomplished, as it seems a legacy of 5,000,000 frs. has been left for public purposes to the city of Nancy, which is desirous of devoting it in this manner. Lyons, it seems, although so much wealthier a city, is at present in far from a flourishing financial position; but, believing this only to be a temporary condition, M. de Ranse suggests that there should be established in it a "free university," independent of State control, and in imitation of similar establishments, which have proved so successful at Brussels, Liége, and Louvain, in Belgium. The example, once set, would doubtless soon be followed in such large cities as Marseilles, Bordeaux, Lille, etc. These institutions, embracing the entire circle of human knowledge, and officered by examiners independent of the teaching body, would enter into a wholesome competition with the State universities and with each other, and might eventually give rise to something like the scientific emulation which has proved so advantageous in the German universities, and certainly would prevent the higher education being brought to a standstill by any of the revolutions which yet may be in store for Paris.

PARLIAMENTARY.—LUNATICS (SCOTLAND) BILL—LIFE ASSURANCE—REGISTRATION OF BIRTHS AND DEATHS—THE PHARMACY BILL—THE VACCINATION AMENDMENT BILL—LUNATICS (IRELAND).

In the House of Lords on Thursday, June 29, on the Lunatics (Scotland) Bill being reported,

The Marquis of Huntley proposed an amendment excluding from its operation chartered and licensed asylums, but he withdrew this on its being conceded by the Earl of Morley that

criminal lunatics should not be sent to such asylums without the consent of their managers.

The Life Assurance Companies Act Amendment Bill was reported.

In the House of Commons,

Mr. Campbell, for Dr. Playfair, asked the Secretary of State for the Home Department whether it was the intention of her Majesty's Government to introduce a Bill early next session to make the registration of births and deaths compulsory, and to improve the modes of granting certificates of death.

Mr. Bruce said he was in communication with the Registrar-General on the subject, and he found it was in his opinion desirable that several improvements of the law should be made with respect to the registration of births and deaths. Under those circumstances, he proposed to introduce a Bill with that object next session.

On Monday, in the House of Lords,

The Lunatics (Scotland) Bill was read a third time and passed.

In the House of Commons,

In answer to Mr. T. Cave,

Mr. W. E. Forster said the Government intended to proceed with the Pharmacy Bill during the present session, its object being mainly to insure that the first clause of the Pharmacy Act, passed in 1868, which said there should be regulations for the keeping, dispensing, and selling of poisons, should be complied with. He was aware that several petitions had been presented against the Bill from chemists and druggists throughout the country, but he hoped to be allowed to take the second reading on Thursday, with a view afterwards to go into committee *pro formâ*, and reprint the Bill with amendments, which he believed would meet the wishes of many persons connected with the trade.

In answer to Sir Massey Lopes,

Mr. W. E. Forster said he could not admit that the working of the Vaccination Act, 1867, would make a large increase in the expenditure of the poor-law guardians. As to the recommendation of the Select Committee—namely, "that a considerable proportion of the expenses of working the Act should be contributed from moneys to be voted by Parliament"—it had not been included in the Vaccination Bill, which was merely a Bill for the practical amendment of the Act to secure better provisions against the increase of small-pox. The recommendations of the Committee would require the serious attention of the Government; but the question of these expenses could not be considered by itself, it must be considered along with other subjects, as between local rates and imperial taxation.

Sir D. Corrigan obtained leave to bring in a Bill to amend the law relating to dangerous lunatics and dangerous idiots in Ireland, and to make more effectual provision for the superannuation of the officers of district lunatic asylums in Ireland.

The Bill was introduced and read a first time.

The Paris Assistance Publique.—After the revolution of September, 1870, the post of Director-General was abolished, on the supposition that his autocratic and initiative power was too great, while the control of the Conseil de Surveillance, being a mere advising body, was quite insufficient. Moreover, on this Conseil, consisting of some twenty members, only one Hospital Surgeon, one Physician, and one Professor of the Faculty had a seat. By a decree of September, 1870, all initiative power in regard to measures concerning Hospital administration was confided to a Conseil Supérieur, in which the Medical element was sufficiently represented. The execution of the measures resolved upon devolved upon a general agent, who thus occupied an intermediate position between the Conseil and the Hospital *personnel*. So matters continued during the siege; but it seems there was a constant struggle for the increase of the powers of the agency, and an endeavour to restore the old state of things. And, in fact, a decree of February, 1871, conferred on the general agent the powers formerly possessed by the Director-General, and deprived the Conseil of its initiative power. Finally, by a decree issued on June 25, the modifications of 1870 and 1871 are suspended, and the *status quo* restored. The Medical officers have formed themselves into a Hospital Medico-Chirurgical Society, with the view of impressing upon the Government the importance of giving a due share of authority to the Medical element of the Conseil.

A Hint.—A reception-house has been opened in Greenock for persons in whose homes fever may have broken out, and who may themselves have escaped contagion.

MEETING OF THE GENERAL MEDICAL COUNCIL.

Held at 32, Soho-square.

First Day.—Tuesday, July 4.

The fourteenth session of the Council was opened on Tuesday last at Soho-square, at 2 p.m., the President, Dr. Paget, in the chair. In addition to the President, there were present:—Dr. Bennett, Dr. Acland, Dr. Humphry, Dr. Embleton, Dr. Storrar, Dr. Alexander Wood, Dr. Andrew Wood, Dr. Fleming, Dr. Macrobin, Dr. Thomson, Dr. A. Smith, Mr. Hargrave, Dr. Leet, Dr. Apjohn, Sir D. Corrigan, Bart., Dr. Sharpey, Dr. Parkes, Dr. Quain, Dr. Christison, Dr. Stokes, and Dr. Francis Hawkins (Registrar). Mr. Cooper was prevented by indisposition from attending at the first meeting of the session.

Mr. Quain was formally introduced to the Council as member for the Royal College of Surgeons, *vice* Mr. Cæsar Hawkins, and Dr. Gull as member for the Crown, *vice* Dr. Rumsey.

The President delivered his annual address, which was as follows:—On the two former occasions on which I had the honour of opening a session of the Council, I did it in the fewest words. I spared your time, knowing its value, and could well spare it, because the business of the session was plainly and unmistakably before us, and any introductory remarks of mine would have been at least superfluous. On the present occasion the circumstances are different, and in one respect peculiar. What has happened since our last meeting might seem to demand comment—perhaps lengthened comment; but I will not detain you long. We meet for business, not for talk, except such talk as may be in itself business. But one word for two friends of ours who have retired from the Council since our last meeting. We should be ungrateful if we omitted to acknowledge what we owe to Mr. Cæsar Hawkins—to his diligence in business, his conscientious accuracy, on which we could always rely, and the clear judgment and honourable spirit which he brought to the consideration of every question; and to Dr. Rumsey it is due that we should remember his great and willing sacrifice of time and labour while aiding us in the large and complicated subject of State Medicine, of which he is so perfect a master. The services rendered by these two gentlemen to the Medical Council were, in fact, rendered to the general public. The public may overlook them, or fail duly to acknowledge them—we cannot, and ought not. Our last meeting was wholly occupied in considering the Medical Amendment Bill of the Lord President of the Council. I regret that it was necessary to withdraw it. I believe that it would have accomplished a vast amount of good. I believe that it would have removed the chief obstacles to the further improvement of the education of the Medical Profession, the real obstacles to the advancement of its social status, and the more general attainment of Professional excellence. It would thus have conferred great, very great, benefits on the public. I therefore regret its loss. But I have satisfaction in remembering that this Council, after long and careful consideration, expressed an approval of it, and a wish that it might speedily become law. It has been sometimes said, or insinuated, that this Council has more regard for the interests of the Medical Corporations and Universities than it has for the interests of the public. If there be any candid man who thinks thus, I would ask his attention to the vote of the Council on the Bill of Lord De Grey. That Bill proposed in its chief and leading provision to deprive all the Universities and Medical Corporations of their ancient privilege of granting licences to practise Medicine—a privilege which, in the case of the Corporations, is the most important they possess. The Council, early in their discussion of the Bill, expressed a doubt of the necessity or expediency of this sacrifice of ancient privileges—a sacrifice which might, not improbably, be injurious to all the Corporations, and might even endanger the existence of some of them; yet, after careful consideration of the whole Bill, this Council approved of it by a majority of fifteen to three. Perfect unanimity, of course, could not be expected on a measure involving so great a number and variety of details; but to any person who finds fault with the constitution of the Council because he believes it to represent unduly the interests of the Corporations, I would commend that vote of fifteen to three as a fact worthy of consideration. It is not necessary for me to enter upon the causes which led to the withdrawal of Lord De Grey's Bill.

Neither is it necessary for me to discuss the merits of the two Medical Bills which were introduced into the House of Commons by private members in the present Session. They have been withdrawn; yet they have not been without use, if their discussion has diffused more knowledge on a subject of which the general public is so profoundly ignorant, and many members, even, of the Medical Profession, are still so imperfectly informed. Among the business of our present session will be an inquiry into the conduct of a qualified Medical Practitioner. We shall have to inquire, under the provisions of the 29th section of the Medical Act, whether he has been guilty of infamous conduct in a Professional respect. The charge against him is that he has authorised another person to affix his name to false certificates of death—false in this respect: that they stated him to have been in Professional attendance on the deceased—which, it is said, was contrary to the fact. Charges of this kind have been made against two Practitioners. The complaints were made originally to the Registrar-General of Deaths and the Secretary of State for the Home Department, and by them the complaints were referred to this Council. In accordance with the standing orders, a preliminary inquiry has been made by the English Branch Council. In one of the cases it was found that the evidence was scanty and the circumstances such as, in the opinion of our solicitor and that of the Branch Council, would not fairly warrant a charge of infamous Professional conduct. In the other case it was thought proper that the charge, and the evidence in support of it, should be submitted to your judgment. I have mentioned this case, not merely because it is the first in which charges of this kind have been brought under your notice, but because I desire your opinion as to whether one part of the procedure—namely, our deliberation on the merits of the case—should be public or private. Of course, the hearing of the case will be public; the decision will be public; but it has appeared to us worth consideration whether there should be a short intervening time, in which our deliberations should be private. The deliberations of juries are private; so are those of magistrates at sessions, and those of judges when they sit in a body; in all these cases the deliberations are private, though the decisions are given publicly. Whatever differences of opinion there may be in the Council on this suggestion of mine, I am satisfied we shall all be agreed on taking that course which appears to us the most likely to lead to a just conclusion—just towards the person whose conduct is impugned, and just towards the Profession and the public, who would have good reason to blame us if we shrank from exercising aright the powers conferred on us by the Medical Act.

Committees were then appointed on the following subjects:—Business, Finance, and the Registration of Medical Students, and the Returns from the Bodies in Schedule (A) of Professional Examinations and their Results.

The next matter on the programme was the following statements from the Medical Department of the Army and the Military Department of the India Office:—

Statement of the Degrees, Diplomas, and Licences of the Candidates for Commissions in the Medical Department of the Army, who, in February, 1871, presented themselves for Examination, showing the number that passed, and did not pass, distinguishing the Qualifications, both Medical and Surgical, under the Heads of the several Licensing Bodies.

Names of Licensing Bodies.	Qualifications.					
	Number of Qualifications.			Deficient in		
	Total.	Number passed.	Number failed.	Anatomy.	Surgery.	Medicine.
Royal Coll. of Physicians, London . Licentiates	3	3	...	...	...	...
Do. Surgeons, England . Members	12	12	...	...	...	...
Society of Apothecaries, London . Licentiates	8	8	...	...	...	...
Royal Coll. of Physicians, Edinburgh Do.	10	9	1	1	1	...
Do. Surgeons, Edinburgh Do.	10	9	1	1	1	...
K. & Q. Coll. of Physicians, Ireland Do.	14	11	3	2	3	1
Royal Coll. of Surgeons, Ireland . Do.	18	15	3	2	3	1
Apothecaries' Hall, Dublin . . Do.	3	3	...	...	...	...
University of Edinburgh . . M.B.	2	2	...	...	...	...
Do. Glasgow . . . M.B.	2	2	...	...	...	...
Do. do. . . . M.Ch.	2	2	...	...	...	...
Do. Aberdeen . . M.B.	4	4	...	...	...	...
Do. do. . . . M.Ch.	4	4	...	...	...	...
Queen's University, Ireland . . M.D.	8	8	...	...	...	...
Do. do. . . . M.Ch.	6	6	...	...	...	...
University of Dublin . . . M.B.	5	5	...	...	...	...
Do. do. . . . M.Ch.	3	3	...	...	...	...
Do. do. . . Lic. in Med.	1	1	...	...	...	...
Do. do. . . Lic. in Surg.	1	1	...	...	...	...
Total . . .	116	108	8	6	8	2

Remarks.—Candidates—Successful, 36; unsuccessful, 21: total, 57. Of the unsuccessful, 17 would have been accepted had there been vacancies for them.

Statement of the Degrees, Diplomas, and Licences of the Candidates for Commissions in the Medical Department of the Indian Army, who, in February, 1870, presented themselves for Examination, showing the number that passed, and did not pass, distinguishing the Qualifications, both Medical and Surgical, under the Heads of the several Licensing Bodies.

Names of Licensing Bodies.	Qualifications.					
	Number of Qualifications.			Deficient in		
	Total.	Number passed.	Number failed.	Medicine.	Anatomy, Operative Surgery & Surgery.	
Royal Coll. of Surgeons, England. Members	2	1	1	...	...	
Do. do. Ireland . Licentiates	9	3	6	...	...	
College of Physicians, Ireland . Do.	2	1	1	...	} *	
King and Queen's College of Physicians, Ireland . . . . Do.	6	1	5	1	}	
Queen's Univ., Ireland . Licentiates	1	1	...	...	...	
Doctor in Med.	2	2	...	...	...	
University of Dublin . Bachelor of Med.	1	...	1	...	} †	
Master in Surgery	1	...	1	...	}	
Do. Aberdeen Members	2	1	1	...	...	
Master in Surgery	2	1	1	...	...	
Do. Glasgow Bachelor in Med.	1	1	...	...	...	
Master in Surgery	1	1	...	...	...	
Do. Edinburgh Bachelor of Med.	4	3	1	...	...	
Master in Surgery	4	3	1	...	...	
Royal Coll. of Physicians, Edin. . Licentiates	5	1	4	...	...	
Do. Surgeons, do. . Do.	4	1	3	...	...	
Total . . .	47	21	26	1	...	

* 2 deficient in all subjects. † 1 deficient in all subjects.

Remarks.—Candidates—Successful, 10; failed, 13: total, 23. Diplomas and Degrees—Successful, 21; failed, 26: total, 47. N.B.—Of the 13 candidates returned as unsuccessful, 9 were qualified, but were not accepted, as only 10 appointments were made.

The President pointed out that the manner in which these tables were drawn up was calculated to mislead, and had misled, the public with reference to the number of candidates who failed. In the first table occurred this statement in small type:—"Of the unsuccessful, seventeen would have been accepted had there been vacancies for them;" and in the second, "N.B.—Of the thirteen candidates returned as unsuccessful, nine were qualified, but were not accepted, as only ten appointments were made." So that it was not that they had failed to satisfy the examiners, but to obtain commissions—which was an entirely different thing.

Dr. Parkes asked that the debate upon this point might be adjourned until Dr. Alexander Wood returned to the council-room, as that gentleman had taken an active part in bringing the matter unsuccessfully under the notice of the Army and Navy Medical Board.

Sir Dominic Corrigan then moved, and Dr. Andrew Wood seconded, the following resolution:—"That the returns from the Medical Departments of the Army and of the Indian Army be entered on the minutes."

It was carried unanimously.

The Bill of Last Session.

Dr. Acland: When we broke up last session we parted with the expectation that we should meet again with further powers and fresh duties, and a Committee of the Council was appointed to confer with the Lord President on the subject of the Bill then about to be introduced. The result was the passing of the Bill through the House of Lords. It, however, was afterwards dropped, and it therefore seemed to me expedient, for our own sakes and for the sake of the public, to put a formal question to the President, in order that he might officially tell us if he have the knowledge how it was that the legislation which we expected has fallen through. I would only add, before putting the formal question, that we are now, as I understand, *in statu quo*—that is to say, after a great deal of deliberation which, in one form or another, has gone through two or three sessions, we have to begin again to carry on our work with the same powers as before, and with an utter uncertainty as to whether we are to have new powers or new duties assigned to us. Dr. Acland concluded by putting the formal question of which he had given notice.

The President: Gentlemen, I have no special or official information on the subject, but, as most of you know, an answer to this question was included in some remarks made by the Vice-President of the Council, Mr. Forster, in the debate on the two Medical Bills on June 14. I have sent for a copy of Hansard, but Hansard for that night it is an impossibility to

obtain. However, I will read to you the words which have been reported — and I have no reason to doubt their accuracy—which Mr. Foster used on that occasion,—"That legislation had failed last year; because, although the Bill which had been introduced into the House of Lords had been most carefully considered, it had been thought desirable when that Bill came down from that House to add to the questions they were then attempting to settle, another question—namely, the constitution of the Medical Council, and it was then too late in the session to deal with that subject." Of course, I have the same information that most other persons have as to some of the details or causes of the withdrawal of that Bill. I do not know that I should enlighten many of you by mentioning them, but I should wish to give as complete an answer as I can to the question that has been put. It was known that the Bill was opposed, that some of the Medical Corporations had petitioned against it, and that it was energetically opposed by a Committee of the British Medical Association. It was known, also, quite well that the session was drawing to a close. I believe that not much more than a fortnight of it remained, and that little time which did remain was shortened unexpectedly by one or two debates incidental to the outbreak of the great war between France and Germany; and, therefore, it was quite clear that the time which would be occupied by any serious opposition or obstruction to the Bill would necessarily be fatal to it. Some members of the House of Commons, in concert with and helping the Committee of the British Medical Association, expressed their intention to oppose it, and they insisted upon its being enacted that a certain proportion of the Council should be elected by the direct votes of all registered Medical Practitioners, stating that they would obstruct the Bill in every way if that were not granted either immediately or by promise of the Government for the following year. The Government objected to that, because it was obvious, from the divided state of opinion, that discussion would be necessary, and there was no time for discussion. Under these circumstances, Mr. Forster offered, on the part of the Government, that, if the Bill passed unobstructed, should any private members introduce another Bill in the following session—that is, this session of 1871—to enact this direct representation, the Government would assent to the Bill being referred to a fairly constituted select committee, so as to consider the question without prejudice. This offer of the Government was refused by some members of the House acting for the Committee of the British Medical Association; and, as there was no time to discuss it, Mr. Forster was under the necessity of withdrawing it. That is all I know of the matter, and I believe it is substantially what took place.

Dr. Stokes then asked the President, pursuant to notice, "if he were aware whether the Government proposes to bring forward the same or any other Medical Bill either in this or any subsequent session, and, if so, whether he would inform the Council."

The President said his information upon this latter question was precisely similar to that which he possessed with regard to the first. In the same debate from which he had before quoted, Mr. Forster gave a statement on the very point, and, consequently, he had not thought it proper or advisable to ask the Government more directly what their intentions were. The Vice-President of the Council in that debate had said, "from the number of questions pressing on the Government for legislation, he could not pledge them to bring in a Bill next year, but it was their wish and anxiety to do so. If they were unable to deal with the subject next year, and if any private member, such as his honourable friend the member for Salisbury, or any other, took up the subject, no obstacle would be thrown in the way of the fullest consideration of it by the House; and if it was thought desirable, the Bill might be referred to a committee upstairs."

List of Examining Bodies.

The next subject on the agenda was the list of Examining Bodies, whose examinations fulfil the conditions of the Medical Council. It was the same as last year, with one addition:—"The Examiners for Commissions in the Military and Naval Services of the United Kingdom: Certificate to include all the subjects required by the General Medical Council."

Report of Committee on Professional Education.

Dr. Parkes then moved that the report of the Committee of the Council on Professional Education be received and entered on the minutes.

The motion was seconded by Dr. Storrar, and carried unanimously.

Report of the Committee of the Council on Professional Education.

The Report of the Committee of 1869 on Professional Education, and the replies to the letter of the Chairman from Teachers on Medical Education, were forwarded to the Licensing Bodies, and answers were received from them in 1870.

All the answers did not arrive in time to be presented at the meetings of Council in 1870, and accordingly an interim report only was then laid before the Council (Minutes, vol. viii., p. 11). By a resolution of Council (Minutes, vol. viii., p. 105), the Committee on Education was re-appointed, and directed to report at a future meeting of the Council.

Subsequently, replies to the first Education Report having been received from all the Licensing Bodies, they were printed and distributed, last autumn, to the Members of Council, and are contained in the Appendix to the 8th volume of the Minutes of the Meetings of the Council.

The probability that an Act to regulate Medical education would be passed in 1870, rendered it inexpedient to discuss last year many of the suggestions contained in the Education Report, and in the replies sent in by the Licensing Bodies, for if the Medical Bill of 1870 had been passed, it would have necessitated a revision of the whole subject of Medical education and examination, and would have rendered any previous decisions null and void.

During the last two years very important alterations have been made in the system of education and examination by some of the Licensing Bodies, and several of the suggestions of the Education Committee have been met.

The Royal College of Physicians of London, by a rule passed in April, 1871, requires from every candidate for its Licence, evidence that he has discharged the duties of clinical clerk, and of dresser, for periods of three months respectively, and thus one important recommendation of the Education Report has been carried out.

The Royal College of Surgeons of England, on the reception of the report, appointed a Committee to consider it, and eventually determined to act on the opinion of their Court of Examiners of December 16, 1869, that "every part of the knowledge included in, or accessory to, the education of candidates for the diplomas of the College ought to be taught and learnt practically." The College has, therefore, introduced into its curriculum clauses which ensure practical instruction in chemistry, pharmacy, general anatomy, and physiology and Surgery, and has ordered that every candidate at an early period of his Hospital attendance shall be individually engaged at least twice a week in the observation and examination of patients, under the direction of a recognised teacher during not less than three months—this is for the purpose of enabling him fully to profit by the Hospital instruction; and in addition to this, every candidate is ordered, as formerly, to be also a dresser, or to have charge of patients equivalent to the work of a dresser, for six months, and is also to attend demonstrations in the post-mortem rooms of a recognised Hospital during the whole period of Surgical Hospital practice. And to ensure that these regulations shall be carried out, the College has now instituted for the diploma of Membership (as it had previously done for its Fellowship) a practical clinical Surgical examination in addition to the examination in bandaging, etc., formerly instituted.

The Society of Apothecaries of London has also made some important changes. Since June, 1870, all candidates have been required to produce evidence of having served the office of clinical clerk for at least six weeks, and of having been examined at the class examinations conducted by the teachers of the respective subjects. The clinical examinations which were instituted by the Society on June 13, 1867, have been made an integral and invariable portion of the final examination. Students attending for their first or primary Professional examination have been required, since December, 1870, to undergo an examination on Medical regional anatomy on the healthy subject; and in various other parts of the examinations increased practical work has been demanded.

It is impossible to overrate the effect which the regulations of these great Licensing Bodies (to whom the majority of English students go for their licences) will have on Medical teaching in England. A great part of what was desired by the Committee of Education has been thus obtained, and it seems only just that the Council should fully recognise the improvements which have been made.

The four English Universities have made no change in their systems of examination, which were considered satisfactory by the Council.

In Scotland, the Royal College of Physicians of Edinburgh now requires all candidates for the licence, without exception, to undergo a clinical examination in Medicine in the Royal Infirmary of Edinburgh. Previous to July, 1869, students only underwent this test.

The Royal College of Surgeons of Edinburgh had previously to July, 1869, instituted practical clinical examinations, which are carried on in a Surgical Hospital, and they have since made no change in their regulations.

The Faculty of Physicians and Surgeons of Glasgow has not essentially altered the mode of conducting the examinations, but in some points the examination has been more systematised, especially as regards the clinical part. All candidates, whether previously qualified or not, are subjected to an examination at the bedside, both in Medicine and Surgery. The written part of the examination has also been extended.

The University of Edinburgh has made no alteration.

The University of Aberdeen has annulled the regulation which exempted the candidates who obtained the highest place in the written examination from being examined orally, and, in accordance with the wish of the visitors from the Medical Council, enforces the oral examination on all.

The University of Glasgow has made the clinical examination more efficient, but, otherwise, has made no change.

The University of St. Andrews has made no alteration.

In Ireland, the University of Dublin has improved the clinical examination, and now systematically enforces it on all candidates. The previous Medical examination—viz., in physics, chemistry, botany, Materia Medica, and descriptive anatomy—is now compulsory.

The Queen's University in Ireland has instituted clinical examinations in Medicine and Surgery in the final examination for the M.D. and Master in Surgery.

The Royal College of Surgeons of Ireland has introduced a practical examination in bandaging, etc., and the Council is now engaged in the consideration of how best to introduce clinical examinations in Surgery.

The King's and Queen's College of Physicians has instituted a clinical examination, which is carried on in the wards of an Hospital for the second or final part of the examination.

The Apothecaries' Hall of Ireland has extended the period of examination from two to six days, so as to more practically test the candidates' knowledge, and they have instituted a clinical examination of patients, which is enforced on all candidates.

It cannot be doubted from the previous statements, which have been

drawn from official communications received from each Licensing Body, that great progress has been made in the path indicated in the various reports of the visitors of the Medical Council, and of the Committee on Education.

It cannot be for a moment supposed that these alterations are made in the letter only, and are illusory. We believe that they are what they profess to be, and, believing this, we must allow that the Licensing Bodies have shown a determination to improve their curricula and examinations, and that in several cases both are now much more efficient than formerly.

There are, however, some suggestions in the Education Report which have not yet been carried out, and on which it seems desirable the Council should express an opinion, while there are other suggestions which it will be better to keep in abeyance until the Medical Legislation, which cannot long be delayed, has been concluded.

Of the former kind, there are some of considerable importance :—

1. The separation of the teaching of pharmacy and therapeutics, the former being made an early, and the latter a late, course in the curriculum.

The opinion of the Committee on Education, which included Dr. Christison and Dr. Aquilla Smith, and the views of all the best teachers of Materia Medica, were in favour of this separation. But some licensing bodies consider that therapeutics should not form the subject of a separate course of study, but should be considered an essential part of the courses on practical Medicine and Surgery.

It must be admitted to be so; but still there is a necessity for special instruction, and without it, it may be confidently asserted that the progress in therapeutics will be slow.

It seems desirable that a definite opinion should be come to on this point, and we propose to move a resolution to take the sense of the Council on this matter.

So, also, it will be for consideration how far practical instruction in drugs and pharmaceutical preparations might not be substituted for formal lectures. For the last two sessions a plan of the kind has been carried on by Dr. Harvey, at Aberdeen, and is said to have been highly successful.

2. The length of time assigned to midwifery in most of the present curricula is too short, and the Committee on Education recommended that one entire winter session should be assigned to this subject, and that the amount of practical instruction should be increased. This opinion was shared by all the experienced teachers in midwifery, whose replies are given in the appendix to the Education Report of 1869.

We therefore advise that the Council shall recommend that the systematic lectures on midwifery shall be given in the third or fourth winter course, and that the candidates shall be required to attend not less than twenty labours, in addition to practical instruction in the diseases of women.

3. The recommendation that pathological anatomy shall be made a separate course has not been carried out, but several of the licensing bodies have endeavoured to meet it by requiring a certificate of attendance, and of practical instruction, in the dead-house.

We think that a certain number of systematic lectures should be added to this practical instruction.

4. The Committee on Education strongly advised the enforcement of more regular class examinations. The Society of Apothecaries of London has ordered that all Students shall produce evidence of having undergone these examinations, and we advise the Council to urge on all the Licensing Bodies to issue regulations requiring that written class examinations shall be frequent.

The other points raised in the Education Report, and which we advise should not be discussed at present, are—the length of the sessions, the method of teaching chemistry, and the application of chemistry to physiology and pathology, the teaching of minute anatomy, and the definition of the areas of instruction and of examination.

The new curricula, especially that of the College of Surgeons of England, will gradually introduce changes in some of these matters, and the probability of Parliamentary legislation on Medical examinations renders it now inexpedient to deal with the remaining questions.

The allusion to possible legislation leads us to the last part of the Report of the Education Committee of 1869. The Council will doubtless remember that the Committee strongly recommended the formation of conjoint examining boards, so as to reduce the numbers of licences to practice from nineteen to three, and to make each licence a qualification in both Medicine and Surgery; that the Council authorised circulars to the licensing bodies in this sense; and that in the autumn of 1869 various conferences took place between some of the Licensing Bodies, and replies were received from many of them favourable to the proposed combinations. Subsequently, the action of the Government in introducing a Bill to carry out the same object suspended all negotiations of the kind.

The withdrawal of the Government measure, in consequence of the opposition raised on another ground, has replaced matters on the old basis.

It might indeed be argued that the willingness of the Licensing Bodies to improve their examinations, and the fact that they really have improved them, renders it less necessary to revive the plan of a single uniform licence to practise for each division of the kingdom. But a moment's reflection will show that the proposal is still necessary. The independent licences and their several examinations still remain as numerous as ever. The competition between different bodies, therefore, still exists, and must produce its fruits, and the inequality of the examinations in different parts of the kingdom remains.

Any Licensing Body raising its standard beyond a certain point will certainly drive some students, who otherwise would take its licence, to more lenient bodies. The rigour of an examination may, then, exist only on paper, and all the efforts of the Council may be spent in making ropes out of sand.

The only effectual remedy, unless the Council is prepared to be constantly inspecting and visiting the examinations of the Licensing Bodies on a more systematic plan than heretofore, is to urge on the system of a single portal for each division of the kingdom.

The discussions of the last two years have shown that there are no insurmountable difficulties. In England the three great Licensing Bodies have, at the instance of the Royal College of Physicians, almost arranged a scheme, and it seems to require only a little more aid to form a single Board for England. In the other divisions of the kingdom enough has been done to show that combination can be carried out if men will earnestly try for it.

It is impossible that the Government, after introducing a Bill, should let the matter entirely drop. If it did so, the present session has shown that there are persons ready to take the matter up; and if the Licensing Bodies do not themselves carry out a measure of the kind, they will give great discouragement to those who desire to see them continue the representatives and guides of the Profession, but who consider the thorough examination of those on whose skill the lives of men are to depend must be provided for at all costs.

The Council can hardly, without inconsistency, leave the resolution of February 26, 1870, to remain a dead letter.

In this resolution, which was carried by 15 votes against 3, the Council decided that it was of opinion a joint Examining Board should be formed in each division of the kingdom. Subsequently, also, the Council passed a resolution approving of the principles of the Medical Bill which was at that time being prepared by Lord De Grey.

Accordingly, we beg to recommend that the Council shall address a letter to each Licensing Body, transmitting a copy of the resolution of February 26, 1870, and urging that arrangements for the formation of the Boards shall be undertaken without delay, so that the Council may be in a position to communicate them before the close of the year to the Government.

And we advise, in addition, that the Council shall authorise the Executive Committee to seek an interview with the Lord President of the Council, and to urge upon him the desirability of such Medical Legislation in the session of 1872 as may carry out the object the Council proposed in passing the resolution of February, 187 , and which Lord De Grey had in view when he introduced his Medical Bill of 1870.

(Signed) E. A. Parkes, Chairman.

Dr. Parkes, in accordance with the desire of several members of the Council, read the resolutions which it was his intention to move in reference to the above report, in order that the Council might have them brought under their attention before the debate took place.

The Conjoint Board.

At this stage of the proceedings a long discussion occurred, in consequence of some members of the Council, who stated that they had to attend a meeting of the College of Physicians on the subject of the Conjoint Board on the morrow, at four o'clock, requesting that the consideration of these important resolutions of Dr. Parkes might be postponed until they could be present at the Council.

Dr. A. Smith objected to such a precedent being established. It was the first duty of every member of the Council to attend to the business of the session, and the consideration of important subjects should not be put off to meet the convenience of gentlemen who wished to absent themselves.

Dr. Bennett pointed out that the discussion upon the Conjoint Board had a material bearing upon one of the resolutions, and it would be more convenient that the debate should take place after the meeting at the College of Physicians.

Dr. Gull said he was acquainted with the business which was about to take place at the University of London, and also at the College of Physicians, and he thought it very doubtful whether any action to be taken by those bodies to-morrow would facilitate the discussion of this matter by the Council. The subject of conjoint examinations had been under consideration for the last fifteen years, and he felt almost certain that to-morrow things would be left just as they were before. The College of Surgeons either is, or fancies it is, tied up to a certain line of action—opposed in all true principles (in his humble opinion) to any useful conjoint examination. The scheme was proposed last year, and accepted, but rejected by the College of Surgeons as not practicable. He quite agreed that nothing should interfere with the deliberations of the Medical Council; and although his duty might call him to the Senate of the University of London, he would be content with having attended the Committee, which would report to the Senate his views. He hoped Dr. Storrar, Dr. Quain, Dr. Sharpey, and Dr. Parkes would feel with him upon the subject, that they would be better serving the purpose which they all had in view by sitting at the Council, and assisting to determine upon its course of action; thus giving it as great prominence and force as possible, instead of trusting to the College of Surgeons, who, no doubt, had very good intentions upon the matter, but very little more. They always had had good intentions, from the time when he was junior censor of the College of Physicians, fifteen years ago. But the fact was, really, the College of Surgeons either could not or would not agree to the measure. Under these circumstances, he hoped that the Council would not delay their deliberations in view of what was going to take place out of doors.

Mr. Quain was sorry, on the first occasion of addressing the Council, to be obliged in some degree to play the part of advocate for the body he represented; but he felt bound to protest against some of the statements made by Dr. Gull. The College of Surgeons did not deserve the character which he had given it. He (Mr. Quain) believed that both the College of Surgeons and the College of Physicians were now in a very fair way to come to an agreement on the matter of the Conjoint Boards. He was not at liberty to say more, things being now in progress; but he desired individually, and for the Council of the College of Surgeons, to repudiate as unjust the observations which had fallen from Dr. Gull.

Mr. Humphry thought it a serious matter that the business

of the Council should be interfered with, and that from want of subjects they might have to adjourn at 4 o'clock. In any view it was only the last resolution upon which the meetings out of doors could have any bearing. He would, therefore, propose that, at all events, the Council should be at liberty to proceed with the debate on the others.

This course was ultimately agreed to.

Removal of Names from the Register.

Mr. Quain moved, and Mr. Hargrave seconded, a motion for the removal of the name of Edwin Lowe from the Register, a conviction having been obtained against him for felony. The motion was carried unanimously.

The Registrar then read a certificate of the conviction of Frederick Henry Morris, of Swindon, a Member of the College of Surgeons, of a misdemeanour, and it was proposed to strike his name off the Register.

Mr. Quain, however, pointed out that there had been no proper identification of the man convicted with the man whose name was on the Register. After some discussion the matter was referred to the Solicitor to ascertain this point before putting in force the powers of the Council.

Another Petition from Dr. Pattison.

The Registrar read a petition addressed to the Council by Dr. John Pattison, praying that his name might be reinstated on the Medical Register, with letters from C. H. Frewen, Esq. The petition set forth the qualifications of Dr. Pattison; alleged that, from having followed a special mode of treatment, and practising under a foreign diploma, he could not disguise from himself that a certain prejudice would be created against him in the minds of the Council; that he, therefore, desired to be heard by counsel; but this was refused. It admitted the impropriety of the letter written to Mr. Frewen, but urged in extenuation—first, that it was written under a natural irritation caused by Mr. Frewen's refusal to pay fees justly due; and, secondly, that it was merely an idle threat which he never intended to carry out, and never did carry out, when his book on cancer was actually published. It urged that for the offence committed he has been sufficiently punished, and that he is advised that, under all the circumstances, he has not been guilty of misconduct within the meaning of the Medical Act; and it humbly prayed that his name may be reinstated on the Register. A characteristic letter of Mr. Frewen's accompanied this; and, after a short discussion, in which the President, Dr. Bennett, Dr. Stokes, Dr. Apjohn, Dr. A. Smith, Dr. Fleming, and Dr. Andrew Wood took part,

The Registrar was directed to reply to Dr. Pattison's communication by enclosing the resolution of the Council moved by Dr. Stokes, and seconded by Dr. A. Smith—"That, having heard the petition that Dr. Pattison be replaced on the Register, and, having fully considered the said petition, the Council see no reason for altering the decision at which they formerly arrived after full and careful consideration of the whole case."

A communication from Dr. Edwards-Crisp, addressed to the President, and enclosing resolutions of a meeting of Medical Practitioners on the subject of the Medical Bill of last session, was then read before the Council, and the Registrar was ordered to acknowledge the receipt thereof.

Colonial Certificates.

Dr. Storrar produced a letter from the Board of Public Examiners, Cape of Good Hope, praying that the Medical Council will be pleased to recognise their third-class certificate in literature and science, which has been assimilated to the Matriculation Examination of the London University, as fulfilling the conditions of the Council with respect to preliminary examination. He said if the Council had any curiosity to see them he was prepared to produce the questions put to candidates in January last.

Dr. Bennett: Have you the answers? (Laughter.)

Dr. Storrar: I hope the President will not think it desirable that any of us should furnish them. (Laughter.)

On the motion of Dr. Bennett, seconded by Dr. Alexander Woon, this matter was referred to a committee.

The Registrar then read a letter addressed to the President and Medical Council, from the Honorary Secretaries of the Sydney Infirmary and Dispensary, requesting advice on the subject of founding a Medical School at Sydney.

Dr. Storrar suggested that this should be referred to a committee composed of representatives of the three kingdoms.

Several other members of the Council felt grave doubts whether it was within the province of their body to give advice as to founding schools.

After some further discussion, Dr. Fleming moved, and Dr. Humphry seconded, the following resolution:—"That a letter be addressed to the Honorary Secretaries of the Sydney Infirmary and Dispensary, in reply to their request for advice on the subject of founding a Medical School in Sydney, informing them that it is not within the province of the Medical Council to give advice on the subject; but that the Council will forward to them copies of their reports on Medical education."

The Army and Navy Medical Returns.

Dr. Alexander Wood, having now returned to the council-room, reopened the discussion upon this subject. He said that he with others had been deputed by the Medical Council some years ago to bring this matter under the notice of the Army and Navy Board. They had explained the difficulty which the Council felt about the tables, and the incorrect ideas which got abroad in consequence of the way in which they were drawn up. They were informed that, with all their anxiety to do what would be satisfactory to the Medical Council, the authorities of the Army and Navy Board could not alter the form of the tables. There was no doubt that in Parliament and elsewhere they produced a very bad and very unfair effect in connexion with the public appreciation of Medical education. The apparent rejection of a number of candidates brought great discredit on the Examining Bodies who sent them up, and altogether he trusted that, before they appeared again on the Minutes of the Council, a committee would be appointed to consider the whole subject, for he felt sure the Council would not wish to continue to publish returns which were such an evident source of injustice. He therefore moved that these returns be referred to a committee to report upon them at a subsequent meeting of the Council. He was empowered to state that Sir D. Corrigan would have supported the motion had he not been obliged to go to his duties in another place.

Dr. Apjohn seconded the resolution. He could not believe that the Medical authorities would object to a proper modification in the form of the tables, in some way which should not lead to mystification or false impression.

Dr. Alexander Wood confirmed Dr. Parkes in his statement that the authorities of the Army and Navy Board, while in the most courteous manner acknowledging that they saw the difficulty by which the Council was met, yet stated that there were reasons of the most imperative character why they could not alter the form of the tables.

Mr. Quain hoped nothing would be said or done which would prevent the Council receiving these most valuable returns from the Army and Navy Board.

Dr. Alexander Woon said nothing would be done by the Committee without the Council.

Mr. Quain said he felt sure the Army and Navy Board would not be unwilling to correct what was evidently an inaccurate statement in the returns; and he pointed out two respects in which they were not only obscure but absolutely incorrect; the columns, instead of being headed "successful" or "unsuccessful," or passed" and "failed," should be headed "passed" and "not passed;" then the fact of some out of the number passed obtaining commissions would not throw a slur upon those who had succeeded in satisfying the examiners, although they might not obtain commissions because there were not enough for all.

Dr. Parkes quoted from vol. iv., page 6, a letter from the Army Medical Department, dated February 21, 1865, in which the following passage occurred:—"You must bear in mind the Medical Department, and I presume the Naval Department also, will not give [the tables] in any form in which the unsuccessful candidates can be identified."

Dr. Andrew Wood pointed out that, in their anxiety to avoid casting a stigma upon unsuccessful candidates, the Army Board seemed to forget that they were casting a stigma by their present system—an undeserved and unfair stigma—upon the Examining Bodies, who were constantly having the fact of these supposed rejections of their students by the Government cast in their teeth.

Dr. Alexander Wood pointed out another matter in which the tables worked very unfairly—namely, that the Examining Body whose diplomas the unsuccessful candidates possessed was often rendered accountable for deficiency in preliminary education, over which they had had no control.

Dr. Parkes said this no longer existed, as the Board did not exact preliminary subjects.

Dr. Alexander Wood said, with all his respect for Dr. Parkes and his colleagues, the Army Examining Board was not in any way entitled (and he believed he was expressing Dr. Parkes's own opinion in saying this) to be used as a test of the other Examining Bodies of the country. He quoted an instance in which a student had presented himself for examination

before the Board which he (Dr. Wood) represented, and was rejected; but a few days afterwards the secretary received a letter from him, saying that he had gone to the Army and Navy Medical Board, had passed their examination, and now hoped there would be no objection to give him his diploma.

Mr. QUAIN said it was quite clear the Council ought not to publish any returns which were calculated to convey an erroneous impression. On the other hand, they were much indebted to the Army and Navy Medical Board for supplying them with those documents, but it was the duty of the Council to publish them in such a way that they could not be mistaken by the public. The tables must be quoted accurately, but also distinctly, so that no mistake could arise.

The PRESIDENT valued the returns very much, because when properly understood they afforded clear and conclusive evidence of a steady improvement in Medical education, and they afforded a test which the Council would be very slow to give up.

Dr. ANDREW WOOD: But let them be a true test.

The PRESIDENT said no doubt they were published in such a form that a person not very well acquainted with the matter might be deceived by them, and the extent to which they were exaggerated at the present time by public men to prove inefficiency of Medical attainments was preposterous. It was only right to remind the Council that it was not the Army and Navy Board, but the Council itself, which had desired to have these returns as a test. He believed they had been a matter of considerable trouble and annoyance to the Board, but, out of deference to the Council, they had been continued.

After some further discussion, the Chairman put the motion, and it was carried unanimously.

SECOND DAY.—WEDNESDAY, JULY 5.

CHARGE AGAINST MR. WM. HENRY KEMPSTER.

The PRESIDENT read the section of the Medical Act under which the proceedings against Mr. Kempster were taken:—"If any registered Medical Practitioner shall be convicted in England or Ireland of any felony or misdemeanour, or in Scotland of any crime or offence, or shall, after due inquiry, be adjudged by the General Council to have been guilty of infamous conduct in any Professional respect, the General Council may, if they see fit, direct the Registrar to erase the name of such Medical Practitioner from the Register."

Mr. OUVRY, the solicitor to the Council, stated the nature of the charge, which was that of having allowed Mr. William Goodson, an unqualified Practitioner, to practise under colour of his name, and of having signed certificates of the death of patients whom he had not personally attended. The cases were those of Stephen Henry Manley, who died on May 13, 1870; of Frederick Witt, the child of a railway porter; and of a man of the name of Anderson, who died on March 17, 1867, of consumption. Various declarations were read in support of the charge. Mr. Ouvry then stated that he wished to ask Mr. Kempster whether he produced the agreement between himself and Mr. Goodson?

Mr. KEMPSTER: Certainly; that is part of my defence.

The agreement was then read.

Mr. KEMPSTER: I beg respectfully to submit that that agreement cuts the ground from under the first charge altogether. It really shows that Mr. Goodson is an ordinary assistant. I wish to raise that point first, and ask you whether there is anything to answer now. That agreement was the second one between Mr. Goodson and myself, and I believe that it is the usage of the Profession for Medical men to sign certificates in cases where their assistants have attended patients. I should like to have an expression of opinion upon that point first.

The PRESIDENT: Have you the former agreement?

Mr. KEMPSTER: No; my solicitor kept it, and I believe he cannot find it. I have one here [handing it to the President] which is a copy of it, and it was made with another assistant.

The PRESIDENT: I would ask you, first of all, whether the facts deposed to in these declarations are contested as to their accuracy by you at all.

Mr. KEMPSTER: Not at all. I admit the bare facts, but I object to the manner in which they are put.

The PRESIDENT: I observe that one of these cases occurred in 1867, and the date of the bond that you produce is October 15, 1869. You have mentioned that there was a previous bond, which cannot be found. Now, as you cannot produce that bond, and you rightly consider it a point of importance, I think you might substitute some evidence for that. If Mr. Goodson is himself present, you can, of course, call him as a witness to depose to that bond, because otherwise your bond, being dated October 15, 1869, would not cover a case which occurred in the year 1867.

Mr. KEMPSTER: I do not rest my defence entirely upon the bond; but I may say with regard to that case that it was a parish case, and it is entered in my parish book regularly.

Mr. WM. GOODSON, L.S.A. (examined by Mr. Kempster), said: I am now a registered Medical Practitioner, and have been your assistant for nine years. During the whole of that time, with the exception of a few weeks, I have been under bond not to practise in the locality. There was a former bond which expired before that was entered into. I have never represented myself to be in business on my own account. About six or seven years ago, in consequence of the great increase of population in the neighbourhood, you opened a branch surgery, and I have resided in the house as your assistant. I have always paid over to you the moneys received, except small sums for petty cash and the amount of my weekly salary. Any further payment which you have made to me has been by cheque. I have had your authority for filling up certificates, and have generally consulted you about them. In some few cases it has happened that persons have died without your having professionally seen them, but they have been the exceptions, and not the rule. In such cases I have described the symptoms to you. You have signed the certificates, and left me to fill up the particulars. I have been assistant to other Surgeons, and certificates have been signed by them under similar circumstances—ordinary club certificates. Whatever I have done has been done only as your assistant.

In answer to the President: I have not signed death certificates in Mr. Kempster's name.

The PRESIDENT then called the witness's attention to the declaration of Fanny Milton, stating that she had called twice on Mr. Goodson for a certificate of the death of Frederick Witt.

The WITNESS said that in that case he was not able to give the certificate to Fanny Milton in the first instance, for the simple reason that at that time Mr. Kempster had not signed it. The particulars were filled in by the witness, and Mr. Kempster signed his own name.

Mr. KEMPSTER: I have abundant evidence that there is a conspiracy against myself and other Medical men in the neighbourhood. I have a friend here who has half-a-dozen actions against him pending at present. Am I now to consider the case before the Council?

The PRESIDENT: You are at liberty to say anything more that you wish to do, either in the way of addressing the Council or of calling any friends of yours as witnesses.

Mr. KEMPSTER: It seems to me that I am charged with a variety of offences. I am charged with permitting an unqualified person to practise under colour of my name, and that I share in the profits of such practice. Now, I have not shared the profits, but have taken the whole of the proceeds of that practice. If the Council would give me an opinion on each matter as it arose, it would be much easier for me to deal with the charges; but I think I have shown, on the first point, that Mr. Goodson has only practised as my assistant. As to permitting an unqualified assistant to practise, I must direct your attention to one of the regulations of the Royal College of Surgeons, Edinburgh. The candidate for admission to membership must produce a certificate of having been engaged for six months as visiting assistant to a registered Practitioner. You require students to bring a certificate of this kind in order that they may become qualified assistants; yet, if a death occurs during that period in which he has been acting as assistant, the Practitioner is liable to be tried before you for unprofessional conduct. Besides that, a second charge appears to be that I have issued certificates of death, signed or purporting to be signed by myself, when such has not been the case. I have only to say that, during the last four years covered by these charges, I have examined the counterfoils of my certificate-books for death. I am the parish Surgeon, and have a large practice. I hold many appointments, and probably the majority of deaths in the district have to be certified by me. The party who is at the bottom of these proceedings has been endeavouring to get up a case for the last four years against me, yet he can discover only three cases in which the evidence asserts that I have not seen the persons whose deaths are certified. In the case of Anderson, I most emphatically deny what is alleged. It is true I did not see him for some little time before his death, but I have seen him on many occasions. He suffered from chronic phthisis. I left him in the care of Mr. Goodson. And, with regard to these other cases, they are pretty nearly the only cases which I have not seen prior to death. It is a very hard thing that I should be brought up to answer such a charge when the foundation of it is so slight. I am prepared now to show

that what I have done is the usage of the Profession, and therefore I contend that my conduct cannot be considered as "infamous."

Mr. James J. Joseph, L.R.C.S. and K.Q.C.P.I., examined by Mr. Kempster. He said: I am a registered Medical Practitioner, residing in Battersea, and have known you for four or five years. I have known Mr. Goodson for some time, and feel assured that he is your assistant, and has not been and is not in business for himself. I have seen your surgery in Arthur-street, and your name on the door-plate. Mr. Goodson's name is not upon the plate. I have been seven or eight years in the Profession as an assistant as well as principal, and I attended cases before I was qualified. The practice in case of the death of a patient whom I attended was to sign the certificate. I have known many cases of Medical Practitioners employing unqualified assistants, and I believe that is the usage of the Profession under the circumstances. It is within my knowledge that almost every Practitioner in our neighbourhood has at some time had an unqualified assistant, and has signed certificates in the same way.

The President: You mention that you signed certificates of death when you were attending the case, not for yourself, but for your principal whose assistant you were. I wish to ask you whether you signed those certificates in his name or in your own?

A. I filled up the certificate signed by my principal.

Q. Did those certificates state that the patient or the deceased had been attended by your principal?

A. By him. He had seen the case along with me.

Q. Then in that respect they were quite true?

A. Yes.

Q. But did you sign his name to any certificates where he had not been in attendance on the deceased?

A. No.

Mr. Kempster: There is some misunderstanding. I asked whether you had ever, as an assistant, attended a patient who had died before he or she had been seen by your principal—whilst you were an unqualified assistant?

A. Yes.

The President: In that case did you sign the certificate in the form representing that that patient had been attended by the principal?

A. By the principal.

Q. I think you have not clearly understood the question. The question put both by Mr. Kempster and myself was to this purport: In the case of a patient who died while you were attending, and who had not been seen by your principal, did the certificate run in the form that that patient had been seen by your principal?

A. Yes; and it was signed by him.

Q. Although he had not seen the case?

A. Although he had not seen the case. It is common in parish cases.

In answer to Dr. Quain, the Witness stated that the certificates were in the usual form that "the patient was last seen by me" on such a date.

Mr. W. Greenwood Sutcliffe, M.R.C.S., examined by Mr. Kempster. He said: I am a resident Medical Practitioner, residing at Nine Elms, and have known you for nine years, and your assistant, Mr. Goodson, for seven years. Of my own knowledge I am assured that he is your assistant, and that he is not in independent business for himself. I have seen your name on the surgery where Mr. Goodson resides. I have been seven years in the Medical Profession, and was an assistant for twelve or fourteen years previously. During that time cases have occurred of my attending patients who have died before they were seen by my principal, and I always signed the certificates myself by the authority of my principal.

The President: In your principal's name or your own?

A. In his name. Of course, what I did he was responsible for. That practice is very general in the country. The certificates run in the usual form—"The patient was last seen by me" on such a date. I certainly signed the certificates, although my principal had never seen the patients. I have been in all parts of England, and I have always found that has been the custom.

In answer to Dr. Acland, the Witness stated that the Registrar would not take a certificate signed by an assistant "for" his principal. In such a case they would register the death as uncertified. He also added that in general practice it was utterly impossible for many Practitioners to attend every patient personally.

Dr. Christison asked whether the practice was for an assistant to be supplied with blank forms signed by his principal, which he had authority to fill up without communicating with his principal at all.

Mr. Kempster said that one of the depositions which had been read almost answered that question. Mrs. Milton said that she had to wait two days for the certificate; whereas if the forms had been already signed she would have obtained the certificate on her first application. But Mr. Goodson had to tell her to wait until he had obtained the signature. In some districts it was usual for assistants to be provided with forms signed by their principals, but that was never his practice.

Mr. W. Baxter Langley, M.R.C.S., in answer to Mr. Kempster, said: I am a registered Medical Practitioner, and have been in practice both as principal and assistant. I am now a Medical agent in Lincoln's-inn-fields. One department of my business is to provide Medical men with assistants. I have written a work on the Laws and Customs of the Medical Profession, which has gone through four editions very rapidly, and has been accepted, I believe, as a standard authority. Questions of that kind are referred to me sometimes from the courts of Westminster. Mr. Justice Hannen referred one to me last week. I believe that about 500 appointments pass through my hands every year, and I am besides in constant communication with a very large number of principals and assistants who eventually make arrangements through other channels. As to the proportions of unqualified and qualified assistants, there has been a very remarkable change within the last few years. Formerly the great demand was for unqualified assistants, because the principals thought that they could not compete with them; but the tendency to have qualified assistants has very much increased, and principals tie them down with the ordinary bond not to practise in the locality. Ten years ago the proportion of unqualified assistants was five to one, and probably the number now is only three to one. It is frequently the case that a patient dies before he can be seen by the principal, especially when there is a branch establishment. I know of a case where an assistant resides eight miles away from the principal, and there is a range of mountains between them, so that such cases must constantly occur. With regard to such cases, the principle recognised by the Profession is something of this kind: *qui facit per alium facit per se;* the principal, employing a man whom he believes to be tolerably competent, allows him to fill up these documents, subject to a communication with himself, as a general rule, but in exceptional cases the assistant uses a document that has been signed by the principal, though the principal has never seen the patient. There are cases of that sort in which a Medical man would feel himself justified in adopting that course rather than to horrify the relations by allowing them to suppose that the child was buried without a certificate. I do not mean to say that that is the best custom, but I am sure it is a wide-spread custom, arising out of the necessities of the case, particularly where the assistant is resident at a long distance from the principal. I heard you read the regulation as to applicants producing a certificate of having attended for six months as visiting assistants, and I certainly do not understand by that that the assistant is always to be attended by his principal. In cases where the assistant resides five or six or more miles from the principal it is quite impossible for the principal to see a large proportion of the patients. In the East-end of London it has been a general custom for the certificates to be signed by the parish officer; the assistant really attends the case, and sends out the documents from time to time, consulting the principal when he is able, but in some urgent cases, no doubt, he uses the certificate without doing so. In that case the agent is supposed to be acting for the principal, just as the managing clerk of a solicitor would represent the firm and act on their account. He would appear in court just as if he were the principal.

In answer to Dr. Allen Thomson: I know of instances where the assistant signs the name of the principal by his authority, in cases where the latter has not seen the patient. That must be so in a large number of cases.

In answer to Dr. Bennett: In all those cases I am quite sure the principal's name is signed by a general authority of the principal, and there is no indication on the face of the certificate that it is not signed by the principal. It goes to the registrar as a *bonâ-fide* signature of the principal.

In answer to Dr. Sharpey: I am afraid it has been the custom for the signature of the principal to be used when he has not himself seen the patient. We are all too apt to use forms rather loosely.

The President: May I ask you why the assistant could not sign "J. Smith, for J. Brown"?

A. Because the registrar would not receive it. He would at

once object to it. He might say, "This is not the signature of the parish Surgeon."

Q. Can you tell me what would be the consequence of the Medical Practitioner giving no certificate? Would there be any serious consequence resulting from his declining to give a certificate?

A. Your legal adviser would answer that question better than I. The popular impression is that when a person is buried without a proper certificate, there is something dishonourable attaching to the funeral—that the person did not die a natural death, in fact.

Dr. PARKES: Is it consistent with your knowledge that the Poor-law Board require that the parish officer shall have qualified assistants?

A. I was communicated with as to the possibility of that being carried out, and I replied that it was quite possible, provided the Board of Guardians would allow a sufficient salary to the Medical officer.

Q. Do not a large majority of parish Surgeons employ qualified assistants?

A. There has been a very great change in that direction; but a large proportion, I am sorry to say, have not arrived at that condition yet.

Dr. STOKES: Is there any charge for these certificates?

A. I believe not; but your legal adviser would be better able to inform you.

Dr. ARJOHN: Is it the practice at present for the principal to issue a bundle of these certificates, signed by him, to be filled up by his assistants?

A. Certainly not in that miscellaneous way. I do not think he would be guilty of such lax conduct as that; but when an assistant lives seven or eight miles off, sometimes three or four of these certificates are signed by the principal, on the distinct understanding that they are to be used only in cases of great emergency.

Mr. KEMPSTER then addressed the Council. He said that the present was a most malicious proceeding on the part of Dr. Leslie, and was one of a long series to which he and other Medical men were being subjected. A memorial was sent a year ago to the Registrar-General begging him to prosecute; but, after consultation with legal advisers, the Registrar-General said that no offence had been committed, and that what was done was usual. Subsequently he was summoned before Mr. Ingham, at Wandsworth Police-court, under the 6th and 7th William IV., c. 86, for making a false statement to be inserted in a register of death. Mr. Ingham at once said that it was an attempt on the part of the prosecutor to invent a new offence. A memorial was then sent to the Home Secretary, who consulted the Registrar-General, and decided that there was no offence.

The PRESIDENT informed Mr. Kempster that it was at the instance of the Registrar-General and the Home Secretary that the matter was referred to the Council.

Mr. KEMPSTER inquired whether the fact really was that it was at the instance of the Home Secretary and the Registrar-General, or whether those officials had not simply referred the memorialists to the Medical Council.

The PRESIDENT replied that the latter was the case.

Mr. KEMPSTER contended that that was a very different thing from proceeding against him. The charge made resolved itself into one of "infamous" conduct. That was a very strong word to use with reference to a comparatively small matter. Dr. Leslie had laid a regular trap for him—he managed to see a patient, and got him to go to Mr. Goodson. What had been done was done by Medical men every day. If he had unwittingly done anything wrong he expressed his sorrow for it, and assured the Council that it should not be repeated. For the future he would not sign a certificate unless he saw the patient himself.

Mr. OUVRY (at the request of Dr. Acland) stated that the charge was brought before the Council by Dr. Leslie, who had forwarded a correspondence between himself and the Home Secretary and the Registrar-General, in which they declined to interfere, but suggested that he should bring the case before the Medical Council.

The room was then cleared, and the Council deliberated for more than an hour.

Upon the readmission of the reporters,

The PRESIDENT, addressing Mr. Kempster, said: The Council wish me to mention that the delay has been due rather to the form in which they wish their conclusion to be recorded than to anything else, and I have the pleasure of telling you that the Council acquit you of the charge preferred against you; and I have great pleasure in adding that they do so unanimously.

Mr. KEMPSTER (with emotion): I have nothing to say but to thank you for the impartial hearing I have had.

Sir D. CORRIGAN then proposed the following resolution:—"That the facts which have come to the knowledge of the General Medical Council in the investigation of the case of Mr. William Henry Kempster, have impressed this Council with the conviction that an amendment of the laws in force in regard to death registry is most urgently required; and that a copy of this resolution be forwarded to the Secretary of State for the Home Department."

Dr. CHRISTISON, in seconding this, stated that it appeared to him, from information which had been communicated in the course of the investigation, that a change was absolutely necessary, to render it possible for a Medical man to obey the law, and that there ought to be a certain latitude allowed with respect to assistants signing certificates of death.

Dr. ACLAND observed that a more unsatisfactory and tortuous state of the law, more perplexing and unjust to Medical men, could not be conceived. It was connected with many other evils bearing very hardly on the Medical Profession and on the public, and was an evil of such magnitude that Mr. Goschen, in his Local Taxation Bill, had proposed the construction of an entirely new Public Health Department, with a special Minister who would have under his surveillance the whole of these questions; but unfortunately that Bill was withdrawn. Mr. Stansfeld, however, as President of the Poor-law Board, had given notice of a Bill which would come before the House to-morrow; and it was the bounden duty of every member of the Council who had heard the evidence to-day to exercise all his influence in promoting any scheme which affected the happiness, health, and well-being of the public as that Bill would. When the public read the remarkably straightforward evidence which had been given, they would be taken by surprise to learn that the registration of deaths should be in such a state of confusion.

Dr. ALEXANDER WOOD said that in Scotland the Registrar-General and Sub-Registrars were extremely anxious that there should be a better mode of giving certificates. He remembered a case where strong suspicions existed as to the death of a child. The regular Medical Practitioner had been dismissed, and a person had been called in who had no licence at all. The child died, and a gentleman who had never seen the child before its death was brought to sign the certificate. This was represented to the Registrar-General, and eventually it was put into the hands of the public prosecutor, who, after making certain inquiries, gave up the prosecution on the ground that the individual who had committed this gross breach of propriety was sorry for it, and had apologised. But there was nothing to prevent such a state of things continuing, and he was of opinion that the only remedy was that the person signing the certificate of death should, *bonâ fide*, state that he attended the patient during life, and that where death had taken place without Medical attendance the death should not be certified by a Medical man.

Dr. STOKES expressed his conviction that the form of the certificate of death was entirely faulty, as it contained a number of particulars, such as the age of the patient, the length of his illness, the place of his death, as to which a Medical man ought not to be expected to certify. In some cases a certificate was applied for when death had not taken place, an instance of which he had heard of in Dublin, where the Doctor took the precaution of calling at the house, and found the man alive and kicking. (A laugh.) Then, as to the cause of death; it seemed a simple question to ask, but it was a most difficult one to answer.

After a few words from Dr. SMITH, the resolution was carried unanimously.

Dr. ACLAND moved that the questions relating to the Medical Bill and the President's answer yesterday should be inserted in the minutes.

Dr. GULL seconded this; but as there was a strong feeling that such a course would be inconvenient, as well as against the Standing Orders, the resolution was withdrawn.

The minutes of yesterday's proceedings were then confirmed, and the Council adjourned to to-morrow at two o'clock.

THIRD DAY.—THURSDAY, JULY 6.

MEDICAL EDUCATION.

The Council proceeded to consider the motions proposed by Dr. Parkes on the Educational Report, which was taken as read.

INSTRUCTION IN PHARMACY AND THERAPEUTICS.

Dr. PARKES moved—"That it is desirable that the instruction in pharmacy should be separated from that in therapeutics,

and that the former should be obtained at an early, and the latter at a later, period of the Professional curriculum." He said that he considered it most necessary to teach students to make up their own prescriptions and to understand the nature of drugs; and as to the science of therapeutics, there could be no question that it was one to which much greater attention ought to be paid.

Dr. CHRISTISON seconded this, and observed that the universities of Scotland had for a long time followed the practice of Continental universities, where distinct instruction was given in therapeutics.

Dr. MACROBIN also spoke in support of the motion.

Dr. HUMPHRY did not think it was necessary to have separate courses of lectures on therapeutics, because he thought that science could be best taught in connexion with Medicine and Surgery, and it was a science only in its infancy. He was of opinion that the Licensing Bodies should not be confined to any particular mode of imparting instruction. He moved the following amendment:—"That the practical instruction in pharmacy may with advantage be substituted for formal lectures on the subject, and should be attended at an early period of the Professional curriculum, and that instruction in therapeutics should be conducted at a later period of the Professional curriculum, either by a special course of lectures, or as an essential part of the courses of lectures on Medicine and Surgery."

Dr. APJOHN seconded the amendment.

A discussion then followed, in which Drs. ALEXANDER WOOD, AQUILA SMITH, THOMSON, Mr. HARGRAVE, and Sir DOMINIC CORRIGAN took part.

The amendment was put to the meeting and rejected, there being only three votes in favour of it.

The original motion was then put, and carried.

INSTRUCTION IN MIDWIFERY.

Dr. PARKES proposed, "That it is desirable that the Professional instruction in midwifery should be extended, and that every candidate for a licence shall be required to attend not less than twenty labours." He said that the lectures on midwifery were supposed to include instruction in the diseases of women and children, but he believed that the students of the present day were far less trained on those matters which concerned their every-day practice than were the students of former days. The authorities of the College of Surgeons of England and of the Apothecaries' Hall were of opinion that the course of midwifery should be extended. The Committee were not by any means agreed as to the number of labours, and twenty was fixed upon as a sort of suggestion or compromise, but of course the Council could substitute any other number.

Mr. HARGRAVE seconded this.

Dr. HUMPHRY was of opinion that it was much better to leave the subject to the licensing bodies. He thought the time spent in attending labours beyond the first few was not compensated by the additional amount of information gained, and it would be a great hardship to Medical students, especially in London, to require them to attend so many as twenty labours.

Mr. MACROBIN stated that he would vote for the motion if ten were inserted for twenty.

Sir DOMINIC CORRIGAN opposed strongly, and said that it looked very like a scheme for the sale of certificates.

Dr. ALEXANDER WOOD suggested that the motion should be, that the instruction on midwifery should include lectures on the diseases of women and children.

Drs. Stokes, Bennett, Quain, Fleming, and Mr. Quain, and others, expressed opinions generally against the adoption of the motion.

Dr. MACROBIN moved, and Dr. ANDREW WOOD seconded, the following amendment:—"That it is desirable that instruction in midwifery should be extended beyond three months, so as to embrace instruction in the diseases of women and children, and that every candidate for a licence be required to attend not less than ten cases of labour."

This amendment was lost, as also was an amendment proposing simply to substitute ten for twenty cases of labour.

The original motion was then put and lost.

PATHOLOGICAL ANATOMY.

Dr. PARKES then moved the resolution No. 3:—"That it is desirable that a course of systematic lectures on pathological anatomy should be introduced into the Medical curriculum."

Dr. ANDREW WOOD seconded it.

Mr. HARGRAVE moved an amendment to the effect that the word "lectures" should be omitted, because he was against tying down the Licensing Bodies to any particular mode of imparting instruction.

Dr. STOKES seconded this.

The debate was continued by Sir Dominic Corrigan, Drs. Christison, Sharpey, and Gull; and upon being put to the vote, the amendment, which was in these terms—"That it is desirable that systematic instruction in pathological anatomy should form part of Professional education"—was adopted.

COMPULSORY CLASS EXAMINATIONS.

The fourth resolution was then proceeded with—"That it is desirable that class examinations should be compulsory, and that the Licensing Bodies should require them in all cases."

Dr. HUMPHRY said that, having on all former occasions raised objections to Dr. Parkes' resolutions upon this subject, he had great pleasure now in seconding this motion. He was satisfied that class examinations were beneficial, not only to the students, who took a great interest in them, but also to the masters themselves, who learnt by them the weak points in their teaching.

Dr. STOKES objected to the word "compulsory," which he thought dangerous and doubtful in its operation.

Dr. ALEXANDER WOOD supported the motion.

Sir D. CORRIGAN moved the following amendment:—"That it is desirable that class examinations should form a part of every course of lectures, whether systematical or clinical." He agreed with Dr. Stokes that the word "compulsory" was objectionable. It would only lead to the sale of false certificates, which is the curse of the rising generation of Medical men.

Dr. A. SMITH seconded the amendment, and Drs. Andrew Wood, Sharpey, and Gull supported the original motion, the latter proposing to insert the words "on students" after the word "compulsory."

Sir Dominic Corrigan's amendment, having been put to the vote, was lost.

Dr. ACLAND then moved, and Mr. QUAIN seconded, the following amendment to the original motion:—"That it is desirable that class examinations should be compulsory on students"; but, on being put to the vote, it was lost.

Mr. QUAIN then moved an amendment in the following terms:—"That it is desirable that class examinations should form a necessary part of class instruction."

The amendment was seconded by Dr. A. SMITH, and, upon a division, was carried by the casting vote of the Chairman.

SMALL-POX RETURNS OF THE ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.

New Cases of Small-pox occurring in the Public Practice of the undermentioned Districts.

Districts.	No. of Cases week ending						
	May 27.	June 3.	June 10.	June 17.	June 24.	July 1.	July 1. Sent to Hospital.
WEST—							
Chelsea	12	16	20	15	?	?	—
St. George, Hanover-sq.	15	17	21	10	10	8	5
St. James, Westminster	3	8	1	5	3	2	2
NORTH—							
St. Pancras	116	113	77	68	69	42	?
Islington	50	36	52	35	26	23	13
Hackney	17	25	20	19	22	?	—
CENTRAL—							
City of London	8	17	10	12	10	9	?
Holborn	5	8	6	9	4	3	3
St. Luke's	12	13	13	16	16	10	9
EAST—							
Whitechapel	13	5	18	9	12	10	?
Poplar	14	?	?	?	?	?	—
Bow and Bromley	?	?	?	?	16	12	7
SOUTH—							
St. Mary, Newington	30	35	36	24	46	14	12
St. Olave, Southwark	5	5	2	1	1	1	1
Lambeth	24	22	23	?	?	?	—
Clapham	6	14	11	5	7	5	1
Wandsworth	5	6	2	—	4	5	3
Streatham	2	?	3	?	4	?	—
Lewisham	?	6	?	?	3	?	—
Camberwell	?	?	41	32	?	21	9
Plumstead	5	4	6	—	2	—	—

FINANCIAL POSITION OF GOVERNMENT
IN RELATION TO
ARMY MEDICAL DEPARTMENT.

*** The following has been forwarded to us for publication:—

Number of Medical Officers in each Rank, with Pay thereof, on May 1, 1871.

No.	Rank.	Pay per Annum.
101	Surgeon-Majors	£43,329 0 0
235	Surgeons	85,775 0 0
1	Assistant-Surgeon over 15 years .	319 7 6
231	Assistant-Surgeons „ 10 „ .	63,236 5 0
241	Assistant-Surgeons „ 6 „ .	54,978 2 6
137	Assistant-Surgeons under 6 years.	25,002 10 0
946		£272,640 5 0

Number of Medical Officers in each Rank, with Pay thereof, as will be on May 1, 1876.

No.	Rank.	Pay per Annum.
212	Surgeon-Majors	£92,856 0 0
124	Surgeons	44,895 0 0
117	Assistant-Surgeons over 15 years.	37,366 17 6
229	Assistant-Surgeons „ 10 „ .	62,688 15 0
137	Assistant-Surgeons „ 6 „ .	31,253 2 6
127	Assistant-Surgeons under 6 years.	23,177 10 0
946		£292,237 5 0
	Excess	£19,597 0 0

The foregoing figures distinctly prove that, at the present rate of promotion, the position of the component members of the department must, at the expiration of five years, be so altered by length of service as to cause the gradually increasing outlay to have then reached an additional cost of nearly £20,000 per annum.

In this calculation no count has been taken of the number of Surgeon-Majors over twenty-five years' service, whose pay is consequently augmented by 3s. a day (viz., 27s.), as this sum is allowed to be a set-off against the probability of any deaths amongst the senior Assistant-Surgeons, whose places would then be supplied by those on a lower rate of income.

The calculation is thus rendered perfectly incontestable, and a continuance of the investigation will also show that each succeeding year must, by a process of reduplication, add immensely to the increasing price of the Medical Service.

It is therefore evident that on this day five years (May 1, 1876) the country will possess an army Medical staff of the exact numerical strength of to-day, but costing £20,000 more; and that for this augmented outlay nothing but discontent and dissatisfaction amongst those who are growing old in the subordinate grades will be purchased, without even adding a single man to a projected Medical reserve.

That those now in office will have retired ere then is a strong incentive to avoid the question; but, minor though the consideration is in comparison with the greater military questions of the day, it cannot thus be shelved.

The solution of the difficulty is not only feasible, but possesses the rare qualification of being beneficial alike to the State and to the Service—viz.: Optional retirement at twenty years' service, instead of twenty-five, on £1 a day, conditional on enrolment, up to the age of 55 years, in the Medical Reserve, from which the militia could be provided with experienced military Surgeons, on the additional allowance to each officer, when so employed, of quarters, fuel, servants, and forage.

Paradoxical as the statement may seem, it is nevertheless a fact that the retirement of a Surgeon-Major on £1 a day costs the State only 8s. 6d.; since, by his removal, 24s. being saved, while the promotion of an Assistant-Surgeon over fifteen years' service to the rank of Surgeon costs only 2s. 6d., and the appointment of an Assistant-Surgeon to fill the place of the latter 10s. a day, this sum, 12s. 6d., with the 20s. given as *pension* to the Surgeon-Major, represents a total loss of 32s. 6d., against a gain of 24s., leaving a balance loss of 8s. 6d., at which rate, for the increased outlay of £20,000, 129 Surgeon-Majors might be *pensioned yearly*.

It is therefore incredible that the excess of expenditure should still continue to be dispensed to the hardship of the recipients, when a proper utilisation of a far less amount would reproduce a normal rate of promotion, establish a Medical reserve, supply Medical officers for the Militia, and give rise to contentment in a department where despair and stagnation now reign. That the members of the House of Commons interested in collateral military affairs will, when the press of business lessens, demand an investigation of this subject cannot be doubted.

May 1. X. Y. Z.

REVIEWS.

Lectures on Surgery. By JAMES SPENCE, F.R.S.E., Surgeon to the Queen in Scotland, Professor of Surgery in the University of Edinburgh, etc. Parts III. and IV. Edinburgh: Adam and Charles Black.

THOSE who looked forward to these concluding volumes of Mr. Spence's work as likely to contain the most valuable results of his large Surgical experience, will not be disappointed. We greatly prefer the portions on Operative and Regional Surgery to the earlier sections of the book, of which we could not speak quite so highly. After thirty-five years' Surgical practice, twenty-two of them spent as a Lecturer on Surgery and a Hospital Surgeon, Mr. Spence considers justly that he may claim some right to state decidedly the opinions which he holds, and the practice which he has found from experience to be most successful; and accordingly, these last volumes, which treat so largely of practical subjects, teem with valuable suggestions and rules for practice, which acquire great force from the writer's very high position in the Profession and widely recognised reputation as an able operator. Not the least important feature in these lectures is the prominence given to such anatomical facts as are of special importance in diagnosis and operative Surgery, but which the ordinary student of anatomy is too apt to forget when he comes to apply his knowledge to the practice of Surgery. Ophthalmic Surgery has been wisely omitted altogether from the course, it having been felt that due justice could not be done to so important a subject within the limits of a series of lectures on general Surgery. The only part of the book to which we must still venture to take exception is the manner in which chromolithography has been adopted, "as preferable," to use the writer's own words, "to the ordinary woodcuts, both in respect to the perspicuity afforded by colour, as well as enabling me to give faithful transcripts from photographs, or from original sketches made by various artistic friends, of actual cases or dissections, and used by me as class illustrations in my lectures at the University." The coloured plates are much fewer in the later parts of the book, and they are perhaps clearer than those in the former volumes, but they nowhere approach in distinctness the outline sketches or woodcuts, and we cannot help regarding a slightly diagrammatic clearness as more valuable than too rigid faithfulness in a student's text-book; not that even the outline sketches are always all that could be desired in this respect. For instance, Plate lvi., representing, as we are told, the parts involved in lithotomy in a child, is to us absolutely unintelligible from any point of view, and would certainly not help a student, however closely it may resemble a spirit preparation. We think that many of the drawings illustrating the work do but scant justice to the text, and certainly fail to clear up such few points as are not very fully described in writing.

Dipping at random into those parts of the book which have interested us most, we may draw attention to an admirable chapter on the mode of arranging for operations when all the skilled assistance and paraphernalia used in the Hospital are not at hand. Mr. Spence is a zealous advocate for chloroform, which he has used in almost all operations, small or great, since 1847, and he has had the rare good fortune to lose only one patient by its employment. The treatment of cases of danger attending its administration is fully laid down, and it is recommended to bring the patient rapidly under the influence of the drug rather than commence with small doses gradually increased. "Measurement of the chloroform used is merely to give an appearance of precaution, and, I presume, to enable the Surgeon to be prepared for a coroner's inquest." Mr. Spence is opposed to the notion that the mortality after operations has increased since the employment of chloroform has become general. He ignores the statistics upon the point, and declares that such statements are mere assertions without any distinct proof; and he meets them with the counter-assertion, that chloroform "has greatly advanced the successful results of operations." This is a question doubtless very difficult to settle, although of no small importance, and its difficulty has been increased by the conflicting statistics published. Did not Sir James Simpson himself put forth statistics, not

many years since, showing how small was the mortality in Hospitals since the introduction of chloroform? And when the like figures were needed, not many months back, to show the great mortality in large Hospitals as compared with private practice, had not the same operations become very much more fatal in their results? We may therefore comfort ourselves with Mr. Spence's conviction, that the increased mortality which some statistics have seemed to indicate is no real bar to the use of a drug which saves both patient and Surgeon so much.

Exceedingly useful chapters follow on the ligature of the principal arteries and on excision of joints. In the sections on Amputation Mr. Spence compares the circular with the flap method, and refers to a series of experiments undertaken by him many years ago, with the view of discovering the best form of operation for producing a good stump. He gives the decided preference to the flap operation, but of late years he has chiefly practised in the thigh and leg a modification of Teale's method, making a single long anterior flap, which he finds offers many advantages in the formation of a good stump, whilst it saves the Surgeon the troublesome details of measurement, etc., required by Teale's method. That Mr. Spence is well qualified to speak with authority, is evident from the statistics furnished by his own practice, in which 403 cases of amputation are variously tabulated and compared. Here, as in former portions of the work, the subject is enriched with clinical cases and practical notes.

Injuries and diseases of the head and spine usher in the important section on Regional Surgery, which occupies the remainder of the book, and is abundantly illustrated by clinical cases. We have no space to follow up the various portions of the subject, but we would specially direct attention to the chapters on hernia, and on the treatment of stone and stricture, as showing the thoroughly practical character of these lectures. This series of lectures will no doubt be warmly welcomed by many an old pupil of the author, whilst the work cannot but contribute largely to sustain Mr. Spence's high reputation as a Surgeon of unusual ability and experience.

COLONIAL CORRESPONDENCE.

AUSTRALIA.

(*From a Correspondent.*)

MELBOURNE, VICTORIA, April 22.

THERE is a general impression in this part of the world that our friends in the old country do not know much about us, either socially or politically, and I am sure that, so far as the Medical Profession here is concerned, this ignorance of us is at home supreme. There seems to be a general belief that, in some way or other, we are unpleasantly associated with convictism. To this feeling was to be traced, I presume, the reluctance on the part of the Medical Council, when framing the amended Medical Bill, to register Medical degrees of the Melbourne University unless the applicant holding them should first have resided twelve months in England, so as to purge himself from all suspicion of being an ex-prisoner of the Crown. Caution, however, is indicated quite in a contrary direction, for there is much more likelihood of new arrivals here being open to the suspicion of unfavourable antecedents than of those returning to England.

Taking the Profession in this colony altogether—and there are 468 of us, as *vide* the last "Register" issued by the Medical Board—I think we are a tolerably reputable body. There are among us, unfortunately, some very frightful examples of the black-sheep variety. These are, happily, not numerous, but they are eminently mischievous, and by their malignant activity they have brought the Profession a good deal into disrepute; for the public, as we know, judge on the *ex pede Herculem* principle. Others there are who, without being actually disreputable, are so strongly imbued with the trading instinct that they sacrifice every consideration for the sake of material gain. It is to these gentlemen we owe the great extension of the club-Doctor system. There was a time, and that comparatively recently, when club Doctors did not exist in this colony, but now they are numerous, and the injury they have quite unnecessarily inflicted upon the Profession constitutes one of our most crying grievances. If I remember rightly, it is the rule in the old country for only the head of a family to be attended by the club Doctor, and the collateral practice, represented by the attendance upon the wives and families of the men, makes up, in some measure, for the loss in taking, at a nominal fee, the head of the household; but here the whole family is included, and, as we are a prolific race, the work of attending patients of this kind is something to deter all but those who are either insatiable in their appetite for ill-requited occupation, or whose needs compel them to accept such appointments. The sum paid for a year's attendance upon a family averages about 11s.; in some instances I have known it to be as low as 7s. 6d., and I have heard of 4s. 6d. being received. Until lately, this munificent fee has included medicines, but now the clubs are establishing Dispensaries, where the prescriptions of the Medical officer are made up. The rate of payment of the Doctor, however, has been proportionately lessened. The most degrading part of this club attendance arises from the fact of the Medical officer being chosen according to the "tenders" sent in. A lodge issues an advertisement that tenders will be received from duly qualified Medical Practitioners willing to supply Medical attendance and medicines during a given period. I am sorry to say these advertisements are numerously responded to, as the following extract from one of the daily newspapers will show:—

"The following elections of Medical officers in the Bendigo district are announced:—At a meeting of the Loyal Catherine Lodge, Eaglehawk, held a few days ago, for the purpose of electing two Medical officers, three tenders were received, and Drs. Atkinson and Thom were duly elected. At a meeting of the Rechabite Society, held on Tuesday evening last, for the same purpose, Dr. J. J. Thom was elected. Tenders were received by the Court Pride of the Forest, Golden-square, on Monday evening last, from Drs. Eadie, Boyd, and Tovell, for Medical attendance, when Dr. James Eadie was elected by a majority of sixty votes."

From time to time an endeavour has been made to check this growing evil; but as those whom the abolition of the system would temporarily affect are actively antagonistic, and as those whose position renders them independent of clubs are indifferent, the opponents of the club system have only got pooh-poohed on the one hand, and denounced on the other. So the evil grows, and is likely to grow still more, until it reaches such proportions that its own monstrousness will prove its destruction.

We have lately built a new Hospital in Melbourne. It is a handsome structure, and combines the last improvements in architectural hygiene, but it is in a bad, low-lying situation, the only reason for selecting the site being that the ground was given by the borough council of one of the suburban townships. There was a strong effort made to have it erected near the Medical School of the University, both for the obvious reason that a Hospital is a necessary part of a Medical school, and because the University is surrounded with comparatively poor localities, where the greatest number of Hospital patients might be expected to be found. But it happened that the promoters of the Alfred Hospital—for that is its title—belonged to the vulgar-rich class, and they had predetermined to have it in their own quasi-aristocratic suburb; and they carried their point, and so put up the building in a swamp, from which drainage is impossible. Moreover, it is two miles out of town, and all the patients have to come from long distances; as most of the Medical staff have to come long distances too, a good many people are inconvenienced who need not be. Speaking of the staff, I must mention that a new principle has been adopted, both in defining the qualification and in the mode of election of the staff. Strictly speaking, the staff is not divided into Physicians and Surgeons, although the practice in the Hospital is divided into Medical and Surgical. The acceptance of Medical or Surgical duties, however, depends upon the taste or inclination of the officer. The rule defines a general qualification—that is to say, the candidate must hold a recognised degree or licence, and be on the register of the colony; but he can take either Medical or Surgical duties. The election, moreover, is in the hands of the committee—or, as they are called, the Court of Management; and this is so far an advantage, that the discreditable canvassing of subscribers is avoided. Some little confusion has arisen out of the circumstance that among those accepting Surgical duties are some Doctors of Medicine, and among those doing Medical work are Surgeons having no university degree. All the quasi-Physicians, I hear, insist upon being styled "Dr.," and as this involves the styling of some of the M.D. Surgeons "Mr.," the Committee of Management are puzzled a little how to act. This confusion of titles is very common in this colony. It is the rule for the public to address every Medical man as "Dr.," and those who have not even a colourable right to this designation—such, for example, as being M.B. or M.R.C.P.—frequently so style themselves, and resent being reminded of the breach of etiquette such assumption infers.

You will have heard something of the controversy which has arisen out of the proposition, by Professor Halford, to employ liq. ammonia, by injection into the veins, as a remedy in cases of snake-bite and other kinds of poisoning in which neuro-paralysis occurs. The Profession generally have accepted Professor Halford's method as a valuable contribution to toxicological therapeutics, and, as about twenty-five cases of recovery from snake-bite have occurred after its use, they claim that its efficacy has been demonstrated. But the small unpleasant section of the Profession—who, though small, like mosquitoes, are very troublesome—deny its efficacy, for no reason, as it would seem, but that they refuse to believe it to be of use. The question has recently been revived by Dr. Neild, who, at the last meeting of the Medical Society of Victoria, read a paper on a case of poisoning by chloroform (swallowed), in which the ammonia injection had been of marked benefit.

GENERAL CORRESPONDENCE.

EFFECTS OF BRITISH CLIMATE ON THE INDIAN CONSTITUTION.

LETTER FROM DR. R. L. DUTT.

[To the Editor of the Medical Times and Gazette.]

SIR,—I shall feel extremely obliged if you will kindly insert the following in your valuable columns. There is a popular belief, even amongst Medical men, that the natives of tropical countries cannot bear the severe climate of colder regions. It is asserted that they fall an easy prey to diseases of the lungs, especially consumption. As is always the case, theory steps forward with a reason to maintain that the lungs of those thus transferred to colder latitudes are called upon to discharge an unaccustomed and undue amount of function as a decarboniser, from the lessened activity of the skin and the liver, as well as from the inhalation of cold and irritating atmosphere; the great onus thus thrown on the lungs serves as a prolific source of disease, aided by any existing or new cause of irritation.

How far this is true cannot be sufficiently ascertained. It is stated on some good authorities that the West Indians and the Africans are very prone to lung diseases by transference to colder countries, such as this; but even if this be true, it does not imply that all tropical nations are so liable. The natives of India now residing in this country enjoy perfect immunity in this respect. There are now more than fifty gentlemen in the United Kingdom; most of them have resided three or four years, and some longer. So far as I am able to judge from what I know of my acquaintances among them, who exceed half the number, and from other sources, I hardly find, excepting occasional cases of cold or catarrh, any serious complaints, much less of diseases of the lungs. There is an increase of muscle, improvement of tone, and energy of circulation, in place of laxity and weakness of fibre, want of tone, and pallidity of skin, the inevitable concomitant of tropical constitution. The processes of digestion and assimilation are found, as a matter of course, equally improved. Dyspepsia, with its train of miserable symptoms, and bowel complaints, such as dysentery and diarrhœa, are rarely to be met with among them. It is remarkable that there is in some of them a marked alteration in colour; it looks much lighter, especially in those of a very dark complexion, where the change is easily discernible.

It does not admit of doubt that the climate takes the chief part in the improvement, though the adoption of English diet and habits appears to have no inconsiderable share in it. What share the climate has, apart from the influence of education, in invigorating their minds, is not so easy to understand; yet it seems not improbable that it serves to check the flow of that vagrant imagination, the peculiar endowment of an Eastern mind, which revels in subjective pleasures, and pictures with vividness the palaces of Aladdin or the diamond-bearing trees of Heaven. And, further, it developes a practical turn of mind, conducive alike to the material prosperity and welfare of the individual and society at large.

In conclusion, the highly beneficial effects of the climate of Great Britain on the health of the natives of India are undeniable, and the prevailing notion of their being deleterious is an error based on no reasonable grounds. Let not those numerous Indian gentlemen who are anxious to see the West be deterred from coming over to England by this imaginary obstacle. I am, &c., R. L. DUTT, M.D., M.R.C.S.E.

97, Camden-street, London, N.W.

THE POLICY OF GARRISONING INDIA AND OUR OTHER TROPICAL POSSESSIONS BY LOCAL ARMIES.

[To the Editor of the Medical Times and Gazette.]

SIR,—Some time ago I wrote a letter to your journal on the policy of garrisoning India and our other foreign possessions by men enlisted specially for the purpose, instead of by imperial troops as at present; that letter you kindly inserted. I see that you remark, in an article headed "Mr Cardwell's Recruits," in the *Medical Times and Gazette* for April 29, that young lads are not suitable for service in India; and that is brought forward as one reason against the policy of raising local armies for India and our other tropical possessions. Now, it seems to me, that if we raised local armies for India, etc., there would be fewer lads in proportion to old soldiers than if we continue to garrison our foreign possessions by imperial troops, and for the simple reason that if we ever did raise local armies for foreign service they would be composed of long-service men; whereas the idea with regard to the future of the imperial army is, that it shall be composed of short-service men. To keep men for only a very few years in the first line, and then pass them on to the reserves, seems to be almost, if not absolutely, decided upon. The proportion of recruits in a short-service army must, in the nature of things, be very much greater than in a long-service army; and even if it be determined to raise six years' service battalions, composed of men who have already served three years in the first line, and employ these battalions in garrisoning India and other places, relieving them at the end of six years, we should be met by that curious fact in statistics, published in the *Medical Times and Gazette* for April 15, 1871, shewing that the death-rate for the first six years of service in India is 43·31, while for the first twelve years the ratio of deaths is only 31·93. Consequently, if we relieved our Indian garrison every six years, we should do so at an unnecessary loss of life, amounting to 11 or 12 per 1000—we should keep men in India during the years of their maximum mortality, and relieve during the years when, if they had remained, their mortality would have been at its minimum. If men were enlisted for Indian and tropical service specially, it seems to me that they could be enlisted as to age and with regard to their special fitness for tropical service. When we consider in addition the vast sum each recruit for India costs, as lately published, the enlisting of men for twelve, fifteen, or twenty years for Indian service, and Indian service only, would be a very economical policy. It is, no doubt, a very important question in the future of our country how she should garrison her vast foreign empire; and different people will hold different opinions, and free discussion will bring out, probably, in time, most of the advantages and disadvantages of local and imperial troops for our foreign garrisons. Perhaps, if you consider this letter worth inserting, you will kindly afford me a little corner in your journal.

I am, &c., X. X.

OBITUARY.

DR. ROBERT DUNDAS.

ON June 25 the Medical Profession lost a distinguished member, and his numerous friends a respected and beloved companion, by the death of Dr. Robert Dundas. Born in Ireland at the latter end of the last century, he entered the Medical service of the army at an early age, served in the Peninsula, and was present at the siege of New Orleans in 1815. He subsequently settled at Bahia, in Brazil, where he was entrusted with the Medical superintendence of the British Hospital. This post he filled for twenty-three years with great credit to himself and benefit to others, rapidly attaining great Professional eminence at Bahia and in Brazil generally. His health giving way, he resigned his Hospital appointment and practice, and returned to Europe with ample means, the product of his skill and industry. He was, however, much too active-minded to accept the leisure so well earned by twenty-eight years' service in tropical climates, and, as soon as his health began to recover, he settled in practice at Liverpool, the residence of many of his old Bahia friends. Here he was appointed Physician to the Northern Hospital, and again did good work for several years. In 1852 he published, under the title of "Sketches of Brazil," a valuable contribution to Medical literature. In this work he advocated strenuously the doctrine that intermittent fever is not necessarily the result of so-called malaria, but may be generated in the human economy

by electrical, thermometric, and morbid hygienic conditions quite apart from the action of marsh miasmata. He also brought forward a considerable mass of evidence to prove the possibility of arresting the course of continued fever by quinine. This work was well received by the Medical public, and the edition was rapidly exhausted; but it was never reprinted. The period for calm and repose had arrived, and Dr. Dundas, partly influenced by the ties of friendship, gave up his Liverpool position, and settled in London, at Gloucester-place, Hyde-park, in the year 1854. Here, in the bosom of his family, and surrounded by many attached and devoted friends, old and new, he spent the last years of an eventful life. He died of exhaustion following a severe and continued attack of sciatica, in his 80th year. He was an upright, conscientious, intellectual man, of firm will and unflinching resolve. He combined with a certain sternness of character so much warmth of affection and sympathy for those whom he esteemed and loved, that he exercised over them great and universal influence. He retained, also, until the end, a most extraordinary power of attaching to him those whom he honoured with his regard.

HENRY CURRAN, M.D., OF DUBLIN.

He was one of the Surgeons of the Mater Misericordiæ Hospital, and one of the Physicians of the North City Dispensary district. He died of malignant typhus, caught in the performance of his duties among the stricken and destitute. Two of his brothers had but just recovered from typhus.

NEW INVENTIONS.

ISINGLASS AND COLLODION STICKING-PLASTER.

We have received from Messrs. Ferris and Co., wholesale druggists, of Bristol, two samples of a plaster composed of isinglass and collodion—one black and opaque, and the other white and transparent. These plasters seem to us admirably adapted for their purpose. They are much thinner and lighter than any ordinary plaster, they adhere well and effectually, and are clean and elegant. We recommend our readers to try them.

MEDICAL NEWS.

University of Dublin.—In the degree lists of last week the following names were omitted :—

Bachelors of Medicine.

Courtenay, Edward Maziere. | Floyd, Thomas Sargent.
Morgan, John.

Mr. Comyn, though having passed the respective Examinations, has not yet graduated in Medicine and Surgery.

Apothecaries' Hall.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, June 29, 1871 :—

Clay, Charles, Childs'-place, Temple.
Goodson, William, Battersea-park.
Lithgow, Robert Alexander, Downpatriek, Ireland.
Maybury, Horace Mansell, Trimley, Surrey.
Morgan, Edward Rice, Llansamlet, Swansea.
Pinder, George Holtby, Ardwick and Ancoats Dispensary, Manchester.
Skaife, Frederic, Easingwold, Yorkshire.

The following gentleman also on the same day passed his first Professional examination :—

Scott, John Walter, Guy's Hospital.

At the recent competitive examination for the Prizes in Botany, given annually by the Society of Apothecaries to Medical Students who are in attendance on the second summer session of their Medical studies, the successful Candidates were—

First: Vines, Sydney Howard, of Guy's Hospital.—A Gold Medal.
Second: Skerritt, Edward Markham, of University College.—A Silver Medal and a Book.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Her Majesty in Council was this day pleased, by and with the advice of her Privy Council, in pursuance of the provisions contained in the 4th section of the 21st and 22nd Victoria, cap. 90, to appoint William Withey Gull, M.D., to be, for five years, a member of the General Council of Medical Education and Registration of the United Kingdom, in the place of Henry Wyldbore Rumsey, M.D., resigned.

Bloxam, John Astley, F.R.C.S. Eng.—Junior Surgeon to the West London Hospital.

Jones, Talfourd, M.B. Lond.—Physician to the Brecon County and Borough General Infirmary, *vice* Prestwood Lucas, M.D., M.R.C.P., deceased.

Marreco, Algernon Freire, M.A., F.C.S., Lecturer on Chemistry in the University of Durham College of Medicine, Newcastle-on-Tyne.—Chair of Chemistry in the College of Physical Science, Newcastle-on-Tyne, in connexion with the University of Durham.

Murray, Mr. Jardine, F.R.C.S.E.—President of the Sussex and Brighton Medico-Chirurgical Society.

Roberts, Dr. F. T.—Assistant Teacher of Clinical Medicine at University College Hospital.

Tatham, Mr. George, M.R.C.S., J.P.—Vice-President of the Sussex and Brighton Medico-Chirurgical Society.

Vernon, Bowater John, L.R.C.P. Lond., F.R.C.S. Eng.—Ophthalmic Surgeon to the West London Hospital.

Wiltshire, Alfred, M.D., M.R.C.P., Lond.—Physician for the Diseases of Women to the West London Hospital.

MILITARY APPOINTMENTS.

1st Foot.—Staff Surgeon Henry Kelsall, to be Surgeon, *vice* William Grantt, M.B., appointed to the Staff.

Medical Department.—Surgeon William Grantt, M.B., from 1st Foot, to be Staff Surgeon, *vice* Henry Kelsall, appointed to 1st Foot.

BIRTHS.

Miller.—On July 3, at Gloucester House, Southsea, the wife of J. W. Moore Miller, M.D., J.P., of a daughter.

Rhodes.—On June 26, at 5, Royal-terrace, Weymouth, the wife of Charles Rhodes, M.D., of a son.

Savery.—On June 27, at 12, York-buildings, Hastings, the wife of John Charles Savery, M.R.C.S., of a daughter.

Sequeira.—On July 2, at 34, Leman-street, E., the wife of James Scott Sequeira, M.R.C.S., etc., of a daughter.

Wadd.—On July 1, at Beaconsfield, Bucks, the wife of Dr. F. J. Wadd, of a daughter.

MARRIAGES.

Boulger—Denham.—On June 23, at the residence of Dr. Denham, 30, Merrion-square, Dublin, Edward Vaughan Boulger, B.A., only son of the late Percy Nihill Boulger, Esq., of Dublin, and grandson of the late Major Pierce Boulger, to Lizzie, second daughter of John Denham, M.D.

Creagh—O'Donnell.—On June 21, at St. Anne's, Edge-hill, Symon Pierse Creagh, of Bryan's Castle, county Clare, to Helena, eldest daughter of John O'Donnell, M.D.

Donaldson—Mackie.—On June 27, at St. Margaret's Chapel, Craig Ellachie, Banffshire, N.B., the Rev. Augustus Blair Donaldson, M.A., to Joanna Maria, younger daughter of the late Wm. Mackie, M.D., formerly of Bombay and Elgin.

Green—Symonds.—On July 1, at the parish church, Clifton, Bristol, Thomas Hill Green, Fellow of Balliol College, Oxford, to Charlotte Byron, youngest daughter of the late John Addington Symonds, M.D.

Kerr—Gibson.—On June 29, at St. Peter's, Onslow-gardens, South Kensington, Norman S. Kerr, M.D., Markyate-street, Beds, to Eleanor Georgina, only daughter of Edward Gibson, Esq., Ballinderry, county Antrim.

Klamborowski—Smith.—On June 29, at Clare, Suffolk, the Rev. L. Klamborowski, curate of Tilbury, to Frances Elizabeth, youngest daughter of R. T. Smith, F.R.C.S., of Clare, Suffolk.

Paterson—Andson.—On June 6, at Bahia, Brazil, Alexander Paterson, A.M., M.D., F.R.C.S.E., to Margaret Ann, only daughter of the late James Andson, Esq., of Arbroath.

Robinson—Smith.—On June 28, at St. Mary's, Hemel Hempstead, Nathaniel Wishart, eldest son of Dr. Robinson, Kennington-road, London, to Lucretia Ellen, second daughter of George Alexander Smith, of The Marlowes, Hemel Hempstead, Herts.

Southby—Woodcock.—On June 29, at Holy Trinity, Westminster, Anthony Gapper, younger son of Anthony Southby, M.D., of Bulford House, Wilts, to Eliza Cowdell, younger daughter of William Woodcock, Esq., of 67, Bessborough-street, Belgravia.

Swansborough—Duchesne.—On June 29, at St. Giles-in-the-Fields, William Swansborough, of 8, Versailles-road, Upper Norwood, to Eliza Maria, widow of Robert Duchesne, M.D., of Woodford, and youngest daughter of Joseph Gullich, Esq., of Guernsey.

DEATHS.

Barlow, Mary Georgina Florence, the fourth and only surviving child of Robert Barlow, M.R.C.S. Eng., at Norfolk House, Albion-road, Dalston, on July 2, aged 14 months.

Hunter, William, M.D., of Woodbank, late Surgeon-Major Coldstream Guards, at Largs, Ayrshire, N.B., in his 78th year.

Leahy, James W., Surgeon R.N., at Southsea, on July 3.

Vance, John Epworth, of the Middle Temple, eldest surviving son of the late George Vance, M.D., at 37, Westbourne-terrace, on July 1.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

Blackburn and East Lancashire Infirmary.—House-Surgeon; must be duly qualified. Applications and testimonials to the Secretary (marked "House-Surgeon") on or before July 18. The duties commence on July 28.

Brixton Dispensary.—Resident Dispenser. Applications and testimonials to Mr. Hollamby, 29, Branksome-road, West Brixton, S.W., on or before July 18.

General Hospital and Dispensary for Sick Children, Bridge-street, Manchester.—Resident Medical Officer; must have a Medical qualification and be registered. Applications and testimonials to the Secretary, on or before July 22.

Guisborough Union.—Medical Officer; must be duly qualified according to the General Orders of the Poor-law Board. Applications, with diplomas and testimonials, to William Weatherill, Clerk, on or before July 10.

Hospital for Sick Children, 49, Great Ormond-street.—Assistant-Physician; candidates must be Fellows or Members of the Royal College of Physicians of London. Applications and testimonials to be sent in on or before Wednesday, July 19.

Huddersfield Infirmary.—Physician; must be a Graduate in Medicine of one of the Universities of the United Kingdom, or a Fellow or Member of one of the Colleges of Physicians, and be duly registered. Applications and testimonials to John Marsden, Esq., Hon. Sec., on or before July 28.

Infirmary for Consumption and Diseases of the Chest, 26, Margaret-street, Cavendish-square.—Visiting-Physician. Candidates must be Members of the Royal College of Physicians, London. Testimonials to be forwarded on or before July 10.

Infirmary for Epilepsy and Paralysis, Charles-street, Portman-square, W.—Physician; must be a Member or Fellow of the Royal College of Physicians, London. Applications and testimonials to Mr. E. Watherston, Hon. Sec., on or before July 31.

Leeds Public Dispensary.—Junior Resident Medical Officer. Candidates must be unmarried, and possess at least one legal qualification. Applications, with testimonials, to be sent to Mr. John Horsfall, 31, Albion-street, Leeds, on or before July 15.

Metropolitan Free Hospital, Devonshire-square, City.—Assistant-Physician. Candidates must be Members of the Royal College of Physicians of England, or pledged to become such within twelve months if elected. Applications, with testimonials, diplomas, etc., to the Committee, on or before July 10.

Middlesex Hospital Medical College.—Lecturer on Physiology. Applications to the Dean on or before July 22.

Parish of Great Yarmouth.—Medical Officer for the North District; must be registered under the Medical Act, and possess the qualifications prescribed by the Order of the Poor-law Board. Applications, with testimonials, to John L. Cufaude, Clerk, on or before Monday, July 10.

St. Thomas's Hospital.—Resident Assistant-Physician. Candidates must be Members of the Royal College of Physicians, or Medical Graduates of a University of the United Kingdom, not less than 25 years of age. Applications to the Treasurer, at the Office, 13, St. Thomas's-street, S.E., on or before July 18.

Suffolk General Hospital, Bury St. Edmunds.—Physician. Applications and testimonials to the Committee, on or before July 17.

Warwick County Lunatic Asylum.—Assistant Medical Officer; must have both Medical and Surgical qualifications. Applications and testimonials to Dr. Parsey, at the Asylum.

Wirral Union.—Medical Officer for the Upton District. Candidates must have the qualifications prescribed by the General Orders of the Poor-law Board, and will be required to attend a Board meeting on the day of election, bringing their testimonials and diplomas. Residence within the district required. Election on July 12. Further particulars may be obtained of Mr. P. Gregory, 33, Hamilton-square, Birkenhead.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1861.

RESIGNATIONS.

Lewes Union.—Mr. Richard Turner has resigned the Lower District; salary, £45 per annum. He has also resigned the Workhouse; salary, £35 per annum—and the Workhouse for Children; salary, £10 per annum.

APPOINTMENTS.

Aysgarth Union.—Alfred Baker, M.R.C.S. Eng., L.R.C.P. Edin., to the Askrigg District.

Brackley Union.—John Farmer, M.R.C.S. Eng., L.S.A., to the Workhouse. Robert B. Hocter, M.B. and M.C. Univ. Dub., to the Brackley District.

Brighton Parish.—David Richards, M.R.C.S. Eng., L.S.A., to the Workhouse.

Tavistock Union.—Newbegin Kent, M.R.C.S. Eng., to the Beerferris District.

Mr. Grote bequeathed his valuable library to the London University.

The Prevention of Adulteration Bill has shared the fate of many other innocents, and has been withdrawn.

Dr. Gavin Milroy is about to leave this country for the West India Islands, being sent out by Government to undertake further investigations regarding leprosy.

The collections at Worcester on the 25th ult. ("Hospital Sunday")—the first adopted in that city—amounted to £439 6s. 8d.

Mr. C. Cowen, Deputy Inspector-General of Hospitals, is to succeed the late Dr. Telfer in Medical charge of the Military Prison at Gosport.

There was a rise in the mortality of Paris last week, which, however, is attributed to the large return of persons who had left during the rule of the Commune, and not to the prevalence of any epidemic.

The foot-and-mouth disease has broken out in East Cornwall. In Stoke Clemsland it has made its appearance on four farms.

John Singleton, a barman, of Liverpool, was fined 10s. and costs, at the Lancaster Police-court, on Saturday, for wilfully exposing himself in a public conveyance whilst suffering from small-pox.

Cholera has broken out among the regiments at Secunderabad. The 18th Hussars have suffered most, and have been moved into camp away from cantonments.

In a note upon the manner in which the death-rate is computed, the Registrar-General points out that the true interpretation of the diminished rate at which population has increased on the areas of towns within their ancient boundaries is the abolition of cellar and other dwellings, the erection of warehouses, factories, and offices, in the place of houses, the removal of families, and the increase of population taking place in the districts beyond the town limits.

A Mode of Propagating Small-pox.—At the last meeting of the Belfast Town Council, a discussion took place respecting the high death-rate of the town. Mr. Boag called attention to the evils resulting from the habit of "waking" the dead, and mentioned that small-pox had been very extensively propagated by this means.

Legion of Honour.—The Chief of the Executive Power, on the recommendation of the Minister of War, has just promoted M. Ricord to the grade of Grand Officer, M. Demarquay to that of Commander, and MM. Lunier-Ladger and Cusco to that of Officer, for their services during the siege of Paris. For similar services fourteen other Medical men have had the grade of Chevalier conferred upon them.

The general meeting of the Benevolent Medical Society, for the county of Kent, will be held at the "Ship" Tavern, Greenwich, on Wednesday, July 12 next, at two o'clock. Dr. William Carr, of Blackheath, is President; and Mr. John Moulden Burton, of Lee-park, the Vice-President of this Society. £1 1s. a year offers all the advantages of a life insurance, in addition to probable aid in sickness or disability. After the meeting the members will dine together at four o'clock.

One of the Medical officers of the ——— Union having received a circular with reference to the non-production of the Medical officers' books, forwarded his to the last meeting of the Board of Guardians, with a long entry in the column for observations, from which the following is an extract:—"The last time I had the honour of attending at the Board I took my book carefully filled up. Not a soul would take the trouble to look at it. I proposed to an intelligent guardian, well developed in the frontal region, that I should put a good-looking dummy in your possession, and leave the thing, and he thought I could'nt do better." A little further on he stated that "Mrs. Brooks has been suffering from one shilling and sixpence a week and old age combined." The facetiousness of the Medical officer roused the ire of one of the Board, who stigmatised it as "nonsense," but the others appear to have taken no notice of the effusion, except to laugh at it.

Professor Claparède.—This eminent Genevese zoologist died at Sienna on June 2, at the early age of 40, having long suffered from an affection of the chest. A pupil of John Müller, at his recommendation he undertook the investigation of the lower aquatic animal life, in which, like Sars, he acquired so distinguished a reputation. From these he has drawn many facts in support of Darwinism, of which he was an enthusiastic supporter. Fortified with all the learning of Germany, he wrote with the lucidity of an accomplished French scholar, and, in spite of his weakly state of health, he displayed remarkable energy in the pursuit of science. Even during the last two years, his works have been multiplied in a surprising manner, as if he were aware of his approaching end. Writing in French and German with equal facility, his communications have appeared in the most important serials of France, Switzerland, and Germany.—*Revue Scientifique*, July 1.

A Literary Loss at the Hôtel de Ville.—M. le Dr. Chereau, the distinguished Medical archæologist, has sustained a great loss at the recent conflagration. One of the projects of Baron Haussman, which he intended to carry on on the same colossal scale employed on his less laudable undertakings, was the production of a new "History of Paris, furnishing a detailed account of all its ramifications, institutions, professions, monuments, streets, and their transformation, etc." For this end he (furnished as usual with an unlimited command of funds) assembled around him a numerous body of *savants*, historians, archæologists, and artists; and at the time of the outbreak, this grand historical monument, which was to consist of many expensively illustrated volumes, was under

active execution. To M. Chereau was assigned the production of the "Histoire de l'Ancienne Faculté de Médecine de Paris," and he had entirely completed his manuscript, which, with more than 100 illustrations, was in the press. This interesting document has been entirely destroyed, although, fortunately, the illustrations, consisting of portraits, autographs, chromo-lithographs, etc., lying at the photograph establishment in another part of the town, were preserved. Of this laborious undertaking, which has occupied M. Chereau some years in its compilation, he has no copy; but with a courage which cannot be sufficiently admired, he states his determination to rewrite it from his notes.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Dr. A. S. Jayakar.—Your letter, with inclosure, has come safely to hand.

A Poor Patient.—No letter of recommendation is required.

Perplexed.—Avoid advertisers. The case is amenable to treatment. Any respectable Surgeon may be consulted.

An Indian.—Write to the Naval Medical Department, Somerset House, Strand, W.C.

Dublin.—We have no intention of entering on a discussion of the theological question with Dr. M'Cabe. We will only say that craniotomy is justified by the opinion of divines and theologians of the highest standing, by the Christian obligation of saving life, by the common sense of mankind, and by the law of the land. It is a great pity that religious differences should be allowed to influence elections to Medical offices.

Horse Allowance in India.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Can any reader of the *Medical Times and Gazette* inform me whether Medical officers serving in India and entitled to draw horse allowance are obliged to muster their chargers before that allowance can be obtained? I cannot help thinking that surely some order is in existence, or ought to be, allowing Medical officers in India, when they are entitled to allowance for several horses, to draw that allowance for horses which are not passed chargers. A Doctor has other duties to perform besides mere parade duties, and it seems to me very hard that he should not be allowed to draw a rupee of allowance for horses kept by him and employed in visiting the sick, simply because the animals so kept and used are not quite of the stamp that a colonel could certify to be passed chargers. Take the case of a Medical officer attached to royal horse artillery or cavalry. In all probability, one horse is sufficient for all his parade work. He will be entitled to allowance for two or three horses, according to his service. Why should he not be allowed to keep one or two strong ponies for going to Hospital and performing his other Medical duties, and be entitled to draw allowance for them? Surely visiting the sick is quite as important a duty as sitting on horseback on parade; and for the former purpose an expensive charger is quite unnecessary. A pony is, indeed, a great deal more suitable to hammer over the hard high road at any hour of the day or night than a valuable horse probably costing from £60 to £100. Many cavalry and royal horse artillery Medical officers can ill afford to buy three, or even two, horses at such a figure. If anyone knows of any order allowing Medical officers entitled to horse allowance to draw it for horses which are not passed chargers, I should be much obliged if he would kindly refer me to number and date, as nowadays the Indian pay department will not pay a rupee that they can dodge anyone out of.

I am, &c., Tattú.

P.S.—Tattú is the Urdu for pony. Thirty rupees (equal to £3) is the allowance per month for a passed charger.

Mesmer.—Baron Dupotet gave his first experiments in London on animal magnetism at the North London Hospital, in the autumn of 1837. A full account of these remarkable *séances* will appear amongst the "Reminiscences" at the proper time.

The late Dr. Epps.—The *Homœopathic Monthly Review*, quotes the sketch of the late Dr. Epps which appeared in one of Mr. Clarke's "Reminiscences." In some remarks upon it, the editor says the phrase "took to the practice of homœopathy" is one apt to suggest sinister motives. This was not the intention of the writer of the sketch; and it is only due to the memory of Dr. Epps to say that he was a thoroughly upright and conscientious man, however mistaken, and would not have practised homœopathy if he had not fully believed in it.

Professorship of Chemistry in the Royal Academy.—At the last dinner of the Royal Academy the President alluded to the steadily advancing deterioration of colour in many modern paintings, in consequence of which their value has been much impaired. This failure of colour is the more remarkable when contrasted with the perfect state of preservation of the paintings of the older masters, and is to be attributed chiefly to the knack of selection of materials and of mixing the colours in due proportions not having been handed down among the traditions of the art. To remedy this defect as far as possible, Sir F. Grant stated that it is the intention of the Council of the Royal Academy to appoint a Professor of Chemistry, whose duty it will be to lecture to the students on the properties of the mineral and organic materials used in the preparation of artists' colours. The idea is good, and, if efficiently carried out, it may be hoped that eventually the secret of mixing colours "with brains" may be restored to the world of art.

A Reader.—The second volume of Dr. Arnott's "Elements of Physics" was published nearly forty years after the appearance of the first. Nearly the same period occurred between the publication of the first and last numbers of Dr. Copland's "Medical Dictionary."

*** The following letter has been sent us for publication. It is addressed by Dr. Rogers, the President of the Poor-law Medical Officers' Association of England and Wales, to the Honorary Secretary of the Poor-law Medical Officers' Association of Ireland:—

33, Dean-street, Soho, July 1, 1871.

Dear Sir,—I am directed by the Council of this Association to write and inform you that Mr. Corrance, M.P. for East Suffolk, who has recently been making a tour in Ireland, for the purpose of investigating your system of general and Medical poor-relief, will, in the course of the present month, bring the question of the laws relating to the poor of England and Wales before the House of Commons, and (*inter alia*) propose a resolution—"That the Dispensary system, subject to certain modifications as to the abuse in the issue of tickets to persons capable of paying for Medical attendance, etc., shall be generally adopted in this country.

It has always been one of the cardinal objects of this Association to secure that all medicines and appliances needed for the sick poor should be supplied either from the rates, or from funds furnished from Imperial sources; and as, by the provisions of the Medical Charities Act, the Medical officers in Ireland are spared the degradation of finding such drugs from their stipends, which stipends in this country are ofttimes obviously insufficient to pay even the cost of such drugs, and from which cause, as well as from the fact that the importance of rendering Medical relief in England and Wales efficient has, ever since the enactment of the new Poor-law of 1834, been almost wholly disregarded, whereby the service was discredited, and discontent exists so strongly that 10 per cent. of the Medical officers annually resign their appointments, and large numbers of the remainder originally seek for, and subsequently retain, such appointments solely on account of its bearing on either their obtaining, or on the preservation of, their private practice.

The great extent to which expenditure on pauperism in England, Wales, and Scotland has expanded during the last twenty years has caused public attention to be directed to this subject, and since that time an opportunity has been afforded of contrasting the system of Medical relief in the United Kingdom with that which has existed in Ireland since the enactment of the Medical Charities Act, whereby it has been shown conclusively that whilst such expansion of expenditure has been with us almost continuous, yours has materially diminished; and whereas it has also been clearly exhibited that such lessened outlay is traceable, if not wholly, certainly in great part, to the improvement in the health of the poor, as proved by the marked diminution of epidemic disease and the lowering of your general rate of mortality.

The importance of a more efficient system of Medical relief is beginning to dawn on the English public, and we look forward with much confidence to the impetus which will be given to the question by the discussion about to take place in Parliament; but our Council feel that it would be matter of much regret if this opportunity should be lost of putting on record the opinions of such representatives as Sir Dominic Corrigan, Sir John Grey, Messrs. Brady, Gregory, Mitchell, Henry, and others who may be known to you; and I am respectfully, but earnestly, to request that the kind offices of the members of your Association may be exerted in urging on these gentlemen the advisability of not only being present, but supporting Mr. Corrance's motion.

In conclusion, I may be permitted to observe that, should your system be hereafter introduced into this country, it would tend to our mutual benefit if some of your representatives were to point out the blots of the Dispensary system, whilst enlarging on the social and economic advantages which have sprung from the efficiency of your Poor-law Medical relief arrangements. I have the honour to be yours truly,

J. Rogers,
President of the Poor-law Medical Officers' Association of England and Wales.

Dr. Maunsell, Hon. Sec. Poor-law Medical Officers' Association, Ireland.

British Medical Association.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I shall feel obliged by your publishing the inclosed letters, supplemental to those which, by your courtesy, appeared in these columns last week. I am, &c., Sampson Gamgee.

18, Broad-street, Birmingham, July 4.

"To William D. Husband, Esq., F.R.C.S., J.P., President of the Council of the British Medical Association.

"My Dear Sir,—As President of the Committee of Council by whom the editor of the *British Medical Journal* is appointed, I beg to call your attention to an article which he has appended to my correspondence with you, published in this day's journal. I am referred to in that article as 'representing locally other journalistic interests,' and further on allusion is made to my 'journalistic clients' and to the 'journal I represent.'

"In so far as the expressions quoted tend to convey that I am the representative of, or in any way connected with, any Medical or other journal or newspaper, they are positively and wholly untrue.

"You have raised an issue in your official capacity, as the chief executive officer of the British Medical Association, by proposing alterations in nearly one-half of its laws. As a member of its Council, I addressed you officially, on the broadest public grounds, on that issue, and, so far as I am concerned, the discussion shall be conducted with the most faithful observance of those rules which make a free expression of difference of opinion possible amongst gentlemen.

"I abstain from expressing any opinion on the judgment, taste, and discretion displayed by your subordinate officer in commenting on our correspondence in the terms quoted; but I submit for your consideration whether the editorial article in question does not furnish additional evidence against the expediency of further centralisation of power in the British Medical Association. "I am, Dear Sir, faithfully yours,

"Sampson Gamgee.

"18, Broad-street, Birmingham, July 1, 1871."

"36, Bortham, York, July 3, 1871.

"My Dear Sir,—I beg to acknowledge the receipt of your letter in which you complain of the article appended to our correspondence in the *British Medical Journal*, and to assure you that the Committee of Council have no

intention of giving increased power or influence to the editor of the journal in the management of the Association.

"Believe me very truly yours, W. D. Husband.

"S. Gamgee, Esq., F.R.C.S."

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—If you indulge Mr. Gamgee with the publication of his further correspondence with the President of Council, I must ask you to insert this letter, and thus to allow me, on my part, to throw a little further light on the facts. The comment, of which Mr. Gamgee now warmly impeaches the accuracy, was forwarded to him in proof for his observations. If it contain any error of fact, he is directly responsible, for he had an express and unusual opportunity afforded to him by my courtesy of correcting such error. I accept the responsibility of the discretion and good taste of what I wrote; and of these points Mr. Gamgee will hardly, after this explanation, appear to be a perfect judge; but it may be right to state that the comments were also forwarded to the President of Council before they appeared, and have been approved by him. I find a difficulty in believing in the reality of an indignation, of which it lays so easily in Mr. Gamgee's power to avert the occasion.

I am, &c.,

The Editor of the "British Medical Journal."

*** We have published these letters at the request of their respective writers, but we can insert nothing more on the subject.

COMMUNICATIONS have been received from—

Dr. Russell; X. X.; Dr. F. R. Hogg; Mr. Arnison; Dr. Woodward; Mr. W. Stanyea; Mr. S. T. Knaggs; Dr. Navratil; Dr. Letheby; Dr. Vinen; Dr. Talfourd Jones; Mr. Sequeira; Mr. Wilson; Mr. Sampson Gamgee; Dr. Parsey; Dr. T. Gidson; Dr. Wiltshire; Mr. C. Broore; Dr. Dowse; Mr. J. Chatto; Dr. J. W. Moore; Dr. F. Porter Smith; Dr. Day; Mr. T. Murphy; An Indian; Mr. Jardine Murray.

BOOKS RECEIVED—

Hunt on the Skin, ninth edition—Dr. Hammond's Treatise on Diseases of the Nervous System—Die Uebertragung der Syphilis durch die Vaccination, by Dr. Heinrich Kübner—The Medical Jurisprudence of Insanity, by Balfour Browne—Half-yearly Abstract, vol. liii.—Women and Doctors; or, Medical Despotism in England—Report on the Sanitary Condition of Birkenhead—Preliminary Report and Tables of the Population and Houses enumerated in England and Wales and in the Islands in the British Seas.

PERIODICALS AND NEWSPAPERS RECEIVED—

Quarterly Journal of Microscopical Science, No. 43—British and Foreign Medico-Chirurgical Review, No. 95—Medical Temperance Journal, No. 8—The Milk Journal—Science Gossip—Worcestershire Chronicle—Philadelphia Medical Times—Gazette Hebdomadaire—Pharmaceutical Journal—Mechanics' Magazine—Dark Blue—Monthly Microscopical Journal—Mental Journal—Edinburgh Medical Practitioner—Birmingham Morning News—Camden and Kentish Towns Gazette—The Porcupine—Quarterly Journal of Science, No. 31—Medical Press and Circular—Brighton Examiner—Popular Science Review, July—Westminster Review, July.

APPOINTMENTS FOR THE WEEK.

July 8. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.

10. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.

11. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.

12. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.

13. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; West London, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.

14. *Friday.*

Operations at Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.

VITAL STATISTICS OF LONDON.

Week ending Saturday, July, 1 1871.

BIRTHS.

Births of Boys, 1099; Girls, 1061; Total, 2160.
Average of 10 corresponding weeks, 1861-70, 2011·8.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	678	650	1328
Average of the ten years 1861-70	657·4	605·6	1263·0
Average corrected to increased population	...	...	1389
Deaths of people above 90	...	...	...

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	458125	12	2	3	1	9	...	1	1	10
North ...	618210	111	4	5	...	7	2	6	...	10
Central ...	383321	6	2	...	1	5	...	...	...	4
East	571158	31	...	2	1	11	1	2	3	12
South... ...	773175	75	7	6	5	4	1	2	3	10
Total	2803989	235	15	16	8	36	4	11	7	46

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·799 in.
Mean temperature	56·6°
Highest point of thermometer	72·2°
Lowest point of thermometer	40·0°
Mean dew-point temperature	48·0°
General direction of wind	N., W.S.W., & S.S.W.
Whole amount of rain in the week	0·05 in.

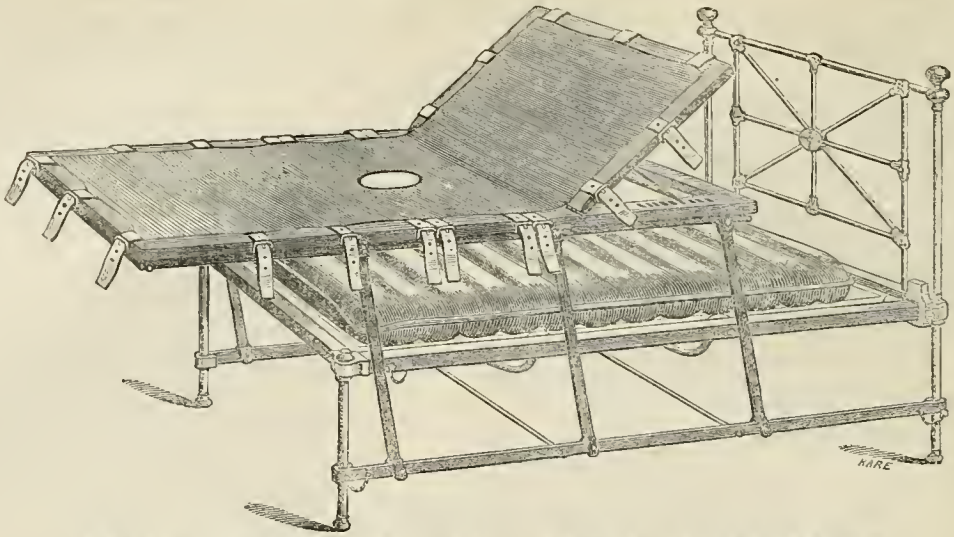
BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, July 1, 1871, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1871.*	Persons to an Acre. (1871.)	Births Registered during the week ending July 1.	Deaths Registered during the week ending July 1.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3263872	41·8	2160	1328	72·2	40·0	56·6	13·66	0·05	0·13
Portsmouth ...	113450	11·9	75	28	71·2	41·2	56·5	13·61	0·02	0·05
Norwich	80533	10·8	61	22	72·5	38·8	54·6	12·55	0·37	0·94
Bristol	183298	39·1	109	72	...	...	...	...	...	...
Wolverhampton ...	68476	20·2	62	22	70·0	39·4	54·9	12·72	0·29	0·74
Birmingham ...	344980	44·1	248	133	68·6	40·8	54·3	12·39	0·06	0·15
Leicester	95882	30·0	97	29	74·2	37·7	55·8	13·22	0·14	0·36
Nottingham ...	86929	43·6	63	29	71·6	36·8	55·2	12·89	0·16	0·41
Liverpool	493649	96·8	412	278	69·3	45·2	56·6	13·66	0·24	0·61
Manchester ...	356099	79·4	300	183	73·2	42·0	56·7	13·72	0·39	0·99
Salford	125422	34·3	100	57	71·0	40·8	55·1	12·83	0·56	1·42
Bradford	146987	22·3	122	58	69·0	43·5	55·3	12·94	0·43	1·09
Leeds	260657	12·1	249	95	69·0	42·0	53·7	12·06	0·37	0·94
Sheffield	241507	10·6	221	112	71·8	38·0	54·7	12·61	0·19	0·48
Hull	122266	34·3	92	49	73·0	34·0	53·3	11·84	0·48	1·22
Sunderland ...	98797	29·9	100	95	...	...	...	...	...	...
Newcastle-on-Tyne	128677	24·1	91	70	...	...	...	...	...	...
Edinburgh	201728	45·6	141	112	65·7	39·0	54·6	12·55	0·40	1·02
Glasgow	479227	94·7	390	302	65·8	43·6	56·0	12·33	0·92	2·34
Dublin (City, etc.)	322321	33·1	†171	†121	68·9	38·2	56·7	13·72	0·13	0·33
Total of 20 Towns in United Kingd'm	7215757	33·8	5264	3195	74·2	34·0	55·3	12·94	0·31	0·79

At the Royal Observatory, Greenwich, the mean reading of the barometer in the week was 29·80 in. The highest was 30·10 in. on Monday at 9 a.m., and the lowest was 29·51 in. on Wednesday at 9 a.m.

* The figures in this column are the unrevised numbers enumerated in April last, raised to the middle of the year by adding 1-40th of the rate of increase which prevailed between 1861 and 1871; the numbers for Edinburgh and Glasgow have been furnished by the Registrar-General of Scotland, while those for Dublin are still the estimated numbers recently used.

† No return has been received from Dublin this week; an average of the numbers in the three previous weeks have been inserted to make up a total for the twenty towns of the United Kingdom.



HOOPER'S PATENT
ELEVATING BED & WATER MATTRESS,

Combining the advantages of the Water Mattress with a ready method of lifting an Invalid, for the use of the Bed Pan, Ablutions, Elevating the Back and Head, Ventilation and Adjustment of the Bedding, &c., &c.

The principle of this Elevating Bed being the simple lever, without pulleys, cranks, or wheels, the invalid is raised from the Water Mattress, or again replaced with great facility.

Much pain and exhaustion are thus spared to the invalid, and the attendant's labour is materially lightened

7, PALL-MALL EAST, LONDON.

CHLORODYNE.

SPECIAL NOTICE.

The absurd statements that have recently appeared in Medical and other Journals respecting the constituents of Chlorodyne (each analysis differing widely), J. T. Davenport is compelled to further CAUTION the Profession against using any Compound under the name of Chlorodyne but the genuine, which alone has gained such extraordinary celebrity.

J. T. Davenport appends Medical testimony in confirmation of the above.

The wonderful efficacy of Chlorodyne being universally acknowledged, it must be evident to all that the assumption of the name to any other Compound than the Genuine is not only improper, but unprincipled, as it is liable to injure the health of the Patient and cause discredit to the Physician. Even death has resulted from the use of spurious Chlorodyne when benefit had been previously experienced from the genuine; and this melancholy circumstance has no effect in restraining these heartless proceedings.

From Dr. J. WILSON, Castleton, Yorkshire.

"I require to use a considerable quantity of Chlorodyne in cases where no other medicine is of the least avail; and my object in wishing a supply from your own establishment is that I am frequently deceived by getting a *Spurious* article from other places, although I never order anything but the genuine Browne's Chlorodyne."

From JAS. ATKIN, M.D., Medical Officer, Fever Hospital, Oldcastle, Co. Meath.

"Having ordered from our Druggists "Chlorodyne," I was not only *disappointed in its effects*, but annoyed when I received a spurious compound. I have been in the habit of using your Chlorodyne with great advantage to my patients and satisfaction to myself."

From F. E. BARTON, Esq., Surgeon, Dover.

"I have now used your Chlorodyne in numerous cases, and have much pleasure in adding my testimony to its very great efficacy as an Antispasmodic and Anodyne, having found it especially valuable in those cases in which Opium does not agree well with the patient."

From Thomas F. Hale, Esq., Surgeon, Saundersfoot, Pembrokeshire.

"Sir,—I should be much obliged by your forwarding three bottles of Dr. J. Collis Browne's Chlorodyne, which I have found most useful in allaying pain. I have used twelve ounces of it, and, in nearly every case in which I have employed it, have every reason to be satisfied with the result; and although I object, as a rule, to use any preparation of a secret nature, and whose composition I am not fully acquainted with, still, having once tried the Chlorodyne, and found that it really did produce the effects stated, I do not think I should be justified in withholding such a preparation from my patients, when I see the value of the remedy."

From Lord FRANCIS CONYNGHAM, Mount Charles, Donegal, December 11th, 1868.

"Lord Francis Conyngham, who, this time last year, bought some of Dr. J. Collis Browne's Chlorodyne from Mr. Davenport, and has found it a most wonderful medicine, will be glad to have half a dozen bottles sent at once to the above address."

"Earl Russell communicated to the College of Physicians that he received a despatch from Her Majesty's Consul at Manilla, to the effect that Cholera has been raging fearfully, and that the ONLY remedy of any service was CHLORODYNE."—See "The Lancet," 1st December, 1864.

CAUTION.—Vice-Chancellor Sir W. Page Wood stated that Dr. J. Collis Browne was undoubtedly the Inventor of CHLORODYNE, that the whole story of the Defendant was deliberately untrue, which, he regretted to say, had been sworn to.—See "Times," 13th July, 1864.

The Sole Manufacturer of Dr. COLLIS BROWNE'S Chlorodyne is

J. T. DAVENPORT, 33, Great Russell-street, Bloomsbury-square,

Who alone received the Recipe, and who is the Only Authorised Maker.

MEETING OF THE GENERAL MEDICAL COUNCIL.

HELD AT 32, SOHO-SQUARE.

THIRD DAY.—THURSDAY, JULY 6.

WE furnished last week a brief outline of this day's proceedings, of which we now give a fuller report.

Dr. PARKES moved a resolution, which in the course of the debate was modified in its terms, and finally put as follows:—"That it is desirable that the instruction in pharmacy should be separated from that in therapeutics, and that the former should be obtained at an early, and the latter at a later period of the Professional curriculum." He said that probably there was no teacher in Europe to whose opinion the Council would attach greater importance than it would to that of Dr. Christison, who, in his treatise on Medical education, strongly advised the separation of the teaching of pharmacy from the teaching of therapeutics; and another authority of great weight, in support of the same system, was also present in the Council, Dr. Aquilla Smith. With regard to pharmacy, there was a point in the report of some importance—viz., that instruction should be made more tutorial, so to speak. The Council did not wish to go too much into details, and therefore it was thought sufficient to bring the subject in a general way before the educational bodies. The course of instruction followed in Aberdeen was alluded to in the report for the purpose of showing that the theory could be carried out in practice. Dr. Harvey had furnished him privately with a report on the subject, which he hoped would be printed; therefore, he would not attempt to describe that professor's scheme for fear of doing it injustice. The result of it was that in the most simple manner, and in a mode which was very agreeable, the students had been taught, not only the character of drugs, but how to make up their own prescriptions, and had acquired a knowledge far superior to that which is ordinarily obtained in shops, to which heretofore they had been sent by the University.

Dr. CHRISTISON, in seconding the resolution, said that Materia Medica in its ancient signification included both the outward history and character of medicines, the mode of preparing them for use, and also their action, so far as these things were known in ancient times. To this was afterwards added the subject of dietetics; and for a long time Materia Medica was understood in that extended sense. The universities of Scotland had taken their system very much from the Dutch school, in which many of the most illustrious Physicians of this country were formerly educated, in part at least; and the students of those universities had always taken a very great interest in the subject now before the Council. He was very much surprised when he entered the Profession to find that the London Society of Apothecaries gave instruction in what was now understood as therapeutics to the students in their first year. Now, it was quite clear that a very important part of therapeutics could not be understood until a very advanced period—in fact, not until the last portion of the Professional course. It being now understood that Materia Medica embraces the two great branches of pharmacy and therapeutics, and that under therapeutics the professor would deal with diet and regimen, as well as Medicine, he would say a word or two with regard to each of those branches. Some Surgeons and Physicians of high authority contended that pharmacy had attained such perfection in the hands of pharmaceutical chemists that Practitioners might leave it unstudied; but those who held that opinion seemed to forget that many Practitioners, not only in country places, but in the army and navy and the East Indian services, had no alternative but to practise pharmacy. A great responsibility in this respect was attached to them, and therefore it was necessary that they should know something of the mode of distinguishing the characters of drugs, and also how to administer them. It was of great importance that pharmacy should be taught practically; and, if so, increased accommodation would be required. His view was that the lectures should not be very numerous, but should be interspersed now and then with practical illustrations by an able dispenser. With regard to therapeutics, some men of ability held the opinion that it need not be a separate subject of study. They had no faith in therapeutics; and no wonder, when the way in which they had been taught that science was considered! He declined to say anything specific upon the subject of defective teaching in this respect; but he was quite certain that the subject was greatly neglected in many schools, and to that neglect was to be ascribed, to a great extent, the contempt for the science expressed in some quarters. Those who would enter properly into the subject would find it most attractive; and it was a science in which research would be rewarded by valuable discoveries. Pathology, to which so much attention had been paid during the last fifty years, was now in a very great measure worked out, and there was not the same room for inquirers to make discoveries; therefore, let men of ability, who were anxious to make valuable additions to Professional knowledge, turn their attention to therapeutics. As to its place in the course, certainly it should be about the last study in which a student should be engaged, because no one could study it to advantage until he was well acquainted with chemistry, pathology, and the treatment of diseases; and as it was the most advanced, so it was the most important, of all branches for the Physician and the Surgeon so far as regarded Medical treatment; for what would be the use of the most brilliant inventions in pathology, and the most accurate diagnoses of disease, unless they had effectual remedies to apply? (Cheers.)

Dr. MACROBIN observed that very often a man who entered a Hospital knew nothing of drugs, and was consequently placed at a great disadvantage, as he could not understand what was going on in the wards. It was therefore necessary that pharmacy should be taught very early in the course—as soon as the student had gone through a course of chemistry—and therapeutics should come after a systematic course on the practice of Medicine. Dr. Harvey had the advantages of ample accommodation for the working of his scheme, and of scientific assistants, so that their students were not likely to introduce incompatibles into their prescriptions, as was too often the case with men who did not understand practical pharmacy. Dr. Harvey was quite enthusiastic about his scheme, and found that it worked admirably. He (Dr. Macrobin) had to teach the science of therapeutics, and he gave a systematic course of lectures teaching the action of drugs which he prescribed. He entirely approved of the resolution.

Dr. HUMPHEY moved as an amendment:—"That practical instruction in pharmacy may with advantage be substituted for formal lectures on the subject, and should be attended at an early period of the Medical curriculum; and that instruction in therapeutics should be conducted at a later period of the Professional curriculum, either by a special course of lectures, or as an essential part of the courses of lectures on Medicine and Surgery." Whilst he was in favour of separating pharmacy from therapeutics, he feared that the course proposed by the resolution would add to the burdens of the students, as it seemed to contemplate the establishment of a separate course of lectures on these subjects as obligatory upon the Licensing Bodies. No more grievous alteration could be made in the Professional curriculum than an addition to the number of courses of lectures. When he was a student, although the course was more limited, he was obliged regularly and systematically to neglect certain courses in order that he might study to the best advantage; and he strongly felt that, to increase the number of lectures, would be to interfere seriously with the success of the examinations, upon which the Council justly laid such stress. The science of therapeutics was confessedly the most difficult of all the sciences with which they had to deal, based as it necessarily was upon recondite physiological observations which were at present in their infancy; therefore, he could not think it advisable to make a special course on therapeutics compulsory. In reality, the study of that subject would be better pursued in connexion with Medicine and Surgery in the wards and in the practical lectures; therefore, he could not vote for a measure which would so unnecessarily add to the burdens of the students.

Dr. APJOHN seconded the amendment. He was strongly opposed to the scheme of separate lectures on therapeutics. It would require an addition to the staff of professors, which was altogether impracticable.

Dr. ANDREW WOOD said that whilst the Council did not wish to add unnecesarily to the burdens of the students, it should be remembered that one of their great duties was to diminish the burdens of the patients, and unless the *summum bonum* of all their instructions were obtained, that of curing and preventing diseases, they would fail in accomplishing the object for which they existed as a Council. But, in truth, the fear was groundless; for the burdens of the student would be diminished instead of increased by the plan proposed; because, at present, they were required for a long period to attend a laboratory or dispensary for the purpose of learning pharmacy, and if this scientific and systematic instruction in practical pharmacy were introduced at an early period, the future course would be much more easy. At the present time the examinations upon Materia Medica,

which included therapeutics, were conducted at a period of the course when it was utterly impossible that any professor could put proper questions, or that a student could give proper answers. In his opinion, pharmacy should be one of the earliest studies after chemistry, and therapeutics should be the coping-stone to be put on the whole. (Hear, hear.)

Dr. Aquilla Smith thought the amendment had the great advantage over the resolution of leaving perfectly free the means of carrying out the great reformation they all desired. As a teacher, he had found that it was a great waste of time to be trying to make students understand therapeutics in their first year, before they could possibly have acquired a knowledge of diseases, or even of the character and constitution of drugs, so as to fit them to prescribe the most ordinary remedies in the Pharmacopœia. As an examiner in Materia Medica in Dublin, he was necessarily debarred from examining the students in therapeutics, because the examination took place before the students could thoroughly recognise the diseases which it was their business to cure. At present he believed it to be almost impossible for a Medical student in Ireland to acquire a practical knowledge of pharmacy except by entering himself as a pupil for six months to the Apothecaries' Hospital, or by engaging himself for one or more sessions as assistant to a Medical Practitioner who kept a shop for the compounding of drugs; but even then he was not taught the character of drugs or the means of detecting spurious drugs, which was so important a branch of knowledge. As to the scheme of separate lectures, it was impossible that practical pharmacy could be taught in the usual course of lectures on Materia Medica, and it would involve much less labour on the part of the student himself if he attended for three or four months a school of pharmacy. At the present time some students thought they were doing wisely by committing the Pharmacopœia to memory—(laughter)—and to perfect themselves in Materia Medica they tried to commit to memory the characters of drugs, instead of going into the museums and there studying them.

Mr. Hargrave opposed the motion, principally on the ground that it was not desirable or practicable to increase the staff of professors.

Dr. Allen Thomson said that they should be cautious in introducing alterations. There was some uncertainty as to the meaning of the word "therapeutics," but as used in the resolution he understood it to apply to the general principle of the action of the remedies. He regarded therapeutics as a whole as the principles and practice of Medicine—the principle on which remedies were applied to diseases in general or to special diseases. He quite approved of the separation of practical pharmacy from therapeutics, and of the respective periods at which it was proposed to teach them; but he felt strongly that the mode of instruction should be left perfectly open to the schools. The way in which the Council could best carry out its object would be by the examinations.

Dr. Sharpey, in support of the resolution, expressed his belief that the contemplated scheme would not increase the number of lectures.

Sir Dominic Corrigan inquired what was meant by "instruction in pharmacy." If it meant that pharmacy was to be taught by a course of lectures, he would oppose the resolution, because it was downright nonsense to suppose that a man could be taught to make up a pill or a draught by walking into a lecture-room.

Dr. Parkes was sorry that Sir Dominic was not in the room when the meaning of "instruction in pharmacy" was explained by preceding speakers. What had been said would meet the views of Sir Dominic; and, as there was really nothing that called for a reply in the observations that had been made, he would now propose that the opinion of the Council should be taken.

The amendment was put and negatived, and the resolution was then carried by a large majority.

Midwifery.

Dr. Parkes moved—"That it is desirable that the course on midwifery should be extended, and that every candidate for a licence shall be required to attend not less than twenty labours." He said that the evidence brought before the Council made it clear that the course should be extended. Answers had been received from twenty of the most experienced teachers in the kingdom, and, with only one or two exceptions, all stated that it was absolutely impossible to do justice to the subject in the limited time devoted to it. It was a subject which included to a considerable extent the practice of Medicine, because the course on midwifery had always comprehended instruction in the peculiar diseases of women and children, as to which students of the present day were less trained than used to be the case. In answer to the question of how many lectures were necessary to make the student fully acquainted with the subject, most of the lecturers had said that it could not be done in less than a five or six months' course or a two summers' course; and none of them put it at less than eighty lectures. Twelve London teachers of midwifery jointly signed a paper, in which they remarked very strongly indeed upon the very small number of lectures now assigned to this subject. As to the number of labours mentioned in the latter part of the motion, it was right to say that the Committee (after some dissension) put in that figure as a sort of compromise, in reality leaving the Council to settle the number. A professor in Dublin had recommended thirty, an Edinburgh teacher said ten were sufficient; and Dr. Farre and the whole of the London teachers were of opinion that a student should attend not less than twenty. The College of Physicians of London also required attendance on twenty labours before they give their licence. It was hardly to be supposed that the desire of teachers of midwifery to extend the course was prompted simply by the wish to teach the subject thoroughly; but it must have arisen from the feeling that the time now devoted is not sufficient for the purpose.

Mr. Hargrave seconded this.

Dr. Humphry was of opinion that it would be better to leave this subject to the licensing bodies. He felt the same objection to this as he did to the former resolution—viz., that it would add to the number of lectures, which was *primâ facie* a great evil, and sure to result in superficial instruction. As to the number of labours, he thought it was a most unwise proposal to make twenty the minimum. Without undervaluing the experience obtained in midwifery by attending cases, he believed that the amount of information gained after the first few cases was by no means proportionate to the time spent. Then in London, especially, it would be very serious to require a student to pay as many as twenty visits to the dens where they have to go, subjecting themselves to all kinds of annoyance and inconveniences.

Dr. Alexander Wood inquired whether this proposal had been sent down to the Licensing Boards for their opinion?

Dr. Parkes referred to page 215 of the Report of the Committee on Professional Education (1869), where the paper signed by twelve London lecturers on midwifery stated—"At present, one summer course of three months only is required. It is found to be impossible in such a course to treat adequately of the subject of midwifery proper; whilst the extensive and important subjects of the diseases of women and children must be left untouched." That was the opinion of those best qualified to speak on the subject; and the Court of Examiners for the Apothecaries' Society said—"The Court are thoroughly of opinion that the period allotted to the study of midwifery should be extended." Then the report from the Royal College of Surgeons said—"In the opinion of the Council, the period for the study of midwifery may be extended with advantage."

Dr. Alexander Wood said that the whole tendency of the Committee's report was to substitute the teaching by lecture for that kind of practical teaching which formerly was more common, and was in many respects a much better system. He thought that midwifery was quite sufficiently attended to in the schools at present, and he agreed with Dr. Humphry that the time consumed in attending labour cases, after the first few, might be better employed, because a student might have to attend a great many more than twenty labours before he met with any case that presented any extraordinary features; and for all ordinary cases as much might be learnt from ten visits as from twenty. Intelligent students already complained of the amount of time they had to spend listening often to very dreary lectures, and the Council ought not to increase the number without very good cause.

Dr. Macrobin moved as an amendment—"That it is desirable that instruction in midwifery should be extended beyond three months, so as to embrace instruction in the diseases of women and children, and that every candidate for a licence should be required to attend not less than ten cases of labour."

Dr. Christison said that the Universities of Scotland required five months' attendance on lectures on midwifery. He did not know whether attendance on any particular number of labour cases was also specified, but he quite agreed that twenty were not necessary.

Sir D. Corrigan thought that the regulations should be left altogether to the Licensing Bodies. Circumstances differed very much. In some cities there were large lying-in Hospitals, in others there were none, and the same regulations could not be applied with advantage to all places. Another

objection to the scheme was that ten pupils might be brought round the same woman when she was in labour, so that there would be two hundred certificates for twenty cases. What guarantee had they that that would not be done? It was the direct interest of the midwifery teacher to sell as many certificates as he could, and he did not see what there was to prevent one case giving out twenty or even fifty certificates. He did not care much about the recommendations of these lecturers in a matter where their pecuniary profit was so largely concerned. The only way of satisfactorily testing a man's knowledge was to examine him, and certificates were often not worth the paper they were written upon.

Dr. Andrew Wood, in seconding Dr. Macrobin's amendment, said that the College of Surgeons in Edinburgh required attendance on six labours. Perhaps that was too small a number, but he did not see how it was possible to supply a student in Edinburgh with the opportunity of attending twenty labours. Since the course of Midwifery had been reduced to three months it was impossible to include instruction in the diseases of women and children. Some said that those peculiar diseases might be taught by the Professor of Medicine, but that Professor turned round and said he had no time for it. The consequence was that many men went into practice without being properly trained in that important subject, and he would ask whether such a man was fit for the position of a parochial Surgeon?

Dr. Stokes thought that some of the preceding speakers forgot that there were books which, to a large extent, had taken the place of lectures. He believed that all these resolutions were in the wrong direction. It mattered little how many cases of labour a student attended. Ten might give him as much knowlege as fifty.

Dr. Bennett objected to allocate the diseases of women and children to special professors. In all the Hospitals and large schools there was abundant opportunity for students learning in the wards all that was peculiar in these cases. The fact was that the midwifery teachers wanted to absorb into their own department every Surgical operation on the female body, and the treatment of every disease that occurred in the female constitution, and also the diseases of children.

Dr. Quain said that it seemed absurd to prescribe the length of any course of lectures, as so much depended on the teacher. One man could communicate as much knowledge in three months as another could in three years. He would mention that a student took very high honours in the University of London who never attended a midwifery course in his life, and had not visited six cases.

Dr. Fleming advocated practical instruction in preference to lectures. Attendance on labours was worthless unless the student was accompanied by a skilled Accoucheur.

Mr. Quain knew one of the most experienced teachers of anatomy, who held that his lectures on anatomy were of very little value. One fallacy lying at the bottom of the scheme proposed was that it trusted too much to lectures, and another was that it put too little confidence in the student. He believed that the young men of the present day were as zealous as the students of former days. In France and Germany attendance was not obligatory on any one course; all lectures were open to the student, who attended which he thought proper, and the lectures of men who really could teach were always crowded, whilst those of professors who could not teach were almost deserted. Another objection he felt to the proposition was that nearly every Hospital now had wards in which the peculiar diseases of women and children were studied, and it would not be right to ignore that fact by assigning the subject to a professor of midwifery exclusively.

Dr. Parkes, in reply, observed that what had been objected by Sir D. Corrigan would apply to certificates of every kind. If a teacher took 100 pupils to a case of labour and gave each one a certificate, such certificate would be a false one; and the same sort of thing might be done under any system. As to the objection raised on the ground of adding to the lectures, he believed there was hardly a member of the Council who had not both spoken and written against the practice of over-lecturing; and he did not think that such a result would follow. A rearrangement in other particulars would take place. The evil now was that subjects were supposed to be taught which were not taught—namely, the diseases of women and children. He was quite willing to alter the twenty into ten, and to add words relating to the peculiar diseases he had mentioned.

The President thought it better that Dr. Macrobin's amendment should be put.

This was done, and the amendment was lost.

Dr. Andrew Wood then moved, and Dr. Macrobin seconded —"That it is desirable that the instruction in midwifery should be extended, and that every candidate for a licence should be required to attend not less than ten labours."

This was also lost.

The original motion was then put, and shared the same fate as the two amendments.

Pathological Anatomy.

Dr. Parkes moved—"That it is desirable that instruction in pathological anatomy should include a certain number of systematic lectures." It would surprise the Council, he said, if they knew how very ignorant men were on this point. The object of the Committee in proposing this was to ensure that pathological anatomy should be carefully taught; and, so far from adding to the burdens of the student, this would enable him to comprehend what was taught.

Dr. Andrew Wood seconded this.

Dr. Humphry moved, as an amendment—"That it is desirable that systematic instruction in pathological anatomy should form a part of Professional education." His chief objection was to the word "lectures" in the resolution. It was most important that the instruction in pathological anatomy should be systematised, and that might be done without occupying any more time, because the time now spent was spent in a very unsatisfactory manner. There were some subjects in which the student in his after-life would be able to gain much instruction and experience—*e. g.*, midwifery; but there would be no opportunity for instruction in pathological anatomy after he had completed his course. It should be the foundation-stone of their science in the treatment of disease, and unless a man obtained a fair knowledge of the subject as a student, there was little or no chance of his obtaining it as a Practitioner. Of all the things he (Dr. Humphry) learnt as a student, none had stood him in such good stead as the information on pathological anatomy gained at St. Bartholomew's under the most admirable guidance of Mr. Paget. That knowledge had been the basis of all his subsequent work. Therefore, he was most anxious that more systematic instruction should be given upon this science, but that the way in which it should be done should be left open.

Dr. Stokes seconded this.

Sir D. Corrigan said he should object to see an ordinance issue from the Council that pathological anatomy or the study of the appearances presented after death should be separated from the study of disease before death. You might as well bring a parcel of broken bones into a lecture-room for the purpose of teaching that branch of practical Surgery which dealt with the treatment of broken bones. What was important to teach students was to recognise the effects upon the system during life. He recollected attending a course of pathological lectures in which preparations were put up in jars; and he declared that if the labels had been removed no one would have known what those preparations were from looking at them, or if the labels had been shifted the preparations would have been just as good for the purpose of study. (Laughter.) He objected altogether to the resolution.

Dr. Christison would be ready to vote either for the motion or for the amendment, but upon the whole preferred the amendment. The learned gentleman detailed the history of the study of pathology in Edinburgh, and stated that at the present time it had resulted in this, that Dr. Saunders now taught pathology practically and by lectures in the manner pointed at by Dr. Parkes's motion, and the result was that his chair had become one of the most popular in the University. Teachers should always look to what the students were inclined to adopt, and not to require subjects compulsorily until they were pretty generally taken up by the students.

After some remarks from Dr. Thomson, Dr. Sharpey said that the propositions now before the Council had for their object to secure a more systematical study in pathological anatomy, instead of that desultory study which had hitherto prevailed. He was of opinion that young men would profit more by the cases which came under their notice in Hospital practice if they had the advantage of a systematic course of instruction in this subject. Dr. Christison had alluded to the teaching of pathological anatomy in Edinburgh; but it would be known to several members of the Council that for many years it had been systematically taught in London. He was disposed to leave the details of the arrangements to the Licensing Bodies, for he thought in all these cases it was wise of the Council merely to express a general opinion upon these matters. He intended to vote for the motion, but at the same time he would not be at all disappointed if Dr. Humphry's amendment was carried, because he believed it met the case.

Dr. Gull said: Sir Dominic Corrigan had remarked that there was very little advantage in studying pathological specimens unless the student was acquainted with the history of the disease. He would ask the learned baronet to take the proposition the other way. He believed that, upon a heart or a lung or other morbid specimen being given to a man, he ought to be able to tell very much the clinical history of the case. He had written the following remarks upon this matter some time ago:—"That morbid anatomy, as a part of clinical Medicine, requires much more time to be spent upon it than at present; so that, instead of a hasty evisceration of the dead, exact dissections of morbid parts might be made, thereby affording them a closer acquaintance with the mechanical effects of disease;"—(applause)—"that a clinical laboratory should exist in every Hospital, in which might be carried out more complete examination of excretions and other matters than is practised at the bedside." He believed, for example, that students ought, in many cases, to be required to give an outline of the clinical history of a case from even an evacuation. Every day mistakes came under his notice simply from a non-acquaintance with this subject in detail. There was not one man in a hundred who would take the trouble to look into it, whereas it should be well understood and known as a part of Professional education; therefore, he thought the Council would miss a good opportunity if it did not express a distinct opinion as to the advantage of more systematic study of this important branch of science. He would either vote for Dr. Parkes's motion or Dr. Humphry's amendment, which was, perhaps, a little better, because it was less explicit. He believed Sir Dominic Corrigan agreed with most of what he was saying now.

Sir D. Corrigan: With a good deal of it.

Dr. Parkes would be glad to vote for either the motion or the amendment, although he thought (perhaps naturally) that the motion was a little the best, because it would more surely advance the object which the Council unanimously had in view.

The President put the amendment to the meeting, and it was adopted.

Class Examinations.

Dr. Parkes then moved the fourth of the resolutions:—"That it is desirable that class examinations should be compulsory, and that the Licensing Bodies should require them in all cases." He said that as the motion was so worded as to be as little explicit as possible, retaining any definite meaning, it would probably not meet with any opposition calling for argument. These class examinations were admitted by all teachers to be the best means of ascertaining satisfactorily that they were teaching efficiently, and the labour which they entailed was always well bestowed. The motion left the question whether they should be oral or written entirely in the discretion of the teacher.

Dr. Humphry said that, having on all former occasions moved amendments or made objections to Dr. Parkes's resolutions upon the subject, he had great pleasure in seconding the motion. He had always been of opinion that class examinations were most important adjuncts of Medical instruction. In this instance, drawing out of the students was the best mode of putting into them knowledge. He had been sometimes utterly astonished and quite disheartened to find the little amount of knowledge that he had imparted; but he had learned from that partly that he had not been sufficiently explicit in his teaching. There was no doubt that the students liked it, and it was most improving to the teachers themselves.

Dr. Stokes: I quite agree with Dr. Parkes's motion; but what does he mean by compulsory—compulsory on the students or on the teachers?

Dr. Andrew Wood: Both.

Dr. Stokes: I think the word "compulsory" is a dangerous word, and that compulsion is of doubtful advantage.

Dr. Alexander Wood cordially supported the motion, principally on the ground that it brought the mind of the teacher in contact with the mind of the student. He was opposed to enforcing the lecture system to the extent to which it was done; but here was a proposition which enabled the teacher to know what the student is learning, and also in what respects he himself is deficient as a teacher. When he was a teacher he had been in the habit of taking a text-book and telling the students to prepare a few pages, and then they had a conversation together about it, rather than a lecture. Thus he got to know where the weak points in the students' knowledge were, which never could be done without examination. Then, why not make this compulsory, if at the end of the students' curriculum you made it compulsory that he shall have shown that he has undergone examinations by certain examiners? He knew no means of mental discipline upon a subject equal to undergoing examination upon it, nor any better mode of teaching a man to arrange his knowledge than by having to prepare for such examinations.

Sir Dominic Corrigan moved as an amendment—"That it is desirable that the class examinations form a part of every course of lectures, whether systematical or clinical." That would carry out fully the principle which Dr. Parkes advocated, and which the Council was unanimously agreed upon—namely, the utility of class examinations—and that they should form an integral part of every course of lectures. He cordially agreed with Dr. Stokes's objection to the word "compulsory." It was dangerous and useless, and would only lead to a system of the sale of false certificates, which was the curse of the rising generation of Medical men.

Dr. A. Smith seconded the amendment, and was much opposed to the word "compulsory" forming part of the resolution.

Dr. Andrew Wood said it was quite evident that the last two speakers agreed with Sir John Falstaff that they would do nothing on compulsion. Sir Dominic Corrigan's objection to compulsion on the ground that it would lead to false certificates would apply equally to all certificates. He contrasted the system which was pursued when he was a young man, when students were allowed to fritter away their time just as they liked during their curriculum of study, and then were obliged to go to men called "grinders," who crammed them up like a lot of parrots. He objected to emasculating the resolution by removing the compulsory portion of it.

Dr. Sharpey said, in his experience compulsory attendance was necessary; otherwise only the most zealous students would attend, and the very men who required the greatest amount of instruction would absent themselves.

Dr. Gull proposed that after the word "compulsory" the words "on students" should be inserted.

The President then put the amendment to the meeting, which was lost.

Dr. Acland then moved the following amendment—"To omit all words after the word 'compulsory.'" He entirely agreed with the general principle contained in the motion, but he thought that for the Council to endeavour to enforce details of this sort was unwise. Speaking for his own university, it was so alien to the system of freedom of thought and dependence upon examinations adopted there that many of the most learned teachers would receive it as an undue interference with their province by the Medical Council.

Mr. Quain seconded the amendment, which was lost by a small majority.

Mr. Quain then moved as a further amendment—"That it is desirable that class examination should form a necessary part of class instructions." He wished the vote of the Council to be unanimous, and he thought that this change of words might meet the views of all parties.

Dr. A. Smith seconded the amendment, which was carried upon a division by the casting vote of the Chairman.

It was then put as a substantive motion, and carried *nem dis.*

Adjourned to to-morrow at two o'clock.

Fourth Day.—Friday, July 7.

The Council reassembled at two o'clock.

Conjoint Examining Board for England.

Dr. Bennett (by permission of the Council, and on the understanding that no discussion was to follow) made a statement with regard to the arrangements agreed to on this subject by a conjoint Committee of the Royal Colleges of Physicians and Surgeons of England. He said that it was only with a desire to facilitate the discussion on the Education Report that he wished to say anything at this stage. At the close of the session of 1870, prior to the introduction of the last Medical Bill, efforts were made to form a Conjoint Board for this part of the kingdom, and those arrangements had gone to such an extent that there was a well-founded hope of their ultimate success. Those efforts fell into abeyance when there was a prospect of legislation. As soon, however, as the Bill failed, it was thought desirable to resume those efforts, inasmuch as the recommendation of the Council was still before them, and the College of Physicians had taken very great pains in their endeavours to bring about such a junction as was thought desirable. They had met with considerable difficulties. Scheme after scheme had been discussed and abandoned, in consequence of the objections to it, sometimes coming from the universities, but more frequently from the Apothecaries' Company, who were so bound by their Act of Parliament as to make it very difficult for them to accede to propositions to which otherwise there

was reason to believe they would gladly assent. The result was that the College of Physicians had determined to form a board between themselves and the College of Surgeons, and they had drawn up their scheme in such a way as to offer the greatest possible facilities for the junction of other bodies. They had been in communication with the various universities, and they had reason, at all events, to hope that when the scheme as now completed was before the universities, they would concur in it; but whether they did or not, the arrangements between the two Colleges were such as to leave no moral doubt that their junction in examinations would be effected. The conjoint Committee appointed by the two Colleges had passed certain resolutions, of which he would read the substance. It should be observed that the scheme had been only completed so recently that there had been no opportunity for obtaining the official consent of the Colleges themselves, but the feelings and wishes of those two bodies were, he believed, represented on the Committee; there could, therefore, be no doubt that the scheme would be officially approved. The Committee had agreed upon a scheme for a Conjoint Board before which all candidates applying for licences would be obliged to appear, in order to obtain the qualification of either body. Parts of the scheme were introduced for the express purpose of facilitating the co-operation of the universities, and there was reason to believe that they would meet with the approval of the universities, though, of course, he had no authority to speak on behalf of those universities. Their representatives were present, and would have an opportunity of saying how far it was likely that the universities would co-operate. The scheme consisted essentially in the formation of a board of examiners appointed by the co-operation of the College of Physicians of London, the College of Surgeons of England, and such other authorities mentioned in Schedule A of the Medical Act as were willing to join them, it being understood that liberty should be left to them still to confer their honorary distinctions and degrees, whilst each will abstain from independent action in giving admission to the Medical Register. Then the examiners were to be appointed by the several co-operating Medical authorities on the nomination of a committee (this was the important part of the scheme), to be called the Committee of Reference; but no member of the Committee of Reference was to be eligible for nomination as an examiner. The Committee of Reference was to consist of an equal number of representatives of Medicine and Surgery, to be appointed as follows:—One representative of Medicine and one of Surgery, to be appointed by each of those universities in England which joined with them; four of Medicine, appointed by the College of Physicians of England; four of Surgery, appointed by the College of Surgeons. Then there was a special provision with reference to matriculated students of English universities to this effect: that students of English universities who shall have completed their Professional study and passed such examinations of their university as shall comply with the requirements of the final examinations conducted by the board, will be eligible for admission to the final examinations, and after such examinations they will be required only to pay a fee of five guineas. The principle of the scheme, therefore, was this: in the first place, a combined Board of the two Colleges, with provisions to facilitate the co-operation of other bodies who might join with them. The two bodies would no longer directly appoint their examiners, but they would agree to the formation of an intermediate body, called the Committee of Reference, which Committee would look out for the best examiners that are to be obtained, and submit those names to the several co-operating bodies for approval. The examinations would be conducted by the examiners thus brought together, and the qualification received by successful candidates would be a conjoint qualification of the two Colleges—a qualification in Medicine and a qualification in Surgery—as the result of one examination. If the plan succeeded, the views and action of the Council with reference to future legislation would be very much modified, because all that was proposed to be accomplished by a Bill in Parliament would be done by their own voluntary efforts.

Mr. Quain said that although he was precluded by the understanding that had been come to from entering into any discussion, he should like to say, as representing the College of Surgeons, that he did not dissent from anything said by Dr. Bennett.

Clinical Instruction.

Dr. Fleming moved—"That it is desirable that clinical instruction in Medicine and in Surgery should not be conducted so much by formal lectures in class-rooms as appears from the evidence before the Council to be the case at present; but that Hospital students should be divided into classes of limited numbers, so as to enable them individually to observe cases of disease, and to be examined upon them conversationally at the bedside or in proximity to it. Further, that it is desirable that, where possible, all students should serve as clinical assistants or dressers." He looked upon clinical teaching as the most important part of the student's career, and he was not satisfied with its state generally in this country. Very little progress had been made during the last twenty or thirty years. The immense advantages afforded by the large Hospitals were not utilised as they ought to be, and it was too much the custom for the students literally to "walk" the Hospital wards without learning what they ought to learn from the Physicians and Surgeons. The clinical lectures in periodicals which he occasionally read were very often admirable prelections on forms of disease of an anomalous or rare character, which a man might not meet with in a lifetime, and the lectures were evidently prepared not so much for the student as for publication, and they by no means came up to his idea of what clinical *instruction* (between which and clinical lectures there was a great distinction) ought to be. The College of Surgeons of England, very much to their credit, now required that a student should be engaged for three months in wards examining cases, and being examined as to them. Some valuable opinions on the importance of this were collected in the report of the Committee on Professional Education. Dr. Sieveking said: "I would remark that in teaching clinical Medicine the individual student requires to be more constantly appealed to. He should be called up to report upon the pulse, tongue, temperature, secretions, and various physical symptoms; he should be examined by the bedside about treatment, diet, and doses of medicine." That plan had been adopted in Glasgow and some other schools, but it was not general. Sir Thomas Watson said: "By clinical instruction, I mean the explanation of what the student thus sees by a teacher properly qualified to give it, who would point out to him in each case how the diagnosis of the disease is best made, what are the symptoms which should guide its treatment, what treatment he adopts, and why he adopts it, the apparent effects of that treatment, and, in cases that prove fatal, the comparison between the actual and the anticipated morbid conditions of the interior of the body." Then Sir William Fergusson said: "The Medical Council would do well, in my opinion, to define what should be called a clinical lecture. No so-called lecture should be recognised as such, unless it be essentially clinical—*i.e.*, delivered at the bedside, or within reasonable distance from the patients whose cases are to be commented on. Lectures on one subject, or more, which have no reference to subjects or cases immediately or recently under observation, should not be recognised, and lectures on the principles and practice of Medicine or Surgery should be refused as clinical lectures. It is worth consideration whether the words 'clinical lectures' should not be given up, and 'clinical instruction' substituted. No written or read clinical lectures should be recognised. If a man cannot give clinical lectures and instructions without reading, he should not be recognised as a clinical teacher. Something of a formal lecture may occasionally be permitted or enjoined, but teaching by brief remarks and demonstrations during visits, or on seeing patients and prescribing for them, should be represented and required as the essential quality of this kind of instruction." After reading remarks made by Mr. Hamilton Labatt, Mr. Simon, and Mr. Teale, Dr. Fleming concluded by expressing his hope that the opinions of such eminent authorities would prevail with the Council.

Dr. Macrobin, in seconding this, remarked that in Aberdeen clinical instruction in Surgery was given at one time, and in Medicine at another time.

Sir D. Corrigan believed the system proposed to be perfectly impracticable, and that the Licensing Bodies of the United Kingdom must be allowed to adapt their arrangements to their necessities and to the size of their Hospitals. It was absurd for the Council to tell every Hospital to divide the students into classes of limited numbers. Supposing there were sixty pupils in a school, was a Physician who could not teach properly to keep ten of these students, and were those ten to be compelled to remain with an inefficient teacher for six or three months? Was it right to force a student to attend a man whose teaching he could not respect?

Dr. Macrobin: They are all qualified men.

Sir D. Corrigan replied that there were many qualified men who could neither teach nor learn. He himself had found that pupils left him either because his brains were wearing out, or

because from some other cause he failed to interest them. (A laugh.) Then why should not a man study a Surgical case whilst he was specially studying Clinical Medicine? Was the door to be shut upon him when he might not have another opportunity of seeing such a case again? He should like to know how many Hospitals there were in Aberdeen.

Dr. Macrobin: One.

Sir Dominic Corrigan: Then, of course, they could do what they liked with the students; but in London, Dublin, or Manchester the students would not submit to such a restriction. They would go where they could learn the most, and they would not tolerate the idea of being forbidden to learn Surgery because they were learning Medicine, and *vice versâ*, of being compelled to follow a particular Physician or Surgeon. He remembered the case of a most respectable man connected with a Hospital, to whom a particular ward was assigned. It became a joke when the statistical returns were made that there was never a fatal case in that ward, whereas in his (Sir D. Corrigan's) ward the deaths were 15 per cent. The Government official called him up, and said—"I don't like to publish these returns, because they seem like a slur on your Professional skill. Here is that respectable old gentleman, who does not lose a case." He replied—"You can publish it if you like on a Morrison's pill-box, but I will tell you the fact. This gentleman particularly dislikes trouble, and we put into his ward all the worn-out cooks and people suffering under rheumatic arthritis; he was very much obliged to us, and such patients never die!" (A laugh.) He objected altogether to laying down this minute code of regulations. (Cheers.)

Dr. Gull proposed as an amendment—"That the Council express their sense of the importance of making clinical instruction year by year more practical and more consonant with the phenomena of disease, and less dependent upon formal clinical lectures." He thought that the study of Medicine must be made more and more practical. He had heard of a celebrated London professor who gave three weeks' lectures on pericarditis, whereas one hour's investigation at the bedside of some patient suffering from pericarditis would have taught the students a great deal more. The bedside in Medicine was what the dissecting-room was in anatomy. (Cheers.) He would, however, be sorry that the lecture-room should be shut, because there was a great advantage in bringing a student into contact with the mind of his teacher, but the formal lectures should be rare. When a man had something to say, let him say it.

Dr. Stokes seconded the amendment. He did not know of any formal or prepared clinical lectures in his city. Clinical lectures were given out of the mind of the Surgeon or Physician upon cases as they arose. As to clinical lectures in wards, they were a cruel and barbarous institution, and a man who told the students everything about a case there must be very indifferent to the feelings of his patients. What was done in the Meath Hospital was this: there was a conversation at the bedside of the patient, in which all painful topics were avoided, and after the visits the students assembled in the theatre, and were examined upon the cases. In a class of eighty or ninety men, the number who availed themselves of all the possible advantages of a Hospital was not more than a fourth, and it was better for a teacher to produce a small number of good and willing men than a large number of indifferent and unwilling men. (Cheers.) He would conclude by observing that multiplied coercive regulations were utterly beneath the dignity of the Council, and they would only prove to be nugatory if passed.

Dr. Christison said that if he were disposed to suggest any change in Dr. Gull's amendment, it would be that the Council should say that they had observed with pleasure that great improvements had been going on in the mode of clinical instruction. He agreed with most of the objections made to Dr. Fleming's proposition, and also with the opinion that an occasional clinical lecture of a more formal character than the demonstrations in the wards would be of great service. He was the first to introduce, in 1831, examinations on clinical subjects in his university, and he had repeatedly referred to the propriety of paying attention to what the students found most appropriate for their instruction. Supposing there was a great accumulation of cases of partial paralysis of the nerves of the face, what could be more useful than for the professor to bring the students into his class-room, and give them an account of those various cases, of the different symptoms, of the probability of recovery, and the different varieties of treatment? It once fell to his lot to do so, and, in deference to the request of the students, he had published his lectures on that subject. He hoped that it would go forth that the Council attached the greatest possible importance to observations made by professors in their visits and in their examinations of the students. He did not appove of the practice of some teachers who examined their pupils in a loud voice by the bedsides of the patients. If it was desirable for the Council to say anything, he thought Dr. Gull's proposition amply sufficient.

Dr. Humphry thought the Council ought not to interfere at all with such details, because by doing so they would very much diminish the value of the opinions that emanated from them. He found, from personal inquiry, that the regulations of the College of Surgeons as to close clinical instruction were carried out far more than could have been expected. At the Hospital in Cambridge that particular work was carried on most patiently and laboriously.

Mr. Hargrave opposed the motion.

Dr. Andrew Wood, in support of the amendment, referred to the method of a Dublin professor as his beau-ideal of what clinical instruction should be. That professor took the students with him round the wards, and he would say to one, "What is your diagnosis?" and as soon as the visit was over he took them into the operating theatre, and made such comments on the case as he could not have made at the bedside. Sir D. Corrigan had alluded to the fact of professors having different qualifications, and that some would draw 100 or 150 after them, and others only two or three. That was a grievous evil, because there would always be a great deal of squeezing and pushing, which would be very inconvenient to the patients as well as to everyone else. It was on that ground he supposed that Dr. Fleming proposed limited classes. He could not agree with the opinion of those who seemed to think that the Council should lay down no regulations. What was their business but to counsel the Profession? Dr. Parkes's excellent report showed that the recommendations of the Council, which had been issued from year to year, had been followed almost in their entirety by nearly every Licensing Body, and he believed that those bodies looked upon it as a privilege to receive such recommendations.

Dr. Alexander Wood said that when he began to study midwifery, the first axiom he learned was that a meddlesome midwifery was a bad midwifery; and applying that to the subject before them, he thought it would be dangerous, seeing how satisfactorily this department was going on, to interfere by laying down too precise regulations. Dr. Christison and himself had once to sit on a board to hear a charge made against one of the most distinguished clinical teachers in the country, that he was not properly instructing his class; and the wise and sound deliverance that the University Court made upon that case was, that when a professor was attracting students from all quarters to his lectures, it was not for the Court to lay down rules for his guidance—that much must depend on the individual character and genius of the professor.

Dr. Aquilla Smith supported the amendment.

Dr. Quain thought that no two members of the Council would agree on the best mode of clinical teaching, and it was not desirable that they should. The Council could exercise its influence most effectively on the clinical examinations; therefore, nothing more was necessary for them to do than to express a general opinion on the value of clinical instruction.

Dr. Parkes agreed that the great test of the nature of clinical instruction was in the examination, and he was against any resolution on the subject being passed, because at the present time every Licensing Body had instituted a clinical examination.

The President said that all the opinions expressed agreed substantially with what Dr. Fleming really wished to secure by his motion; but they differed as to the advisability of minute legislation. For his own part, he was against the Council going into details on the subject of teaching. They could not be too precise upon matters relating to the examinations, upon which the licence and the diplomas depended; but there was great advantage in allowing considerable latitude and freedom in matters of teaching. The kind of instruction which was the best for England might not be the best for Scotland or Ireland, and what was the best for one man was not necessarily the best for another.

Dr. Fleming, in reply, said that he did not want to dictate at all to the Licensing Bodies; all he wished to secure was that a certain amount of real clinical instruction should be given. Neither did he contemplate the introduction of painful topics at the bedside, but only such things as the feeling of a patient's pulse, an examination of his tongue, or of an evacuation of urine. Surely, that might easily be done.

The amendment was then negatived by a majority of 8 against 7.

The original motion was also lost, only three voting for it.

Preliminary Study of Chemistry.

Dr. Storrar moved—"That it is desirable that students should have the option of acquiring an adequate knowledge of chemistry, and of passing an examination in it, before they enter upon the period recognised by the Licensing Bodies as the course of Professional study." He said that this was in the interest of the student and of the patient. It was agreed that four years was the utmost limit that could be prescribed for Professional study, and yet that period was still overcrowded with subjects. The proposition he had brought before the Council would reduce the pressure on the student by making an examination in chemistry precedent to the course of Professional study optional with the student. A wonderful revolution was in progress in grammar schools by the introduction of physical science. Masters of high repute in this branch were appointed in Eton, Harrow, Rugby, Marlborough, Clifton, and many other schools, and the time might shortly come when lads of 16 or 17 years of age would proceed from school with an amount of knowledge in chemistry which would enable them to pass a very good examination for the purposes of Medical study. The Council was not asked to make this compulsory, but only to express an opinion that it was desirable that students should have the option. Schools for science were springing up in many of the provincial towns. There was an advertisement in the *Times* of this morning of an institution which was nothing less than a college of science in Newcastle-upon-Tyne, and hundreds of youths would there acquire a knowledge of chemistry which would amply qualify them for Medical studies. Some parents in England postponed sending their sons to a Medical school too early. He remembered the case of a clergyman's son who had taken honours and was intended for the Medical Profession. The father did not like the idea of sending him into a dissecting-room when he was not 17 years old, and he asked what should be done. He (Dr. Storrar) answered—"Send him to University College, where you propose that he should study; enter him in the classes of natural philosophy and chemistry, and let him defer entering upon the study of anatomy till the following year." This was done, and the young man took the gold medal in anatomy last year in the University College examinations. There was no doubt that he was assisted in that by his having studied natural philosophy and chemistry before he began the study of anatomy. Teachers of anatomy often complained that the students had great difficulty in getting in two years that amount of knowledge which they held to be indispensable in consequence of the crowd of subjects; and if they had the option of being examined in chemistry at the outset it would be extremely useful.

Mr. Quain, in seconding the motion, observed that it was strange that chemistry should be considered by many as nothing else but a Medical science, whereas it ought to be universally considered as a part of general education. It was marvellous to find so many highly educated men ignorant of some of the simplest laws of nature. He had known a man of the highest ability, and very much distinguished in his university, who could not tell why the stirring of a fire caused it to blaze. Lately, he had been reading some of the evidence given before the Royal Commission on Education, and he noticed that the master of the City of London School stated that his boys began Latin three years later than was ordinarily the case in schools, but they made much greater progress, because meanwhile they were learning arithmetic and chemistry. The teacher of chemistry in that school had become so well known that he was mentioned, in flattering terms, in a report by M. Duruy, the head of the Educational Department under the late *régime* in France. And as this study was becoming more general in schools, there was good cause to believe that the labours of Medical students would be considerably lightened if they were allowed to begin their Professional course after they had passed an examination in chemistry.

Dr. Thomson suggested that the resolution should be altered so as to be limited to "the general principles of chemistry." As a teacher, he was strongly impressed with the propriety of some such measure as the one now before the Council. The junior students of anatomy were quite unprepared for the reception of scientific knowledge at the commencement of their Professional studies; and he could conceive no measure which would contribute more to fit them for the due reception of the knowledge which had to be communicated to them than a preliminary scientific year, which should include the principles of chemistry, physics, and other kindred subjects.

Dr. Apjohn did not know what was meant by the word "adequate." It was impossible that boys of 15 or 16 could acquire a sufficient knowledge of chemistry, and he should be very sorry if the smattering which was all they could obtain at that age was to be the only knowledge they possessed during the Professional curriculum. He said this as the result of a very extended experience in the teaching of chemistry. He, therefore, would move as an amendment—"That chemistry is a most important branch of Medical education, and that the Council does not think it desirable to adopt any resolution which, if it had any practical effect, would tend to discourage the efficient study of the subject by Medical students."

Dr. Andrew Wood seconded this on the ground that it was not calculated to relieve the student, but its certain effect would be to prevent many from extending their knowledge of chemistry. The subjects of study at first were nothing but anatomy and chemistry, and to restrict a student to one subject would not be a boon, because the study of chemistry was a kind of relief to that of anatomy, and it could scarcely be suggested that a man at the beginning of his career could study any other strictly Professional subject with anatomy so as to get much benefit from it. Did Dr. Storrar think that a youth of 16 would be able to cope with the immense difficulties of such a science as chemistry? Surely they did not mean that the knowledge of chemistry was to be that sort which was given to young misses in boarding-schools, but that it should be such a thorough knowledge of it as was required in Medicine, therapeutics, and physiology. A young man would be more likely to get the requisite amount of knowledge in this science by taking it in the course as he does now, than if he were allowed to disembarrass himself of it; for they all knew that a student frequently applied himself very hard to a subject till he was examined upon it, and then threw it to the winds. (Cheers.)

Dr. Bennett drew attention to the fact that the Council had already passed a resolution moved by Dr. Storrar, which was very much more comprehensive than the present one—and which had been acted upon by the Licensing Bodies. The resolution was in vol. iii., page 234, of the Minutes, and sufficiently expressed the view of this Council, which was that if students could learn chemistry, botany, and other natural sciences before they commenced their special Professional studies the Council approved of it, and it was perfectly competent for the Council to sanction an examination in them before the Professional studies were entered upon. It appeared, therefore, much better to be satisfied with having expressed an opinion of that sort with regard to natural science generally than to mention chemistry specially.

Dr. Storrar (in reply) said that, in using the word "adequate," he had in view the examination in chemistry at the College of Physicians, which was an exceedingly good one. Did any member of the Council really contemplate that a Medical student for general practice should be conversant with the whole range of chemical subjects? What he really meant was that, if a student obtained such an amount of knowledge of chemistry as is obtained in an ordinary Medical school by general Practitioners, he might be examined upon it before commencing Professional study. It was not likely that he would lose that knowledge, as one of the speakers thought, because there were other studies in which he would be engaged which must keep it up—namely, practical physiology, toxicology, and also pathology. Pathology, properly studied, involved the question of testing animal fluids, and in that and other ways there would be abundant opportunities of keeping up that knowledge of chemistry which Dr. Andrew Wood supposed must necessarily be scattered to the winds the instant the first examination was passed upon it. Dr. Thomson suggested the words "principles of chemistry," but he (Dr. Storrar) objected to that because the principles of chemistry might be so limited that a very young person might have some idea of them. Dr. Apjohn thought it was impossible to give more than a smattering of chemistry to boys of 14, 15, and 16 years of age. It was just this smattering which he wished to avoid; he had always set himself against fireworks and explosions, which were very interesting, but useless as educational means. Dr. Apjohn would be surprised to know the extent to which schools were going in appointing natural science masters. At Clifton College the salary of that master is £300 a year, proving that they were going in for something like serious work in this matter. Then it was not to be supposed that only boys of 15 or 16 were contemplated in the motion; he had mentioned the case of a young man whose father objected to introducing him too early to the dissecting-room. There were many such cases, and it was perfectly possible that a young man 17 years old should be able to acquire an adequate knowledge of chemistry up to the standard required by the College of Physicians. Dr. Andrew Wood seemed

to take a very easy view of the work of the student during the first year—that he had nothing to do but to study anatomy, and that he might lighten it with chemistry. Whatever was the case in Edinburgh, in this country it was certain that the student was pretty hard strained in getting a sufficient knowledge of anatomy and physiology with chemistry in two years' time. The resolution now before the Council was a decided advance upon the one referred to by Dr. Bennett, and it was from a feeling that they might now go a step further that he proposed this definite resolution.

The amendment was put to the vote and negatived.

The original motion also was lost.

Conjoint Examining Boards.

Dr. Parkes moved:—"That a letter be addressed to each Licensing Body transmitting a copy of the resolution of the Council of February 26, 1870 (*see* vol. viii., pp. 32-4), on the formation of Conjoint Examining Boards, and urging that arrangements for the formation of such boards shall be undertaken without delay, and shall be communicated to the President of this Council before the close of the present year." He reviewed the history of the proceedings of the Council upon this subject, by which it appeared that an almost unanimous decision had been come to that such Conjoint Boards were desirable, which opinion of the Council was transmitted to the Lord President, and formed the basis of legislation last year. The Licensing Bodies were now in a better position for the consideration of this subject, and any recommendation of the Council would have more weight than it had previously. Nor did he think that the statement made by Dr. Bennett would in any way affect this question, because that statement must necessarily be considered as of an informal character. When the College of Physicians or the College of Surgeons informed the Council that a Conjoint Board was formed that would be very pleasing intelligence; but there was no reason why the Council should alter its verdict of 1870 and not press the subject on the attention of the Licensing Bodies.

Dr. Storrar seconded this.

Sir Dominic Corrigan opposed. He said that on the former occasion when the matter was before the Council, he had to deal with some of the most obstinate men he ever met, for he stood alone against seventeen. (Laughter.) He had not changed his opinion. The result in Scotland had not been to send out any better men, and he did not think that the plan could be carried out in Ireland.

Dr. Gull said that it was the dream of his life that there should be a conjoint examination for men who entered the ordinary departments of the Profession, because it was a very grave weight for a young man to be examined by some half-dozen bodies. As for the universities, he would only speak for the University of London. The Council and Senate had always expressed the greatest willingness to put aside all their privileges, and make every sacrifice for the good of the Profession in order that there should be a Conjoint Examining Board. That was also the feeling of the College of Physicians. During the last fifteen years, since he had been junior censor of the College, it had been the constant effort of the most advancing men to bring about this result. He was very sorry that on a former occasion during the present sittings of the Council he had said that the College of Surgeons were obstructive, because he now found that it was not so. It was a most disgraceful thing that there should be nineteen Examining Bodies, all of different views, buying and selling the unfortunate Medical student before he could enter the Profession, and it would be a disgrace to the Council if they did not arrive at some means of solving this question. Let the universities give the same honours which they give now, let the men who want those high honours go to the universities for them, but do let there be for the Medical Profession one uniform standard of qualification for those who seek, not the honours, but the necessities of the Profession. He hoped that Sir Dominic Corrigan in his cooler moments would find that the thing was not impossible in Ireland. Why should it be? No university or body had more distinguished itself than the University of London, and yet that university was willing to put all its privileges aside, and make its students submit to the examination of this Conjoint Board. (Cheers.)

Dr. Alexander Wood complained that Government was obstructive, and it was the duty of the Council to endeavour to effect for the Profession this much needed reform. They would stand in a more independent position, and do more good, if they accomplished it with the machinery which was at their command, rather than if they laid themselves down at the foot of any Government and asked for a Bill.

Dr. Humphry said that the University of Cambridge entered heartily into this scheme, and appointed a syndicate for its consideration, which syndicate had expressed itself favourable to the appointment of the Conjoint Board, on the ground that it was desirable for the Profession; and they were quite willing that their students should be subjected to such examination, provided they could insure that the board was a sufficient one, and that the examiners were appointed in a proper manner. He had reason also to believe that that was the feeling of the University of Oxford, though, unfortunately, Dr. Acland was not present to express it.

Dr. Andrew Wood hoped that a joint Examining Board would be formed for each of the three divisions of the kingdom.

Dr. Arjohn stated that the University of Dublin were prepared to co-operate.

Dr. Embleton said the same on behalf of the University of Durham.

Mr. Quain thought it would be discreditable to the Profession if what was so generally desired was not attained without Government interference. Dr. Gull had alluded to the discredit of having nineteen competing Boards. It should be remembered that those Boards were made to compete, not by the Profession, but by the Government, and he had, therefore, a great distrust of Government interference.

Dr. Quain expressed his hope that Sir Dominic Corrigan had not given utterance to his real feeling. The Colleges of Physicians and Surgeons in England had been straining every point to accomplish that which was now apparently so near completion; and if their brethren in Ireland would undertake the same duty in the same spirit, the result could not be doubtful.

Dr. Christison said that he saw no difficulties in the way on the part of the Universities of Scotland which could not be overcome.

The President expressed himself as entirely in favour of the resolution. He observed that the Council possessed no power itself to form the Conjoint Board. It might do its best to promote it, but it could not force the Licensing Bodies to unite. If the union could not be effected without legislation, they must have legislation; but he would rather try voluntary effort first. The thing that most weighed with him was that, notwithstanding all their care and the great improvement which had been made, statistical returns showed that some examinations were occasionally too easy; and, inasmuch as it was the chief duty of the Council to prevent any men whatever entering the Medical Profession whose patients would not be fairly safe, he felt that they ought to do all in their power to effect their object.

The resolution was then put, and carried *nem. dis.*

Dr. Storrar required the names and numbers of those who voted for the motion, and of those who declined to vote.

It was ascertained that all the members present, except Sir Dominic Corrigan, voted in favour of the motion.

The following is the resolution of February 26, 1870, mentioned in the previous motion:—"That this Council is of opinion that a joint Examining Board should be formed in each of the three divisions of the kingdom, and that every person who desires to be registered under any of the qualifications recognised in schedule A to the Medical Act shall be required, previously to such registration, to appear before one of these boards, and be examined on all the subjects which may be deemed advisable by the Medical Council; the rights and privileges of the universities and corporations being left, in all other respects, the same as at present."

Dr. Parkes moved, and Dr. Andrew Wood seconded—"That the first resolution of February 28, 1870 (see vol. viii., p. 37), be also transmitted to the Licensing Bodies at the same time as the previous resolution." This was also carried.

The following is the resolution referred to—"That, in accordance with the foregoing resolution (see vol. viii., p. 32, sect. II.), the universities and Medical corporations established in each division of the United Kingdom shall be requested to concert a scheme for the constitution and regulation of a conjoint Examining Board for that part of the kingdom to which they belong, and shall, on or before June 1, 1870, transmit such scheme to the consideration of the General Medical Council."

Dr. Andrew Wood moved, and Mr. Hargrave seconded—"That the report of the Committee on Education be recommitted, and brought up to-morrow in a form adapted to the resolutions of the Council," which was carried.

Adjourned to to-morrow at one o'clock.

FIFTH DAY.—SATURDAY, JULY 8.

The Council reassembled at 2 o'clock.

After the reading of the minutes of yesterday's proceedings, evidence establishing the identity of Mr. Frederick Henry Morris as the person who was convicted at Devizes on March 27, 1871, of a misdemeanour, was heard, and the Registrar was directed to remove the name from the Register.

CERTIFICATES FROM THE BOARD OF PUBLIC EXAMINERS IN LITERATURE AND SCIENCE, CAPE OF GOOD HOPE.

The following report was read:—

The Committee find that the Board of Public Examiners in Literature and Science, Cape of Good Hope, is constituted under an Act of the Legislature of the Colony.

The Examination Papers for the Third Class Certificates referred to show that the examinations, as stated, correspond generally with the Matriculation Examination at the University of London. The Committee therefore advise the Council to recognise these certificates as fulfilling the conditions of the Preliminary Examination.

Dr. STORRAR moved—"That the report of the Committee on the application from the Board of Public Examiners of the Cape of Good Hope be received and adopted."

Dr. PARKES seconded this.

Dr. STORRAR, in answer to Mr. Quain, explained that the Cape of Good Hope Board had three grades of certificates, and the third-rate certificate seemed to be generally correspondent with the Matriculation Examination at the University of London. Of course, it was impossible in a matter of that kind to get the answers to the questions. The Committee had dealt with the general complexion of the case, as had been the practice with regard to other colonial colleges, and the *primâ facie* aspect of things in the Blue Book before them was very satisfactory.

The resolution was carried *nem. dis.*

THE EXECUTIVE COMMITTEE

was then elected by ballot, and the following members were appointed—Drs. Bennett, Acland, Sharpey, Quain, Andrew Wood, and Aquilla Smith, the names being arranged according to the number of votes received.

ACTION OF THE COUNCIL IN PENAL MATTERS.

Mr. QUAIN moved a resolution to the effect that when it was necessary to inflict any penal measure upon a registered Practitioner, it should not be necessary that such proceeding should be moved and seconded. He thought it was not the duty of any two members of the Council to promote the punishment of any person who was accused of any offence. It was imperative on the Council, as a Council, to take questions of that kind into its consideration; and even if it happened that no members proposed and seconded a motion for that purpose, the Council would still be bound by the 28th and 29th clauses of their Act to decide the matter. When he came into the Council last Tuesday, he heard the memorial of a member of the Medical Profession of New York (Dr. Pattison) read, and on it were the various motions which had been carried by the Council, with the names of the proposers and seconders. No individual members of the Council ought to appear to the public to be the especial promoters of the punishment of a Practitioner; personal feeling of any kind ought not even to be suspected by the public, and there could be no doubt that the public would suppose that the men who proposed and seconded such a motion were specially active parties in the matter.

Dr. STORRAR seconded this. No doubt in the case of the graduate of the University of New York there was a disposition to fix upon the mover and seconder of the resolution as the persons against whom he felt specially aggrieved. Other cases might arise, which made it very expedient that the gentleman occupying the position of President, and therefore representing the whole Council, should be the person to make such a motion from the chair. Why should not their business generally be done without movers and seconders? That was the case in the body to which he belonged, and the results were satisfactory. But certainly, in special cases of the kind mentioned, no member of the Council ought to be required to put himself forward as, what might be described in extreme language, the hangman.

Sir DOMINIC CORRIGAN did not think that any inconvenience had arisen from the usual practice; but if it were so, the resolution was defective in not telling what was to be done in order to bring the case before the Council. It was suggested that the President should do it, but that would be to throw on the President the burden—if such a thing could be called a burden, which he did not believe.

Dr. GULL said that, as a new member of the Council, it had struck him as one of the faults of their proceedings that members should have to propose questions of this kind. As to the course to be adopted in such cases, the matter would be on the *Agenda*, without any names attached, and the President would bring it forward as a matter of form.

Sir DOMINIC CORRIGAN: What would be the next step?

Dr. GULL: Then the Council would vote. In the London University the Vice-Chancellor would bring the matter before the Synod, and the Synod would vote on it without a motion. That is the most natural course.

Dr. ANDREW WOOD suggested that a difficulty would arise if one member thought that one method of procedure ought to take place, and another was in favour of a different procedure.

Dr. ALEXANDER WOOD said that those members who had felt it their duty to propose and second such motions had hitherto felt it to be their duty to make themselves particularly acquainted with the case. They informed themselves of the particular circumstances of the case, and took charge of it, so to speak. There had been no lack of moral courage on the part of the Council in doing its duty up to the present time, and it was rather peculiar that this deviation from the ordinary course should have been proposed by a gentleman whose experience was the least.

Dr. BENNETT would not express any strong opinion, but it struck him as objectionable that his name should have been cited by Dr. Pattison as having moved a particular resolution. He now moved "that it be referred to the Executive Committee to report on the most desirable mode of procedure in the case of motions having reference to any penal measures."

Dr. THOMSON seconded this.

The PRESIDENT thought that on the whole the best mode was to put such motions from the chair, so that it could not be said of any member of the Council, however unjustly, that he was vindictive.

Mr. QUAIN had no objection to withdraw his motion, so that Dr. Bennett's could be substituted. It had been said that no inconvenience had arisen; but were they to wait till they were attacked and vilified?

Sir D. CORRIGAN: Yes.

Mr. QUAIN: I should think not. Our laws should be such as to prevent anything of the sort. Supposing it occurred in Ireland, and we waited till somebody was shot.

Sir. D. CORRIGAN: We always do. (Laughter.)

Dr. BENNETT'S motion was then put and carried.

RETURNS FROM THE ARMY AND INDIAN MEDICAL BOARDS.

The following report was read:—

The Committee appointed July 4 to consider and report on the returns from the Army and Indian Medical Boards, recommend that the following communications be addressed to the Director-General of the Army Medical Department, and to the Major-General, Military Secretary, India Office:—

To the Director-General, Army Medical Department,

"Sir,—I am directed by the General Medical Council to thank you for the statement with which you have favoured them, 'of the degrees, diplomas, and licences of the candidates for commissions in the Medical Department of the army, who, in February last, presented themselves for examination;' and to ask you, should you see no objection, to make a slight alteration in the last column, which, although sufficiently intelligible to a careful reader, might be misunderstood by some.

"The alteration I am directed to suggest is, that in future returns the last column headed 'Candidates' should stand thus, as may be illustrated by applying it to the present return—

"Total number of candidates	57
Succeeded in obtaining appointments	36
Succeeded in examination, but not in obtaining appointments, there being only thirty-six vacancies	17
Failed in examination	4
Total	57"

To the Major-General, Military Secretary, India Office.

"Sir,—I am directed by the General Medical Council to thank you for the statement with which you have favoured them, 'of the degrees, diplomas, and licences of the candidates in the Medical Department of the Indian Army, who, in February, 1870, presented themselves for examination at Chelsea Hospital;' and to ask you, should you see no objection, to make a slight alteration in the last column, which, although sufficiently intelligible to a careful reader, might be misunderstood by some.

"The alteration I am directed to suggest is, that in future returns, the last column, headed 'Candidates,' should stand thus; as may be illustrated by applying it to the present return—

"Total number of candidates	23
Succeeded in obtaining appointments	10
Succeeded in examination but not in obtaining appointments, there being only ten vacancies	9
Failed in examination	4
Total	23"

Sir DOMINIC CORRIGAN moved—"That the report be received and adopted, and that the letters drafted therein be signed by the registrar, and forwarded by him as directed." He explained that the reason of the proposed change was that, in the form at present followed, a person who did not carefully scrutinise it would conclude that a much greater number failed in the

examinations than was the case; and by the change, the real state of facts would be seen at a glance.

Dr. PARKES seconded this, and it was carried.

FINANCE COMMITTEE.

The following report was read:—

The Finance Committee beg leave to present, in the table subjoined, a statement of the income and expenditure of the year 1870, compared with the income and expenditure of the preceding year, also an estimate for 1871.

It will be seen that there has been an increase of income in 1870, and that this is partly due to an increase in the number of registration fees; but it includes also the balance of the Pharmacopœia account and the proceeds of sales, making together £607 6s., which, by direction of the Council, is now included in the ordinary income. The debt still owing to the Council on account of the Pharmacopœia was reduced in January last to £104 14s.

The expenditure of 1870 is less by £302 13s. 8d. than that of 1869. The reduction is to a considerable extent due to a diminished charge for printing, especially for printing reports of committees. It is expected that a considerable permanent saving under this head of expense will be effected by an arrangement that has been entered into for printing and binding the *Medical Register* at a reduced cost through the agency of her Majesty's Stationery Office.

	Actual Income for the Year 1869.		*Actual Income for the Year* 1870.		*Estimated Income for the Year* 1871.	
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Fees received by—						
Branch Council for England	2281 15 0		2358 0 0		2377 16 8	
" " Scotland	617 10 0		725 0 0		699 16 8	
" " Ireland	732 0 0		1047 5 0		872 6 8	
		3631 5 0		4130 5 0		3950 0 0
Dividends received by—						
Branch Council for England	644 18 9		677 1 3		670 0 0	
" " Scotland	64 10 10		68 2 2		65 0 0	
" " Ireland	64 2 0		65 19 5		60 0 0	
		773 11 7		811 2 10		795 0 0
Sale of Registers	... ..	271 7 6	270 10 0		270 0 0	
Sale of Pharmacopœias and balance of account	... ...	... ...	607 6 0		200 0 0	
Penalties	... ...	47 14 6	9 19 0			470 0 0
				887 15 0		
		£4723 18 7		£5829 2 10		£5215 0 0

	Actual Expenditure for the Year 1869.		*Actual Expenditure for the Year* 1870.		*Estimated Expenditure for the Year* 1871.	
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Expenses of—						
General Council	... ...	4265 13 9	... ...	4060 11 9	... ...	4060 0 0
Branch Council for England	642 9 10		597 18 9		642 0 0	
" " Scotland	286 0 7		240 13 0		286 0 0	
" " Ireland	295 9 10		287 16 10		295 0 0	
		1224 0 3		1126 8 7		1223 0 0
Total expenditure ..		5489 14 0		5187 0 4	Estimated total expenditure	5223 0 0
Total income ...		4723 18 7	Actual income ...	5829 2 10	Estimated total income... ...	5215 0 0
Excess of expenditure over income		£765 15 5	Balance in favour of Council ...	£642 2 6	Excess of expenditure over income	£8 0 0

This report was received and adopted on the motion of Dr. Sharpey, seconded by Dr. Storrar.

Dr. SHARPEY then said that after due consideration, he had come to the determination of resigning his office as one of the Treasurers. He had now served for ten years, and although it could not be said that the duties were in any way a burden, yet he felt that the time had come at which it was expedient that he should resign his share of those duties into other hands. He considered it to be an honourable distinction to have been appointed to the Treasurership in succession to the late Mr. Green. Since then he had had the satisfaction of having had as colleagues Dr. Burrows and Dr. Quain, and they had always acted together in perfect harmony. He could not now withdraw from his office without expressing to the President and the Council his sense of the constant kindness, consideration, and indulgence with which he had been treated, and the satisfaction he felt that there would be no difficulty in appointing an abler and better successor.

The PRESIDENT proposed, and the Council at once carried by acclamation: "That the hearty thanks of the Council be returned to Dr. Sharpey for his long and valuable services as Treasurer."

Dr. SMITH then moved, and Dr. PARKES seconded, "That Dr. Bennett be elected Treasurer of the General Medical Council."

This was agreed to, and Dr. Bennett briefly acknowledged his appointment.

THE PHARMACOPŒIA COMMITTEE.

The following report was read:—

The Pharmacopœia Committee appointed by minute of the Council, July 12, 1869, beg to report that, owing to the pressure of important business during the sessions of the Council last year, no meeting of the Committee was held, and no report was prepared for their consideration by Dr. Redwood.

The Committee met on the 7th instant, and received a report from Dr. Redwood on the progress of pharmacy since the date of his last report. Some points of importance in connexion with pharmaceutical preparations were discussed, and Dr. Redwood was requested to continue his services. It was also resolved that Dr. Christison, Dr. Quain, and Dr. Aquilla Smith be requested to continue their inquiries as regards additions or other changes in the Pharmacopœia, and that Dr. Redwood be requested, in addition to his duty of reporting on the progress of pharmacy, to investigate, from time to time, the composition of articles in the Pharmacopœia, concerning which questions have been raised.

As the sum of £75 remains as balance in the hands of the Committee, it will be unnecessary to ask the Council to place any further sum at the disposal of the Committee for use during the ensuing year.

Dr. CHRISTISON moved that the above report be received and adopted. He said that, even if the Committee had met last year, there would have been but little to report upon; but subsequently some useful information had been derived from various quarters, and all parties concerned in the Pharmacopœia should be stimulated to look after matters with care during the approaching year. He would remind the Council that they were not entitled to make what was commonly understood as a profit out of the Pharmacopœia, but that the estimate should be made on a plan which would leave a moderate surplus.

Dr. QUAIN seconded the motion.

Dr. A. SMITH said he was no party to that report, which he had not seen till it appeared on the programme. The Committee met yesterday, and Dr. Redwood was summoned to meet them. Dr. Quain, Dr. Christison, Dr. Sharpey, and himself engaged in desultory conversation up to the time of the meeting of the Council, and there was no resolution passed at that meeting.

Dr. CHRISTISON reminded Dr. Smith that after he left the Committee continued to sit.

Dr. SMITH observed that he would not continue sitting in a committee when they were summoned to the Council-room. He asserted that what was called Dr. Redwood's "Report on the Progress of Pharmacy" was only a report of discussions which took place at a meeting of the Pharmaceutical Society; and he regarded the report now before the Council as waste-paper, and would suggest that it be amended.

Dr. APJOHN thought it very desirable that the Committee should furnish the Council with a summary of the researches made by them, because, from the remarks made by Dr. Smith, he was disposed to think that no researches had been made. If he was wrong, Dr. Christison could contradict him; but if he was right, then he agreed with Dr. Smith that the report was so much waste-paper, and would tend to mislead people who were not conversant with such questions. He wanted the Committee to be an efficient one, but he could not see that they had been doing anything.

Dr. QUAIN observed that the Council had assigned a duty to the Committee, and he believed that they had discharged it as faithfully and efficiently as any Committee.

Dr. A. SMITH: No, no. I say we have not. (Order, order.)

Dr. QUAIN (in continuation): That duty was to take care that an accurate record of what was done in pharmacy was kept, and they had engaged the gentleman under whose care the last Pharmacopœia (which was admitted to be a great success) was constructed, to devote himself to the work of

securing that the next edition should be as perfect as possible. He had greater faith in that gentleman's opinion than he had in the opinion of those who last addressed the Council—(Sir D. Corrigan: Order)—for he knew the value of Dr. Redwood's work in relation to the Pharmacopœia.

Dr. A. Smith wished to explain that he did not insinuate a word against Dr. Redwood. He was perfectly willing to admit his capacity, and he regretted that this allusion to that gentleman should have been made. What he stated, and what he adhered to, was that the report presented to the Committee by Dr. Redwood was not a report on the progress of pharmacy.

Sir D. Corrigan said he rose to present a humble petition to the Pharmacopœia Committee that they would insert after each article its degree of solubility in water. At present they only put the fact that such an article was soluble in water.

Dr. Quain thought the suggestion very proper.

Dr. Christison: I must support Dr. Quain's statement with regard to Dr. Redwood, so far as to say that I have more reliance in Dr. Redwood in directing what should be in the Pharmacopœia than I have either in Dr. Smith, Dr. Apjohn, Dr. Quain, or myself. (Cheers.)

The resolution was carried, and, on the motion of Dr. Bennett, seconded by Dr. Parkes, the Committee was re-appointed, the names of the members being—Drs. Christison, Quain, Sharpey, and Aquilla Smith.

Visitation Committee.

Dr. Alexander Wood moved—"That it is desirable that the visitation of the preliminary examinations and those of the Licensing Boards be recommenced, and that a Committee be appointed to consider the best means of doing so." The Committee to consist of Dr. Alexander Wood (Chairman), Dr. Humphry, Dr. Thomson, Mr. Quain, Dr. A. Smith, Dr. Sharpey, Dr. Storrar. He said that the visitations had been suspended last year on account of the progress of the Medical Bill, which required so many attendances in the Council that they could not be carried out. It was desirable, however, before they were resumed that a Committee should report upon a scheme, because objections had been made to the mode of carrying them out.

Dr. Humphry seconded this, and it was carried.

The Council adjourned to Monday, the 10th.

Sixth Day.—Monday, July 10.

The Council reassembled at 2 o'clock.

The amended report of the Committee on Professional Education was read.

Dr. Parkes said that the Council had confirmed all the more important parts of it, so far as the matter of it was concerned; but, with regard to the manner in which certain things should be expressed, criticism must be of advantage. The report had been circulated amongst the members, and had received many alterations in language; and having gone through that ordeal, it would be wasting time to have any debate upon the greater portion of it. The first two pages were simply matters of fact of which the evidence was at hand, and he could not conceive that any objection could be made to that part.

Dr. Thomson suggested that the report might be conveniently divided for the purpose of discussion into three parts, which he pointed out.

The President suggested that they should proceed page by page, observing the divisions mentioned by Dr. Thomson.

This was agreed to, and a long discussion took place, which, however, presented very few features of public interest, until the clauses relating to the establishment of a Conjoint Board were reached.

Dr. Alexander Wood then said that there were statements in that part of the report with which he could not agree. The first was: "It is impossible that the Government after introducing a Bill should let the matter entirely drop." How did they know the mind of Government? Would they take up the match-tax again? (Laughter.) For his part he thought they would not, and he hoped that they would also let the idea of passing a Medical Bill drop. At all events, holding the opinion that it was not desirable that the Government should interfere, he thought it would be foolish to send down to the Licensing Bodies anything in the nature of a threat that Government interference would bring the matter about if it was not done voluntarily. Again, he did not like the reference in the same paragraph to "other persons" as being "ready to take the matter up," and he would move the omission of the whole paragraph.

Sir Dominic Corrigan seconded this on the ground that the paragraph was not only a threat against those who might not see their way to a combination, but it contained an insinuation that such bodies were careless of the lives of people.

After some further discussion the omission of the paragraph was agreed to.

Some further amendments having been made, the following resolution was agreed to on the motion of Dr. Parkes, seconded by Dr. Andrew Wood:—"That the report of the Committee on Professional Education, as now amended, be received and adopted, and that copies be sent to the several Licensing Bodies for their consideration."

Dr. Bennett called the attention of the Council to the fact that the unamended report had been published in the papers. He thought it was extremely undesirable that any reports of committees should go forth to the public until they were finally received and adopted by the Council.

The following is the report of the Committee on Professional Education, as finally amended and accepted by the Council:—

The Report of the Committee of 1869 on Professional Education, and the replies to the letter of the Chairman from Teachers on Medical Education, were forwarded to the Licensing Bodies, and answers were received from them in 1870.

All the answers did not arrive in time to be presented at the meetings of Council in 1870, and accordingly an interim report only was then laid before the Council (Minutes, vol. viii., p. 11). By a resolution of Council (Minutes, vol. viii., p. 105), the Committee on Education was re-appointed, and directed to report at a future meeting of the Council.

Subsequently, replies to the first Education Report having been received from all the Licensing Bodies, they were printed and distributed, last autumn, to the Members of Council, and are contained in the Appendix to the 8th volume of the Minutes of the Meetings of the Council.

The probability that an Act to regulate Medical education would be passed in 1870, rendered it inexpedient to discuss last year many of the suggestions contained in the Education Report, and in the replies sent in by the Licensing Bodies, for if the Medical Bill of 1870 had been passed, it would have necessitated a revision of the whole subject of Medical education and examination, and would have rendered any previous decisions null and void.

During the last two years very important alterations have been made in the system of education and examination by some of the Licensing Bodies, and several of the suggestions of the Education Committee have been met.

The Royal College of Physicians of London, by a rule passed in April, 1871, requires from every candidate for its Licence, evidence that he has discharged the duties of clinical clerk, and of dresser, for periods of three months respectively, and thus one important recommendation of the Education Report has been carried out.

The Royal College of Surgeons of England, on the reception of the report, appointed a Committee to consider it, and eventually determined to act on the opinion of their Court of Examiners of December 16, 1869, that "every part of the knowledge included in, or accessory to, the education of candidates for the diplomas of the College ought to be taught and learnt practically." The College has, therefore, introduced into its curriculum clauses which ensure practical instruction in chemistry, pharmacy, general anatomy, and physiology and Surgery, and has ordered that every candidate at an early period of his Hospital attendance shall be individually engaged at least twice a week in the observation and examination of patients, under the direction of a recognised teacher during not less than three months—this is for the purpose of enabling him fully to profit by the Hospital instruction; and in addition to this, every candidate is ordered, as formerly, to be also a dresser, or to have charge of patients equivalent to the work of a dresser, for six months, and is also to attend demonstrations in the post-mortem rooms of a recognised Hospital during the whole period of Surgical Hospital practice. And to ensure that these regulations shall be carried out, the College has now instituted for the diploma of Membership (as it had previously done for its Fellowship) a practical clinical Surgical examination in addition to the examination in bandaging, etc., formerly instituted.

The Society of Apothecaries of London has also made some important changes. Since June, 1870, all candidates have been required to produce evidence of having served the office of clinical clerk for at least six weeks, and of having been examined at the class examinations conducted by the teachers of the respective subjects. The clinical examinations which were instituted by the Society on June 13, 1867, have been made an integral and invariable portion of the final examination. Students attending for their first or primary Professional examination have been required, since December, 1870, to undergo an examination on Medical regional anatomy on the healthy subject; and in various other parts of the examinations increased practical work has been demanded.

It is impossible to overrate the effect which the regulations of these great Licensing Bodies (to whom the majority of English students go for their licences) will have on Medical teaching in England. A great part of what was desired by the Committee of Education has been thus obtained, and it seems only just that the Council should fully recognise the improvements which have been made.

The four English Universities have made no change in their systems of examination.

In Scotland, the Royal College of Physicians of Edinburgh now requires all candidates for the licence, without exception, to undergo a clinical examination in Medicine in the Royal Infirmary of Edinburgh.

The Royal College of Surgeons of Edinburgh had previous to July, 1869, instituted practical clinical examinations, which are carried on in a Surgical Hospital, and they have since made no change in their regulations.

The Faculty of Physicians and Surgeons of Glasgow has not essentially altered the mode of conducting the examinations, but in some points the examination has been more systematised, especially as regards the clinical part. All candidates, whether previously qualified or not, are subjected to an examination at the bedside, both in Medicine and Surgery. The written part of the examination has also been extended.

The University of Edinburgh has made no alteration. Practical study, and class examinations in all branches of Medical education, clinical examinations of the students in Medicine, clinical examinations of candidates both in Surgery and Medicine, were in force for some time previous to the report of this Committee in 1869; and the University contemplates

the requirement of study as clinical clerks and dressers, so soon as the General Council report in favour of that measure.

The University of Aberdeen has annulled the regulation which exempted the candidates who obtained the highest place in the written examination from being examined orally, and, in accordance with the wish of the visitors from the Medical Council, enforce the oral examination on all.

The University of Glasgow has made the clinical examination more efficient, but, otherwise, has made no change.

The University of St. Andrews has made no alteration.

In Ireland, the University of Dublin has improved the clinical examination, and now systematically enforces it on all candidates. The previous Medical examination—viz., in physics, chemistry, botany, Materia Medica, and descriptive anatomy—is now compulsory.

The Queen's University in Ireland has instituted clinical examinations in Medicine and Surgery in the final examinations for the M.D. and Master in Surgery.

The Royal College of Surgeons of Ireland had formerly instituted a practical examination in bandaging, etc., and the Council has now ordered clinical examinations in Surgery and in Medicine for the final examination.

The King's and Queen's College of Physicians has instituted a clinical examination, which is carried on in the wards of an Hospital for the second or final part of the examination.

The Apothecaries' Hall of Ireland has extended the period of examination from two to six days, so as to more practically test the candidate's knowledge, and they have instituted a clinical examination of patients, which is enforced on all candidates.

It cannot be doubted from the previous statements, which have been drawn from official communications received from each Licensing Body, that great progress has been made in the path indicated in the various reports of the visitors of the Medical Council, and of the Committee on Education.

There are, however, some suggestions in the Education Report which have not yet been carried out, and on which it seems desirable the Council should express an opinion, while there are other suggestions which it will be better to keep in abeyance.

Of the former kind, there are some of considerable importance:—

1st. The separation of the teaching of pharmacy and therapeutics, the former being made an early, and the latter a late, course in the curriculum.

It seems desirable that the instruction in pharmacy should be separated from that in therapeutics, and that the former should be obtained at an early, and the latter at a later period of the Professional curriculum.

So, also, it will be for consideration how far practical instruction in drugs and pharmaceutical preparations might be substituted for formal lectures. In the last two sessions a plan of this kind has been carried on in Aberdeen.

2nd. The recommendation that pathological anatomy should be made a separate course has not been carried out in all cases, but several of the Licensing Bodies have endeavoured to meet it by requiring a certificate of attendance, and of practical instruction in the dead house.

It is desirable that systematic instruction in pathological anatomy should form a part of Professional education.

3rd. The Committee on Education strongly advised the enforcement of more regular class examinations. Certain of the Licensing Bodies have ordered that all students shall produce evidence of having undergone these examinations, and it is desirable that all the Licensing Bodies should issue regulations that class examinations shall form a necessary part of every course of instruction.

The other points raised in the Education Report of 1869, and which we advise should not be discussed at present, are—the length of the sessions, the method of teaching chemistry, and the application of chemistry to physiology and pathology, the teaching of minute anatomy, and the definition of the areas of instruction and of examination.

The Council will doubtless remember that the Education Report of 1869 strongly recommended the formation of Conjoint Examining Boards, so as to reduce the number of licences to practise from nineteen to three, and to make each licence a qualification in both Medicine and Surgery; that the Council authorised circulars to the Licensing Bodies in this sense, and that in the autumn of 1869 various conferences took place between some of the Licensing Bodies, and replies were received from many of them favourable to the proposed combinations. Subsequently the action of the Government in introducing a Bill suspended all negotiations of the kind.

The withdrawal of that Bill makes it desirable that these negotiations be resumed.

It might indeed be argued that the willingness of the Licensing Bodies to improve their examinations, and the fact that they really have improved them, renders it less necessary to revive the plan of an uniform examination for each division of the kingdom. But a moment's reflection will show that the proposal is still necessary.

The independent examinations for licences being as numerous as ever, the risk of inequality of standard in different parts of the kingdom still obtains.

This inequality may doubtless be to a certain degree corrected by more constant and systematic visitations, but the only effectual remedy in the opinion of the Council is the consolidation of examinations.

In a resolution, which was carried by 17 votes against 1 on February 26, 1870, the Council decided that it was of opinion a joint examining board should be formed in each division of the kingdom. It is, therefore, desirable that the Council should address a letter to each licensing body, transmitting a copy of the resolution of February 26, 1870, and urging that arrangements for the formation of the boards shall be undertaken without delay.

Conjoint Examining Boards.

Dr. Parkes moved: "That in case the arrangements for Conjoint Examining Boards are not complete in each division of the Kingdom by the close of the year, in accordance with the recommendations of the Council on the subject, the Executive Committee shall be authorised to seek an interview with the Lord President of the Privy Council, and to urge upon him the desirability of such Medical Legislation in the Session of 1872 as may carry out the object the General Medical Council had in view in passing the resolutions of February 26 and 28, 1870, and of July 7, 1871." It was his opinion that the resolution already passed upon this subject would be entirely nugatory, and that there would be no Conjoint Boards formed in the several divisions of the Kingdom. The arrangements for a Conjoint Board had made the greatest progress in England. The scheme agreed to by the Joint Committee of the two Colleges was an admirable one, and in some form or other he thought it would be carried; but it was impossible to deny that a great difficulty still existed. The assent of the Universities would only be obtained on certain conditions being fulfilled. If the Society of Apothecaries still continued giving its licences the Universities might say—"Until this Board is completely formed in all its parts we will not agree to give up the privileges we possess of giving licences to practise, and we must wait till a further arrangement takes place." Unless the Apothecaries Society decided to go to Parliament for a fresh Act it would continue to issue its licence; and in that case not only would there be two Boards, but the Apothecaries Society would possess the power of putting their men on the Register, and the Council could not prevent that being done. That Society might also compel the Royal College of Surgeons to admit their licentiates; but if they did not insist upon that they would get some other body to do so. The difficulty, therefore, was very great, and for that reason he did not believe that the arrangement would be made in England. Then, with regard to Scotland, Dr. Christison thought there would be no difficulty in the amalgamation of the bodies in that country. The greatest weight was due to the opinion of one who so thoroughly knew the condition of the Scottish schools.

Dr. Alexander Wood: I think Dr. Christison's words were that there were very great difficulties but he trusted that they might be overcome.

Dr. Parkes said his recollection was that Dr. Christison said the difficulties would be entirely overcome. However, if Dr. Wood's recollection was right, it would be all the better for the present argument, which was on the probability of failure. As to Ireland, he need say nothing to prove that the combination could not be effected there.

Mr. Hargrave: Why?

Dr. Parkes: For two reasons. After the close of the session of 1869, a Committee was appointed to confer with various Licensing Bodies upon different topics, and especially about these combinations. In the successive capacities of secretary and chairman, he had to confer with those bodies, and wrote a great many letters on the subject. The Irish members of the Council, no doubt, would remember being bothered with many letters, and the answers led him to believe that the Irish bodies would not combine. The whole thing put him in mind of the circulation of some meteoric bodies. At first it seemed as if a junction would be made; then the bodies rushed rapidly like a comet to the sun, and all at once they began to recede, and went off into infinite space. Again, Sir Dominic Corrigan had told them that it was impossible that they should join. [Sir D. Corrigan: No.] Then the hon. baronet said something so like that, that he (Dr. Parkes) could not tell the difference. Dr. Gull had expressed a desire to convert Sir Dominic, but though Dr. Gull, with his persuasive accents, could carry the whole Council with him in nearly everything, there was one thing he could not do, and that was, convert Sir D. Corrigan. Charm he never so wisely, he would not accomplish that; and if Sir Dominic was not converted, no Conjoint Board would be formed in Ireland, because Sir Dominic had power to prevent it, and would prevent it. The only way in which he could be converted was by Act of Parliament. (Laughter.) Therefore, in view of this state of things and the prospect before them, the Council ought to decide whether its resolution was to be a mere sham or not. If the Licensing Bodies did nothing, what ought to be the action of the Council? If they meant to go to Government, it was of extreme importance that the Council should be in London when the Bill was read a second time before the House of Commons; and the best thing that could be done seemed to him to be to give the Executive Committee the power proposed in the resolution. If the thing was left alone altogether, the result would be threefold. The Council would lose credit; it would also lose its initiative; and it would hand that initiative over to other persons, who would carry a Bill such as the Council would not desire.

Dr. Gull said he had the greatest possible pleasure in seconding this. No one sitting at that table could doubt the desirability that the Medical student who had acquired the requisite amount of knowledge for his Profession should be examined once for all, and not sent from A to B, and from B to C and D, each of whom took a little honey from the comb—a little money out of the bag which did not contain much. Besides that, they wanted an uniform standard of examination. There were standard weights and measures for things of the least possible value, and surely they ought to have something

like an approach to a standard of intellectual qualifications for so important a Profession.

Dr. Alexander Wood moved the previous question. He cordially approved of what the Council had done as to expressing its wishes on the subject, sending out its opinions to the Licensing Bodies, and inviting them, before the close of the year, to show what they had done in this direction; and there was no man at the table more anxious than he was of seeing a certain uniformity introduced into Medical examinations. But he felt that the Council would assume an unwise attitude if it passed this resolution. Dr. Parkes had said at one stage of the proceedings that everything was *couleur de rose* with regard to the prospects of combination; but now he sought to dragoon them into it by troops, because otherwise there was no chance of combination. There was something which he would not sacrifice even for the Conjoint Board, and that was the independence of the Profession. Some persons seemed to be quite prepared to lay the Medical Profession under the heels of the Government; but he strongly objected to this. Government was striving to get the whole of the education of the country under its control; and he could not conceive anything more disastrous in a free country than that it should succeed in doing so. He therefore opposed the idea of the Council going to Government for any measure of the kind; and, most of all, he would oppose any motion that put into the hands of the Executive Committee a power which should be in the Council only.

Dr. Andrew Wood supported the proposition made by Dr. Parkes. It was not the Government who were seeking to rule them with a rod of iron, or to trample on their necks. If the Government were to be ever so quiescent, there were other parties who would force on the subject. It was the duty of the Council to give counsel to the Licensing Bodies as to the best plan of maintaining their rights in such a way that they should not clash with the interests of the general public. If Licensing Bodies held particularly valuable privileges, it should not be forgotten that they held them only for the public benefit. Whenever the time came that such privileges were inconsistent with the general good, then would be the time for taking away the privileges. He believed, however, that the two could be harmonised; and if in England, Scotland, and Ireland they would all go to work with a feeling that the combination was possible, it would be done. Their motto should be—*Possumus quia posse videmur*. There were difficulties in Scotland which had to be overcome; but it was the part of wise men and wise corporations to endeavour, by their own action, to do that which otherwise might be forced upon them in a way which would be highly objectionable. The Council ought not to draw back after what it had done, and, above all, it ought not to entertain any jealousy of Government. In all the negotiations of last year not the least desire had been shown on the part of Government to override the Licensing Bodies or to tyrannise over the Medical Profession; nor was there any disposition on the part of any individual member of the Government to do anything that would affect the independence of the Profession. As to Ireland, why should the thing be impossible in that country? Sir Dominic was not Member for all Ireland, nor was he a Daniel O'Connell, who could dictate to all Ireland. He did not believe, however, that Sir Dominic quite meant all he said. (A laugh.) Their Irish friends were sometimes carried away by their *perfervidum ingenium* to utter words which were not intended to convey all that the same words would when uttered by men on this side of the Channel. (A laugh.)

Mr. Hargrave was astonished that anyone should say that it was impossible to carry out the scheme in Ireland. It was a perfect insult to Ireland to say that they could not sit down and agree to the combination if they thought it advisable to do so.

Sir D. Corrigan explained that he had never proposed that men should not be thoroughly examined before they entered the Medical Profession, but he always advocated that the Licensing Bodies should be left as they are, and that men should go where they pleased. He objected to the examination by a Conjoint Board being the first step. What he had said was that the difficulties in the way of combination in Ireland *appeared* to be insurmountable. The two universities could scarcely be expected to unite. The College of Surgeons and the College of Physicians had been in communication on the subject ever since 1865, and they had arrived at no result. Dr. Parkes had blown hot and cold. In the report everything was flattering, and there were no insurmountable difficulties; but in the speech he (Dr. Parkes) had last made, the thing was represented as impossible, not only in Ireland but in England. How was that discrepancy to be explained? For his own part, he thought the two statements to be totally irreconcileable. The resolution now under discussion proposed to place the Council, tied hand and foot, into the power of the Executive Committee, and he must therefore oppose it. He was against going to Government at all, for when did Government show any consideration for the Profession? The Lunacy (Ireland) Bill was an example of the way in which Government dealt with the Medical Profession, and he would not agree to trust the Lord President of the Privy Council or any Member of the Cabinet with drawing up a Bill.

Dr. Bennett pointed out that the resolution did not propose to do anything of the kind indicated by Sir. D. Corrigan; but simply to authorise the executive committee to urge upon the Lord President of the Privy Council the desirability of such Medical legislation as would carry out the objects of the Medical Council. It was his opinion that if the Council meant these Joint Boards to be formed (as they did), they ought to say very plainly that if they were not carried out by voluntary effort, it would be imperative that Government should interfere; and he had no apprehension that Government would do anything of which the Council would not approve. By consent, Dr. Alexander Wood withdrew his motion of the "previous question," and moved the following amendment:—"That a meeting of the General Medical Council be held early in 1872, to receive the proposals of the bodies for Conjoint Examinations, and to consider whether any, and what steps should be taken to carry out the resolutions of the Council in favour of such combinations."

Dr. Storrar seconded this, and it was carried. It was then put as a substantive motion, and adopted.

Registration of Medical Students.

The report of the Committee was read as follows:—

Report.

1. The following table has been compiled from the returns according to Recommendation 6, sec. v. (Professional examination), of the Recommendations of the Council, 1866 (see vol. iv., p. 311)—viz., "that returns from the Licensing Bodies be made annually on January 1, to the General Medical Council, stating the number and names of the candidates who have passed their first as well as their second Examinations, and the number of those who have been rejected at the first and second examinations respectively."

This table has been submitted in form of proof to the registrars of the Licensing Bodies for revision, and the Committee have every reason to believe it correct.

Table for 1870.

Licensing Bodies and Qualifications.	No. of Exams.	No. Passed.			No. Rejected.		
		1st Exam.	2nd Exam.	Final.	1st Exam.	2nd Exam.	Final.
Royal Coll. of Physicians of London—							
Membership	3	3	...	17	...	...	4
Licence	2	...	...	51	2	...	13
Royal Coll. of Surgeons of England—							
Fellowship	2	62	...	26	22	...	6
Membership	2	404	...	307	187	...	64
Licence in Midwifery	1	...	...	8	...	...	3
Society of Apothecaries of London—							
Licence	2	189	...	201	50	...	46
University of Oxford—							
M.B.	2	3	...	2	2	...	...
M.D.	Essay	...	...	...	...	...	...
University of Cambridge—							
M.B.	3	16	6	11	3	4	5
M.D.	Essay	...	...	...	...	...	...
M.C.	1*	...	...	...	...	...	1
University of Durham—							
M.B.	1	...	...	1	...	...	...
M.D.	Essay	...	...	...	...	...	...
L.M.	2	...	...	...	...	...	...
M.C.	2	...	...	...	...	...	...
		1st M.B.		2nd M.B.			
University of London—							
M.B.	2	34†	...	24	22	...	...
Royal Coll. of Physicians, Edinburgh—							
Licence	2	9	...	107	6	...	30
Royal Coll. of Surgeons, Edinburgh—							
Licence	2	1	...	41	3	...	9
Royal College of Physicians and Royal College of Surgeons, Edinburgh—							
Licence in Medicine and Surgery	2	41	...	80	34	...	34
Royal College of Physicians, Edinburgh, and Faculty of Phys. Surg. Glasgow—							
Licence in Medicine and Surgery	2	6	...	19	1	...	10
Fac. Physicians and Surgeons, Glasgow							
Licence	2	38	...	24	23	...	26

* Preceded by the three M.B. examinations.

† Of this number, two were examined in physiology only, and two passed without physiology.

Licensing Bodies and Qualifications.	No. of Exams.	No. Passed. 1st Exam.	No. Passed. 2nd Exam.	No. Passed. Final.	No. Rejected. 1st Exam.	No. Rejected. 2nd Exam.	No. Rejected. Final.
University of Aberdeen—							
M.D.	...	...	...	...	...	...	...
M.B. and M.C.	3	55	36	32‡	9	5	6
M.B.	...	...	...	...	...	...	...
University of Edinburgh—							
M.D.	...	...	...	...	...	...	...
M.B. and M.C.	3	87	84	58§	42	33	15
M.B.	...	...	...	...	...	...	...
University of Glasgow—							
M.B.	3	34	39	43	15	11	11
M.D.	...	1	...	3	...	...	...
M.C.	...	...	...	...	...	...	...
University of St. Andrews—							
M.D.	1	...	...	10	...	...	..
K. and Q. Coll. of Physicians, Ireland—							
Licence in Medicine	2	...	..	97	2	...	11
Ditto in Midwifery	1	...	...	78	...	...	17
Royal College of Surgeons, Ireland—							
Licence	...	118	96	96	36	12	16
Fellowship	3	8	8	8	1	1	1
Licence in Midwifery	...	...	...	13	...	...	1
Apothecaries' Hall, Ireland—							
Licence	2	20	...	19	2	2	...
University of Dublin—		1st M.B.		Deg. M.B.	1st M.B.		Deg. M.B.
M.B.	1	10	...	31	63	...	2
M.C.	...	...	...	16	...	...	4
Queen's University, Ireland							
M.D.	2	81	...	42	54	...	8
M.C.	1	...	...	32	...	...	...
M.D. and M.C.	...	...	...	...	...	...	...

‡ Of these, thirty took M.B. and C.M., and two M.B. alone.
§ Of these, fifty took M.B. and C.M., four M.B. alone, and four M.D. In addition, twenty-eight M.B.'s gave in their theses for M.D., which were approved by the Medical Faculty, and they were accordingly promoted to that degree.

2. The subjoined is a statement of the numbers of students registered in the following years. The numbers are:—

1866	936
1867	927
1868	927
1869	1164
1870	1160

(Signed) D. Embleton, Chairman.

This report was referred to the Executive Committee.

Visitation of Examinations.

The Report of the Committee on this subject was read as follows:—

The Committee on this subject, appointed on the 8th inst., beg to report—

1. That in their opinion the time has now come when an interchange of visitors between the three Branch Councils would strengthen confidence in the visitation, and would tend to assimilate the character of the examinations of the various Boards.

2. That with the view of carrying out the resolution of the Council of July 8, a Committee of Visitors be appointed to make arrangements what examinations should be visited, and for carrying out the visitation.

3. That the Committee of Visitors consist of eight, four to be elected by the English Branch Council, and two by the Scottish and Irish Branch Councils respectively.

4. That each examination reported on shall be visited by a due proportion of members of the Branch Councils, other than the one in that division of the kingdom where the examination is conducted.

5. That it is not desirable that visitations should take place in the case of those Examining Boards with regard to which it shall appear to the Visitation Committee that there is a reasonable prospect of a conjoint examination being formed.

(Signed) Alexander Wood, Chairman.

The consideration of this report was postponed to the next meeting of the Council.

The following resolutions were then agreed to without discussion:—

Moved by Dr. A. Smith; seconded by Dr. Storrar: "That the powers and duties heretofore delegated to the executive Committee, except those delegated by sections 6, 7, and 8, of chapter viii. of the Standing Orders, shall be vested in the Committee until the next meeting of the General Medical Council."

Moved by Dr. A. Smith; seconded by Dr. Storrar: "That the cordial thanks of this Council are due, and are hereby tendered, to Dr. Andrew Wood, for his services as Chairman of the Business Committee, during the present session of the Council."

Moved by Dr. A Smith, and seconded by Dr. Storrar: "That the thanks of the Council are hereby cordially tendered to Dr. Paget, the President, for his efficient services during the present session of the Medical Council."

The proceedings then terminated.

ORIGINAL COMMUNICATIONS.

CASE OF FRACTURE OF THE EPIPHYSIS OF THE TIBIA AND FIBULA RESULTING IN GANGRENE.

By THOS. GIBSON, M.D., M.R.C.S.

J. D., a boy, aged 15, was engaged in March last assisting to remove some earth from the side of a house with a wheelbarrow, and when between the shafts it suddenly tilted, and the shaft nearest the outside of the right knee struck it forcibly, and produced very great displacement of the knee inwards, immediately below the knee-joint. When called to the case soon after the accident—the patient being about a mile from my residence—and on getting him to bed and the trousers removed, at first sight I thought that I had a case of complete dislocation of the knee-joint inwards to deal with, but on manipulation I found it otherwise. The fracture was easily reduced by extension and coaptation, and a "Hide's" splint applied to both sides of the knee-joint and a long splint to the outside of the leg also, after carefully bandaging the limb from the toes upwards. But the most serious part of the accident, to my mind, was the perfect numbness of the large toe immediately after reducing the fracture, and the cold feel of the part, so much so that I immediately took down the bandages and laid the limb into position upon cushions, elevating the knee-joint and keeping the fracture in position by all the available means I had at hand. On visiting the case next morning I found that there was extensive vesications all along the calf of the leg and into the popliteal space, and that the large toe especially, as well as the other toes, had begun to assume a bluish-black appearance. Still, there was not very great swelling of the foot, nor had the vesications increased; but there was considerable swelling about the neighbourhood of the joint, and considerable pain was also felt at and around the joint. I ordered warm fomentations to the joint, taking away everything but a soft pillow from under the knee, and likewise placed a hot bran poultice to the foot, both of which were repeated frequently, and gave a pill every three hours, with cal. opio, and a febrifuge mixture, with antim. tart. The pain, however, at the end of the third day was most excruciating, the gangrene more developed, and every indication that if amputation was not at once resorted to the patient would sink. In fact, with the objection that the friends have generally in country places to amputation, and the distance from any Hospital or Infirmary—about forty miles—renders this proceeding one of considerable anxiety to the country Practitioner in this district; but on my explaining to the friends the absolute necessity for it they gave their consent, and I am happy to say that the operation which was then undertaken was followed by the recovery of the patient in a very speedy manner. The limb was taken off about the middle third of the thigh, and so extensive was the injury to the joint from congestion and gangrene that there was nothing to spare. On examining the limb it was evident that the veins had, by the fracture at the epiphysis, been so injured that phlebitis had been set up by compression of their coats, and also from the obstruction to the flow of blood upwards that coagula had formed in them, so as effectually to stop all circulation; and this had evidently been the result at once, or else the large toe would not so soon have put on the peculiar appearance and given warning of danger before either bandages or splints had been applied.

Bedford.

MIDWIFERY NOTES.

By FRANCIS R. HOGG, R.H.A.

If there is one branch of the Profession more than another deserving of high remuneration, it is that of midwifery—terribly anxious, always uncertain, nine cases going on well, the tenth perhaps most complicated, two lives as well as the reputation and the bread of the civil Practitioner at stake, all his previous successes possibly obliterated by some fearful result sometimes beyond the control even of the most skilful.

Case 1.—A., primipara, aged 28; breech presentation, labour, delayed by pelvic exostosis; with considerable difficulty feet brought down, traction tried, the head remaining immovable. After ineffectual attempts to introduce the forceps, or to perform craniotomy with maternal safety, further traction unfortunately

brought the body away, leaving the head behind. The bulk was gradually diminished by the blunt hook, which, firmly inserted into the fœtal cranium, could be conveniently used with considerable force, and at last Surgeon Manley, V.C., overcame the difficulty, Dr. Butler, Civil Surgeon, thus far having kindly assisted. The patient under chloroform two hours, no hæmorrhage. Subsequent peritonitis was treated by leeches, mercurial inunction, warm dilute carbolic acid vaginal injections, turpentine fomentations, hypodermic injections of morphia, anodyne applications, opiate suppositories. Result: A good recovery.

Case 2.—B., at St. Thomas Mount, Madras, her second labour, through intense heat, was followed by puerperal mania, hatred to husband, child, and accoucheur the prominent features. At Woolwich, in the seventh month of next pregnancy, reduced to death's door through morning sickness, at last seeks Medical advice. For fifteen days every remedy tried in vain, but, before inducing premature labour, a hypodermic injection of morphia was applied over the stomach. Not merely did the vomiting cease immediately, but in six hours labour came on. She swallowed quantities of brandy, and in an exhausted condition gave birth to a weakly infant. Within two hours profuse hæmorrhage occurred, checked by another hypodermic injection of morphia over the uterus. Soon after vaccination, infant contracted variola. Result: Mother and child now well.

Case 3.—C., seven days before labour in the winter, when in a ward with nine patients, attacked with erysipelas of the head; eyes closed, features lost. Excepting toughness of membranes requiring puncturing, the labour in a special ward was natural. The infant (unavoidably brought up by hand) three days after contracted disease, and tinct. ferri perchlor. was given in the bottle. Result: No other patients attacked; mother and child now well. I had a scratched hand, but using carbolic acid and carron oil sustained no injury.

Case 4.—D. awoke suddenly out of sleep to find three inches of funis dangling out of the vagina; foot presentation, and feeble pulsation. Traction made; child still-born, followed by another (breech) presentation, also dead. Aborted thrice previously with twins. A twin premature birth also occurred. She was a twin, her husband a twin, the same age to a day as herself, and her mother twice bore twins.

A REPORT OF THE

LAST ILLNESS OF HER MAJESTY WILHELMINA FREDRIKA ALEXANDRA ANNA LOUISA, QUEEN OF SWEDEN.

BASED ON AN ABRIDGEMENT OF THE NOTES DAILY TAKEN OF THE CASE.

(*Translated from the "Hygiea" for April*, 1871.)

By J. W. MOORE, M.D. M.Ch. Dub., L.K.Q.C.P.I.,
Ex-Scholar Trinity College, Dublin.

From the very commencement of the current year her Majesty the Queen, then just returned from a winter journey to Holland, where she had been present at her mother's decease, had occasionally suffered from considerable *malaise*, which did not, however, eventuate in any actual indisposition, or interfere with the daily promenades, usually taken in an open carriage, irrespective of the changes of the weather and the temperature.

When, in the beginning of the month of February, his Majesty the King fell seriously ill, her Majesty overstrained her not very great strength during a period of two or three weeks, staying for a large portion of the day in the sick-room, where she shared the nurse-tending, and read aloud for several hours daily. A slight laryngeal catarrh, with hoarseness and tolerably considerable prostration of strength, but without pyrexia, shortly showed itself, so that her Majesty was obliged to take to her bed for some two days. The symptoms were at this time of a very transitory character, and disappeared after the employment of the treatment commonly adopted in this affection.

Her Majesty afterwards felt perfectly well—the *malaise* above alluded to excepted—until March 13, when a second attack of laryngeal catarrh began to show itself, with symptoms exactly corresponding to those observed in the previous illness, but combined with a more pronounced degree of prostration than was commensurate with the other symptoms. The expectoration was trifling, and no fever appeared; yet, on March 16 and 17, a violent but very transitory pain, neuralgic in character, set in in the forehead and neck. The catarrh diminished as regarded the mucous membrane of the trachea, but nevertheless gradually spread down towards the lungs, accompanied with the usual physical signs, so that on March 19 her Majesty was again obliged to take to bed. The malady after this made uninterrupted progress; the loss of strength was also on the increase. The expectoration varied; it was at times tolerably easy, at times distressing, in consequence, partly, of a viscid condition of the mucus, and partly of a difficulty in coughing up to which her Majesty had been subject for several years back. The appetite failed and sleep diminished, but no fever or increase of temperature set in before March 24, when these symptoms appeared in a slight degree, and the morbid process commenced to extend to the finer air-passages, especially in the left lung (capillary bronchitis). The patient slept better than during the preceding nights.

On the morning of March 25 Professor Malmsten was called in in consultation. During the day the expectoration was difficult, and the sputa viscid, with purulent masses mixed through them. No appetite. Physical examination announced an extensive capillary bronchitis, with an intimation of commencing consolidation in the lowest part of the left lung. The temperature in the evening was a little heightened; the pulse 82; the rate of respiration 40 in the minute.

28th.—The accumulation of mucus gradually increased in both lungs, and the patient's state began to be more dangerous. The following night was a restless one, notwithstanding the use of a hypnotic. The evening temperature was 103·3° Fahr.; the pulse 108; the respirations 60 per minute.

27th.—In the forenoon some expectoration occurred after the administration of a remedy intended to effect this end, when the fever and the accumulation of mucus somewhat lessened, but the changes in the lungs continued to be almost the same as on the preceding day. The fever and the temperature of the body were also towards evening slightly diminished, while the respiration was less hurried (the temperature 102·2° Fahr.; pulse 96; the respirations 50 per minute).

28th. Towards morning the cough was again very troublesome. On examination of the chest the consolidation in the lower third of the left lung appeared fully developed (broncho-pneumonia of the left side). The fever and loss of strength continued, and were on the increase; great thirst. In the evening the patient's state was worse, and the difficulty of breathing increased in consequence of the continued accumulation of mucus. A restless night was spent, and it became possible to recognise consolidation over the base of the right lung also (double broncho-pneumonia). The temperature was 104° Fahr.; pulse 106; the respirations 60 per minute.

29th.—Two hours' natural good sleep were enjoyed towards morning. The fever and the dyspnœa were subsequently diminished in some small degree, and the muco-crepitus became somewhat looser. During the day the patient took a few cups of beef-tea and of tea. In the afternoon, consequent on the fresh increase of accumulation of mucus, a very violent dyspnœal attack occurred, during which the pulse became almost imperceptible. On this, as on the preceding days, her Majesty complained little of any sufferings, but exclusively of the loss of strength and prostration, which incessantly increased. The consolidation seemed to be spreading in both lungs. The temperature was 103·9° Fahr.; pulse 108; the respirations 52 per minute. At night a sedative remedy was ordered, which for some hours produced the desired effect.

30th.—The accumulation of mucus again increased at night, and a fresh attack of dyspnœa occurred at 2 a.m., after which the weakened and extremely hurried respiration was constantly attended with a mucous râle in the trachea. The strength now utterly gave way, the pulse became almost imperceptible, and a quiet delirium set in. This state continued until towards the morning, when the pulse again rallied somewhat, and her Majesty swallowed a few cups of tea. The delirium disappeared about half-past ten in the forenoon, so that her Majesty was able in perfect consciousness to take her last farewell of her illustrious relations and others present. The death-agony meanwhile gradually made progress, and her Majesty the Queen died calmly and peaceably at twenty minutes past eleven in the forenoon.(a)

Vincent Lundberg.
P. H. Malmsten.
Edw. Edholm.

Stockholm, April 3, 1871.

(a) In accordance with the command of his Majesty the King, no autopsy was made. The body was embalmed by means of an injection arsenic on March 31, pursuant to the protocol drawn up on the subject.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

ROYAL FREE HOSPITAL.

EXCISION OF THE LEFT ELBOW FOR DISEASE OF THE JOINT, IN A WOMAN AGED 61, THE SUBJECT OF OCCLUSION OF THE AXILLARY VEIN.

(Under the care of Mr. JOHN D. HILL.)
[Reported by Mr. MURPHY, House-Surgeon.]

THIS case was interesting as regards the age of the patient and the difficulties which arose in the after-treatment, owing to occlusion of the axillary vein.

Patient has always enjoyed good health; has never suffered from rheumatism or gout. The only history of injury to the elbow is that of a twist received in a fall about eight years ago. This sprain, however, occasioned no inconvenience, and it was not until two years ago that the patient noticed anything wrong with the joint. At that time it suddenly became swollen and painful. Notwithstanding treatment, the elbow remained much in the same condition, sometimes better, sometimes worse, but becoming gradually more contracted and rigid, until about three months ago, when, without any apparent cause, it was attacked with throbbing pain and heat, and a fluctuating tumour formed at the outer and back part of the joint. This abscess was punctured at the Hospital, and a small quantity of unhealthy pus escaped. Since that time there has been constant pain in the part, with occasional numbness in the fingers. Her general health has also been failing. On admission (June, 1869), the elbow was found greatly enlarged, bent at a right angle, and immovably fixed in this position. The swelling was tolerably firm, and concealed the bony prominences. There was no fluctuation about the joint. The sinus left by the abscess above-mentioned led to bare bone. The forearm and upper arm were œdematous, and the superficial veins of the whole limb enlarged. In the axilla the deep vein could be felt as a firm cord. The anastomoses of the cephalic and acromial veins about the shoulder were very visible. The skin was dusky and somewhat brawny. Patient could not use the fingers, wrist, or elbow without pain.

June 23.—Mr. Hill excised the elbow-joint in the usual manner by a single longitudinal incision, removing the articular surfaces with a chain-saw. The ligaments were found reduced to pulp, the cartilages of the joint ulcerated in patches, and the joint surfaces of bones eroded at points. The limb was put up in the rectangular position from the first; an inside and an outside splint, interrupted opposite the wound to facilitate change of dressings, being used. Care was taken to keep the cut ends of the bone a little apart, leaving a space between them to prevent bony union. During the after-treatment the occlusion of the axillary and deep veins of the upper arm gave much trouble; at first inducing venous hæmorrhage from the incision, and subsequently retarding the healing of the wound, and causing much anxiety as regarded the hand, which on several occasions became much congested and swollen. Owing to this condition, also, the splints could not be fixed with sufficient firmness to prevent a certain amount of movement between the ends of the bones; and this mobility kept up a degree of irritation in the soft parts. The wound healed slowly by granulation in ten weeks' time; and now the splints are abandoned and the patient carries the arm in a sling. There is a fair amount of flexion, extension, pronation, and supination in the joint, and very trifling pain is occasioned by moving it beyond the free points. The patient can also move the fingers freely. Her general health is excellent.

ROYAL INFIRMARY, EDINBURGH.

EFFECT OF PREGNANCY ON A FIBROID OF THE UTERUS.

(Under the care of Dr. MATTHEWS DUNCAN.)
[Communicated by Dr. J. R. HARDIE.]

A. E., aged 29, is married, and is the mother of three children; she has been under observation for the last three years on account of a fibrous tumour of the uterus, the history of which may be of interest, especially at the present time, when so much attention is being given to this subject in the Medical journals.

A. E. had enjoyed good health up to the time that her second child was born, when she had an attack of what she calls child-bed fever. Twelve months after the fever she aborted at the third month, and since then she has aborted twice—at the eighth week and at the seventh week respectively. About four years ago a tumour was detected by her ordinary Medical attendant, low down in her abdomen, in the region of the right iliac fossa.

When first examined in the Infirmary she was about five months gone with child; a tumour, about the size of a fœtal head, occupied the right iliac fossa—it was closely connected with the uterus. As pregnancy advanced this tumour was observed to increase in size, and to become soft, which gave it a feeling as if filled with fluid. On returning, five months after her confinement—which was quite natural—the tumour had diminished in size, being then no larger than a turkey's egg. The probe entered the uterus three and a half inches. At this time she expressed herself as enjoying good health, complaining of nothing. A year and a half after her confinement the tumour had again increased in size, so as to fully occupy the upper part of the cavity of the pelvis. About this time she missed a monthly period, but at the following period she menstruated very profusely. When examined during the attack of suppression of the menses, the tumour was found to project above the symphysis pubis, to be about the size of the fist, and quite movable; on the other hand, after the menorrhagia, the uterus and tumour were observed to have shrunk into the pelvis.

Remarks.—It is a question of moment to patient and Practitioner—one which has been answered both in the negative and the affirmative—whether or not a fibroid of the uterus may disappear spontaneously. On the solution of this question our belief regarding the efficacy of remedies towards promoting this much-desired object will in a great measure be modified. The case before us undoubtedly proves that a change in size may be produced by the supervention of pregnancy, that the disease increases with the advent of pregnancy, and that after parturition, when the uterus undergoes involution, the fibroid partakes in the diminution of bulk consequent on this. In the case reported, the varying size of the tumour under different conditions was carefully examined and noted at the time. When first seen A. E. was pregnant; at that time the tumour was as large as a fœtal head. She did not make her appearance again until five months after confinement, so that an opportunity of judging of the full effects of involution of the uterus on the dimensions of the fibroid was not afforded us. At that time, however, a change in size was to be observed: it was reported as being not larger than a hen's egg. The next report was made eighteen months after confinement; then it had increased in size so as to fully occupy the cavity of the pelvis. During the whole of this period little or no treatment was had recourse to, so that the case illustrates what takes place when this disease is left to the unaided efforts of nature.

HEALTH OF INDIA.—In the North-Western Provinces the death-rate of February was, per 1000—cholera, 0·0; small-pox, ·03; fevers, ·63; bowel complaints, ·11; injuries, ·01; all other causes, ·15—total, ·98. There were 50 deaths from suicide (17 males and 33 females); 71 from wounds (46 males and 25 females); 357 from accident (188 males and 169 females); 80 from snake-bite and wild animals (40 males and 40 females); population, 83,014,921. In the general provinces the death-rate of February was, per 1000—cholera, 0·0; small-pox, 0·0; fevers, 0·8; bowel complaints, 0·1; injuries, 0·02; all other causes, 0·16—total, 1·1. There were 25 deaths from suicide (9 males and 16 females); 0 from wounds (7 males and 2 females); 76 from accident (48 males and 28 females); 36 from snake-bite and wild animals (14 males and 22 females); population, 6,701,239. In the Punjaub and its dependencies the death-rate of February was, per 1000—cholera, 0·0; small-pox, 0·15; fevers, 0·94; bowel complaints, 0·06; injuries, 0·0; all other causes, 0·43—total, 1·59. There were 4 deaths from suicide (3 males and 1 female); 4 from wounds (3 males and 1 female); 127 from accident (86 males and 41 females); 10 from snake-bite and wild animals (5 males and 5 females); population, 16,859,219.

HIGHGATE SMALL-POX HOSPITAL.—The half-yearly general Court was held last week at the Hospital. The report stated that for the half-year ending June 30, 706 patients had been admitted into the Hospital, 827 out-patients were vaccinated, and 86 Medical Practitioners were supplied with 516 charges of vaccine lymph. The half-yearly receipts and expenditure showed that £6172·16s. had been received, and £4206 10s. expended.

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Medical Times and Gazette.

SATURDAY, JULY 15, 1871.

THE GENERAL MEDICAL COUNCIL.

In our last number we commented on the proceedings of the Council during the first day only of the session, though we published the minutes of the second and third day also. These will have been read with much interest, and we doubt not that the acquittal of Mr. W. H. Kempster has met with very general approval. Mr. Kempster was charged with having been guilty of infamous conduct in a Professional respect, in that he had allowed Mr. W. Goodson, an unqualified Practitioner, to practise under colour of his name, and that he had signed certificates of the death of patients whom he had not personally attended. The evidence in support of the charges was very weak, and Mr. Kempster proved that Mr. Goodson was an ordinary assistant, and had practised only in that character, and that whatever he had himself done in the way of signing death certificates was in accordance with "the usage of the Profession." It is certain that it is largely the custom of Medical men to employ unqualified assistants, though we are very glad to learn from Mr. Baxter Langley's evidence that, "as to the proportions of unqualified and qualified assistants, there has been a very remarkable change within the last few years," the tendency to have qualified assistants having greatly increased; and it is also certain that it is not a very rare thing; though very objectionable, for a Medical Practitioner to sign a death certificate when the patient had for some time, or even all through the illness, been seen by the assistant only, and not by himself. Mr. Langley says that "it is a wide-spread custom, arising out of the necessities of the case, particularly where the assistant is resident at a long distance from the principal." We hope that this "custom" is really only followed in very exceptional cases, but it is easy to understand that in a wide-spread country practice a case may now and then occur when a Medical man must either sign a certificate of death on information derived from his assistant only, or, supposing the assistant to be unqualified, a certificate must be altogether refused, while it is well known that the popular impression is that the refusal of the certificate implies that there was something wrong or suspicious about the death. Anyhow, under all the circumstances, it would have been very harsh and unjust to have punished Mr. Kempster for having, in quite exceptional cases, followed what was shown to be a not very rare Professional usage, and the Profession at large will be glad that the Council unanimously acquitted him of the charge preferred against him. The Council then resolved that the facts which the investigation of the case had brought to their knowledge had impressed them "with the conviction that an amendment of the laws in force in regard to death-registry is most urgently required; and that a copy of this resolution be forwarded to the Secretary of State for the Home Department"—one more subject being thus added to the long list of those which Mr. Bruce believes, or affects to believe, that he has "under consideration."

These matters occupied the Council during the whole of the second day's sitting.

The third day was devoted to the consideration of Dr. Parkes' resolutions on the Education Report. These, and the results of the debates on them, we published last week. The first, recommending "that the instruction in pharmacy should be separated from that in therapeutics, and that the former should be obtained at an early, and the latter at a later, period of the Professional curriculum," was carried as proposed by Dr. Parkes. The second, recommending that the Professional instruction in midwifery should be extended, was lost, as also were the amendments proposed to it. The third and fourth were carried in slightly altered shape. These were—3rd, "That it is desirable that systematic instruction in pathological anatomy should form part of Professional education"; and 4th, "That it is desirable that class examinations should form a necessary part of class instruction." All the resolutions were of the permissive kind, each beginning with the words "It is desirable that" such and such a thing should be done. The Council does not venture beyond that; but a just and proper acknowledgment was made of the readiness, and even eagerness, with which the Licensing Bodies have adopted the suggestions of the Council.

On the fourth day Dr. Fleming moved, "That it is desirable that clinical instruction in Medicine and in Surgery should not be conducted so much by formal lectures in class-rooms as appears from the evidence before the Council to be the case at present; but that Hospital students should be divided into classes of limited numbers, so as to enable them, individually, to observe cases of disease, and to be examined upon them conversationally at the bedside or in proximity to it. Further, that it is desirable that, when possible, all students should serve as clinical assistants or dressers." This led to a long discussion, which showed that the general opinion was against the motion, as meddlesome or unnecessary. Sir Dominic Corrigan was, of course, against it; he seems to be nothing if not obstructive, but some of his observations were certainly true, if not polite; thus he remarked that "there are many qualified men who can neither teach nor learn," and that it would not be just to force students to attend the teaching of such men. To himself we feel that he was painfully unjust; he said that "he himself had found that pupils left him either because his brains were wearing out, or because from some cause or other he failed to interest them." The first suggested reason will be scouted by everyone, and we cannot imagine Sir Dominic failing to interest any medical student, while Irish students must surely worship him. No doubt they will rush forward to clear themselves from the reproach Sir Dominic's native modesty has laid them open to.

Dr. Gull moved as an amendment—"That the Council express their sense of the importance of making clinical instruction year by year more practical and more consonant with the phenomena of disease, and less dependent upon formal clinical lectures." Dr. Christison thought the amendment would be still better than it was if it stated that the Council "had observed with pleasure that great improvements had been going on in the mode of clinical instruction," and Dr. Parkes opposed any resolution on the subject, "because at the present time every Licensing Body had instituted a clinical examination," a recognition of the improvements made in examinations, which the barest justice to the Licensing Bodies demanded. Dr. Fleming, in proposing his resolution, stated

that the College of Surgeons of England now required, to their great credit, that every student should be engaged for three months in actual clinical work, but he did not state, as he might have done, that the Apothecaries' Society, and the College of Physicians of London, also require that all students shall have actually served as clinical clerks and dressers.

Eventually both the original motion and the amendment were rejected.

At the beginning of this, the fourth day of the session, Dr. Bennett made a statement with regard to arrangements for the formation of a Conjoint Examining Board for England, which will be read with great interest. After many schemes for this object had failed, one has been now agreed upon by a Conjoint Committee of the Royal Colleges of Physicians and Surgeons, which has apparently every prospect of being carried into effect. The principle of the scheme is—in the first place, a combined Board of the two Colleges, with such provisions as will facilitate the co-operation of other bodies who may wish to join them. The two bodies will not directly appoint their examiners, but will agree in the formation of a Committee of Reference, which Committee will look out for the best examiners that can be obtained, and submit those names to the several co-operating bodies for approval. The examinations will be conducted by these examiners, and the qualification obtained by the successful candidates will be a conjoint qualification in Medicine and in Surgery, as the result of the examination. Liberty will be left to the co-operating bodies still to confer their honorary distinctions and degrees, whilst each will abstain from independent action in giving admission to the Medical Register.

Mr. Quain said that, as representing the College of Surgeons, he did not dissent from anything said by Dr. Bennett. Dr. Gull stated that the University of London was willing to put all its privileges aside, and make its students submit to the examination of this Conjoint Board. Dr. Humphry said that the University of Cambridge entered heartily into the scheme, and were quite willing that their students should be subjected to the examination, provided they could insure that the Board was a sufficient one, and that the examiners were appointed in a proper manner. And he further stated that he believed this was the feeling of the University of Oxford also. And Dr. Embleton intimated the assent of the University of Durham.

The Profession will hail with great satisfaction the strong hope thus held out of the speedy formation of a Conjoint Examining Board for England; but we are sure that with that satisfaction there will be mingled a feeling of surprise and regret that the scheme does not include the Society of Apothecaries. Dr. Bennett stated that "scheme after scheme had been discussed and abandoned, in consequence of the objections to it, sometimes coming from the universities, but more frequently from the Apothecaries' Company, who were so bound by their Act of Parliament as to make it very difficult for them to accede to propositions to which otherwise there was reason to believe they would gladly assent." If the scheme is eventually carried out without the co-operation of this Society, there will certainly be a very wide-reaching regret that a body which has, since 1815, done more than any other single licensing authority to raise the status, enlarge the education, and improve the examination of the General Practitioner, should be left out, and effaced in this way. It is very difficult to believe in the absolute necessity of such a sacrifice. Surely, the Apothecaries Act must have been drawn with a skill which has been lost in these later times, if it is really impossible to find in it some loophole, by which the Society might join in the scheme did they heartily and with singleness of mind desire it.

The Council also resolved that the resolutions of February 26 and 28, 1870, on the formation of Conjoint Examining Boards, copies of which will be found in the minutes of this day's proceedings, should be again sent to each Licensing Body, together with a letter, "urging that the arrangements for the formation of such Boards shall be undertaken without delay, and shall be communicated to the President of this Council before the close of the present year." Sir Dominic Corrigan opposed the resolution, and "did not think that the plan could possibly be carried out in Ireland." But Dr. Apjohn stated that the University of Dublin were prepared to co-operate; and Dr. Christison said that he saw no difficulty in the way on the part of the Universities of Scotland.

The rest of the day was occupied by the discussion of a motion by Dr. Storrar for recommending that students should have the option of passing in chemistry before beginning their Professional study; but the motion was not carried.

On Saturday, the fifth day of the session, the Council got through various matters of routine, and details of necessity; but nothing of much public interest or importance came before them. The third-class certificates of the Board of Public Examiners in Literature and Science, Cape of Good Hope, were recognised as fulfilling the conditions of the preliminary examination. The Executive Committee was appointed. The report of the Finance Committee, showing an increase of income and a diminution of expenditure, was received and adopted. Dr. Sharpey resigned his office as one of the Treasurers to the Council, after holding it for ten years, and Dr. Bennett was elected in his place. The Committee appointed to consider and report on the returns from the Army and Indian Medical Boards sent in their report, recommending a slight alteration in the form of the returns, so as to make more clear the proportion of actual rejections of the candidates for commissions, and their report was adopted, and ordered to be recommended to the consideration of the Boards concerned. A report was received from the Pharmacopœia Committee, which certainly had not much in it, but which led to a slight passage of arms between Dr. Aquilla Smith, one of the members of the Committee, and his colleagues; Dr. A. Smith denouncing the report as being only so much waste-paper, and declaring that the Committee had not done its duty. But of course his colleagues did not agree with him, nor did the rest of the Council; the report was adopted, and the Committee reappointed. A Committee was also appointed to consider the best method of resuming the visitation of examinations. But the most interesting discussion of the day was caused by a resolution of Mr. Quain's, to the effect that when it is necessary to inflict any penal measure upon a registered Practitioner, it should not be necessary that such proceeding should be moved and seconded. It does seem objectionable that any individual member of the Council should be made to appear to take any specially active or prominent part in such proceedings; but there may be some difficulty in determining how such cases can be properly and well put before the Council except by a proposer and seconder, who shall have made themselves thoroughly acquainted with the particular circumstances of each case. Sir Dominic Corrigan objected to any change; said no inconvenience had arisen from the existing practice, and thought the Council ought to wait "till they were attacked and vilified." Mr. Quain replied that he thought, on the contrary, their laws should be such as to prevent anything of the sort, and remarked, "Suppose it occurred in Ireland, and we waited till somebody was shot;" to which Sir Dominic characteristically replied, "We always do"; but however congenial such a mode of proceeding, or of not proceeding, may be to an Irish temperament, it does commend itself to an English one, and the matter was "referred to the Executive Committee, to report on the most desirable mode of procedure in the case of motions having reference to any penal measures."

On Monday, the sixth day of the session, the amended report of the Committee on Professional Education came before the Council, and was very carefully considered and discussed, but we must content ourselves to-day with a very brief notice of

that part of the day's proceedings which had reference to the establishment of Conjoint Boards. Dr. Parkes moved, "That in case the arrangements for Conjoint Examining Boards are not complete in each division of the kingdom by the close of the year, in accordance with the recommendations of the Council on the subject, the Executive Committee shall be authorised to seek an interview with the Lord President of the Privy Council, and to urge upon him the desirability of such Medical legislation in the session of 1872 as may carry out the object the General Medical Council had in view in passing the resolutions of February 26 and 28, 1870, and of July 7, 1871."

In supporting his motion, Dr. Parkes took a very gloomy view of the prospects of any voluntary formation of Conjoint Examining Boards. He was of opinion, he said, that "the resolution already passed on this subject would be entirely nugatory, and there would be no Conjoint Boards formed in the several divisions of the kingdom." He does not believe that even the proposed arrangement for England will be carried out, unless, indeed, some way is found of gaining for it the co-operation of the Apothecaries' Society. Other members of the Council were, however, more hopeful, and it was not thought desirable, at any rate at present, to suggest threats of Government interference, and the following motion was carried instead of Dr. Parkes's:—"That a meeting of the General Medical Council be held early in 1872, to receive the proposals of the bodies for conjoint examinations, and to consider whether any, and what, steps should be taken to carry out the resolutions of the Council in favour of combinations."

The rest of the business was merely formal, and the session closed on the Monday afternoon. It has been, on the whole, certainly rather a grave and funereal-toned session. The talking has been unusually short and to the point, and even Sir Dominic Corrigan has been subdued and comparatively silent. We shall probably have more to say next week on the last day's proceedings.

THE SMALL-POX EPIDEMIC.

For some weeks past we have been marking the indications of decline in the epidemic of small-pox in London, and they are now so obvious that none can mistake them. In the week ending June 16 the average number of vacant beds daily in the Small-pox Hospitals of the Asylum Board was 247; in the week ending June 23 it was 307; and in that ending the 8th inst., last Saturday, it was, we are informed, 628. We have been also recording lately, week by week, a diminution of fresh cases, as returned by certain of the Health Officers of the metropolis. In St. Pancras especially, where the outbreak has been more severe than in any other part of the North of London, the number of fresh cases in the week has fallen to 26. But what will give most satisfaction generally to the public mind is the reduction that has taken place in the mortality from 240, 232, and 235 deaths in the three previous weeks to 167 last week. This is the lowest mortality since the end of January. After distributing the Hospital deaths it is found that all parts of London have participated in the improvement. In the West the deaths have fallen from 23 to 20, in the North from 66 to 41, in the Central districts from 11 to 10, in the East from 60 to 31, and in the South from 75 to 62. The fatality, we are told, was greatest last week in Somers-, Camden-, and Kentish-towns, and in Bermondsey, Battersea, and the St. George sub-district of Camberwell. Local outbreaks have also occurred at Homerton and in the Strand Union. Small-pox continues also to be fatally prevalent in Southampton, Weymouth, and Grimsby; in the two weeks ending last Saturday the annual death-rate from the disease was equal to 14, 21, and 24 per 1000 respectively in these three registration sub-districts. In Manchester and Salford the small-pox deaths were 15, against 23 in the previous week; and in Newcastle and Sunderland 60, against 79 in the previous week.

THE WEEK.

TOPICS OF THE DAY.

We have before us the draft scheme for an Examining Board for England prepared by the Committee of the Royal College of Physicians of London and the Committee of the Royal College of Surgeons of England. This scheme has yet to be submitted to the Governing Bodies of the two Colleges, and therefore cannot at present be considered anything more than a proposal, which may, or may not, be accepted by the parties who are required to enter into the contract. The fate of a former scheme which had secured the approval of the Committees not only of the two Colleges but of the representatives of the Society of Apothecaries, and was afterwards rejected by the Council of the Royal College of Surgeons, by no means suggests the certainty that this scheme will have a better fate. It is, at the best, an imperfect one, and avowedly so. It will not constitute a Conjoint Board in the full sense of the term for England, for the first clause in it sets forth that—"In view of the legal difficulties which prevent the Society of Apothecaries taking part in the formation of an Examining Board in this division of the United Kingdom," it is resolved, etc. Now, we shall not discuss the question whether the legal difficulties referred to are real or supposed. For our own part we believe that they may all be overcome by help of the section of the Act of 1858, which enables the Medical Licensing Bodies to combine under the direction of the General Medical Council. But leaving this point, we would say that this scheme cannot be a satisfactory one, inasmuch as the Licensing Body which, next to the Royal College of Surgeons, confers the greatest number of licences of any of the Licensing Bodies in the United Kingdom, takes no part in it. Whilst this is the case, the University of Durham, which, we believe, conferred *one* Medical degree last year, is to be allowed the same amount of power in the nomination of examiners as the University of London. Again, although the scheme is confessedly for the examination of the rank and file of the Profession—for general Practitioners, in fact—there is not the slightest provision that any general Practitioner shall have anything to do with the nomination or appointment of examiners, or shall have a seat at the Examining Board. These are our reasons for considering this scheme as unsatisfactory as it is confessedly imperfect. A minor objection is that the machinery proposed—that of a large Committee of Reference for the nomination of examiners—seems to us a very complicated one, and creates a new body, which will be open, as time goes on, to the same charges that have been brought so unsparingly against the examinational bodies it is intended to replace. The following are some of the particulars of the scheme:—"That a Board of Examiners be appointed in this division of the United Kingdom by the co-operation of the Royal College of Physicians of London, the Royal College of Surgeons of England, and of such other of the Medical Authorities in England as can legally take part in its formation, it being understood that liberty being left to such co-operating Medical authorities to confer, as they may think proper, their honorary distinctions and degrees, each of them will abstain from the exercise of its previous independent privilege of giving admission to the Medical Register. That the Board be constituted of examiners, or of examiners and assessors, appointed by the several co-operating Medical Authorities." Whilst, however, the Medical Authorities are to appoint the examiners, they are not to nominate them. This is to be done by a Committee of Reference, which is to be composed of eight representatives of the Universities, or one representative of Medicine and one of Surgery appointed by each of the four English Universities, and by four representatives of Medicine appointed by the Royal College of Physicians of London, and by four representatives of Surgery appointed by the Royal College of Surgeons of England. This Committee of Reference is to determine the number of examiners to be assigned to each subject of examination, and to

nominate the examiners, and to arrange and superintend the examinations. There is also a provision by which University students shall be admitted to the final examination on payment of a moderate fee. On passing, the students will be entitled to receive the licence of the Royal College of Physicians and the diploma of Member of the Royal College of Surgeons of England. It would be premature further to discuss these proposals; but it is believed in some quarters that there are legal difficulties in more directions than one which may impede the carrying out of this confessedly imperfect attempt at a one-portal system.

Dr. Dalrymple has so far succeeded in his attempt to diminish the evils caused by habitual drunkenness, as to have obtained from the Government the promise of a select committee next year. His calm and able statement produced its effect. Of course, the arguments of expense to the ratepayers, infringement of personal liberty, and that the Bill, if it passed, would be a law for the poor and not for the rich, were urged by Dr. Dalrymple's oppenents. But the fact that the Government has promised a select committee proves that his cause is making progress. We protest against Mr. Henley's unwarrantable remark that "if drunkenness had increased, he suggested that the unfortunate habit of Medical men to prescribe stimulants to pick people up might have something to do with it." It is very probable that the machinery of Dr. Dalrymple's Bill may be improved on, but the principle it embodies, of putting a restraint on those who cannot control themselves, is an important and beneficent one.

Lord Shaftesbury has shown that there is good reason for legislation in the matter of children's labour in the brick-fields. We look with suspicion generally on sensational statements, but the evidence in this case is clear and convincing. The Israelites in Egypt did not make bricks under worse circumstances than English children now do. A child of eight or ten years old, is condemned to work thirteen hours a day, and to carry on its head a weight of forty-three pounds a distance of fourteen or fifteen miles daily. This is a common occurrence. We should like to see a careful report on the hygienic condition of these poor creatures.

Dr. Duffin has been appointed Physician, and Mr. Henry Smith Surgeon, to King's College Hospital. These are the well-deserved rewards of long service to the Hospital.

In the case of Craig *v.* Jex Blake, our readers will recollect that Miss Jex Blake has come before the Court of Sessions on a bill of exceptions, founded on the ruling of the judge, Lord Mure. The judges disallowed the exceptions, and granted expenses. In his summing-up, the Lord President is reported to have said:—

"The defender, in addressing the meeting of contributors to the Royal Infirmary, was quite entitled to speak of the memorial of the Medical students, and of the weight to be attached to it, and the opinions and feelings of those who subscribed it; and accordingly she did discuss the memorial of the students generally as judges of that question, and in considering the weight to be attached to their feelings and opinions, she was also perfectly entitled to advert to their conduct, and she did advert to that conduct, and commented upon it in pretty severe terms, with reference particularly to a riot which had taken place at the College of Surgeons, in which it was said that the rioters were the students who were opposed to the proposal of admitting the females to the Infirmary. It appeared to him that all that was quite legitimate, and entirely covered by the privilege of any member of the court of contributors speaking on this subject. But that was not what was complained of. The matter complained of was, that the defender, instead of speaking of the students generally, and the weight to be attached to their views and of their conduct generally, spoke of the pursuer individually, and said of him 'that he was one of the leaders of the riot, and that the foul language he used could only be explained on the supposition she had heard asserted, that he was intoxicated.' Now, the question was, whether these words were covered by privilege, and that again resolved into the question whether in the performance of the duties, or the exercise of the functions, in which the court of contributors were engaged, any one contributor had a right to speak of the pursuer individually. He was very clearly of opinion that the defender, as a member of this meeting of contributors, had no right to speak of the pursuer individually, and had no legitimate occasion to speak of the pursuer. The right to speak of the students collectively or of those students who had signed the memorial to the managers, was perfectly legitimate; but to speak of a student individually—and a student who had not been proved to be one of those who signed the memorial—was entirely beyond any privilege that could be accorded to a party situated in the position in which the defender was. The distinction between one kind of discussion and the other, he need not more particularly point out; but the way to test the right of the defender to speak of an individual was to consider whether it was at all necessary in the performance of the duty, or legitimate in the exercise of the right proper to the defender, to make any allusion to an individual at all. He must say that what was here done by the defender was entirely in excess of the only privilege she enjoyed."

ROYAL COLLEGE OF SURGEONS.

At the meeting of the Council of the College for the election of officers, held on Thursday, the following appointments were made—President, Mr. George Busk, F.R.S., Consulting-Surgeon to the Seamen's Hospital, Greenwich, *vice* Sir William Fergusson, Bart., whose term of office had expired. The Vice-Presidents elected were—Mr. Henry Hancock, Surgeon to the Charing-cross Hospital, and Mr. Thomas Blizard Curling, F.R.S., Consulting-Surgeon to the London Hospital. At this meeting of the Council Mr. Thomas Spencer Wells, of Upper Grosvenor-street, and George Critchett, of Harley-street, the recently elected members of Council, were sworn in, and took their seats. Mr. Timothy Holmes, B.A. Cantab., was elected Professor of Surgery and Pathology; Mr. W. H. Flower, F.R.S., re-elected Professor of Comparative Anatomy and Physiology; Mr. Erasmus Wilson, F.R.S., re-elected Professor of Dermatology; and Dr. Humphry, F.R.S., elected Lecturer on Anatomy and Physiology. Mr. T. M. Stone was re-elected Clerk, having completed a term of forty years in the service of the College.

OUR FOREIGN VISITORS.

The general press announces the Emperor and Empress of Brazil, the Prince and Princess Imperial of Germany, and Prince Oscar of Sweden, among other foreign visitors to us this season, whilst we, on our part, have pleasure in welcoming M. Ricord and M. Demarquay from Paris this week, who have come to bring the Cross of the Legion of Honour to Colonel Lindsay, the head of the National Society for Succour to the Sick and Wounded during the late War. We trust the Medical men, who did the real work of the Society, will not be forgotten. MM. Ricord and Demarquay were present on Wednesday at the Samaritan Hospital, assisting at an ovariotomy performed by Mr. Spencer Wells, when there were also present, as distinguished visitors, Dr. Fordyce Barker, Sayre, and Peters, of New York; and Dr. Sander.

INTERNATIONAL COURTESIES.

It is intended to entertain at a complimentary banquet MM. Ricord and Demarquay, who are now in London on a mission, from the Government and Société de Secours Internationale, of sympathy and acknowledgment of the assistance rendered by English Surgeons and others working under the Red Cross to the sick and wounded soldiers of France in the late war. This occasion will be taken for expressing publicly the esteem and affection in which the Profession in England hold their eminent colleagues across the Channel, and of uniting with this expression of regard and friendship that of our high appreciation of the devotion and zeal with which our Medical brethren in France, worthily represented by MM. Ricord and Demarquay, have fulfilled the high mission of Medicine during the siege of Paris and throughout the war. Sir William

Fergusson, Bart., F.R.S., will preside. The Committee of Management includes Mr. Busk, President of the Royal College of Surgeons; Mr. Paget; Mr. Hilton, President of the Pathological Society; Mr. Curling, President of the Medico-Chirurgical Society; Mr. Hancock; Mr. Gay; Sir Henry Thompson; and Mr. Erichsen. Gentlemen wishing to take part in this act of international courtesy are requested to send their names *at once* to Sir Henry Thompson, 35, Wimpole-street, or to Mr. Ernest Hart, 42, Harley-street, Hon. Secs.

MIDDLESEX HOSPITAL REPORTS.

We, this year, again take occasion to commend the Registrar's reports from the Middlesex Hospital. These are not Hospital report in the same sense as the well-known volumes so long issued from Guy's, but, in a statistical form, contain a vast deal of useful information, the value of which increases year by year. Thus the Medical Registrar, Dr. John Murray, gives us some details of the post-mortem appearances in each of the 120 autopsies made in the course of the year, and in certain diseases more extended information. Another table and abstract on the subject of rheumatism, acute and subacute, cannot fail to be interesting, especially as regards complications and the course of the disease. The alkaline treatment was generally used. The condition of the heart is also noted in each case. Another appendix contains particulars of the cases of chorea treated in the wards. Turning next to the report of the Surgical Registrar, Mr. Henry Morris, we encounter, first, a tabulated list of the injuries for which patients were admitted, with results; and next, that which promises, in time, to be the most useful of all the cancer tables. This is the more valuable, as in Middlesex Hospital there are special wards set apart for these diseases, wherein patients, in accordance with the words of the foundation, are to be kept until "released by death or relieved by art." An erysipelas and pyæmia table follows, next comes hernia, next compound fractures and operations, and finally the result of ninety-one post-mortems. We most heartily commend the style and plan of these reports to other Registrars as being something more than the mere barren catalogues of figures and names of diseases which we too frequently encounter.

THE ALLEGED CURE FOR LEPROSY.

The inquiries of the Leprosy Committee, as well as subsequent events, especially the appointment of Dr. Gavin Milroy to make special inquiry into the efficacy of Dr. Beauperthuy's mode of treatment, have drawn special attention to that horrid disease. A Parliamentary paper which now lies before us contains a correspondence between Dr. Bakewell, Officer of Health for Trinidad, the Government, and the Royal College of Physicians. Dr. Bakewell was the first to report upon Dr. Beauperthuy's mode of treatment, and to draw attention to its success; for this he is deserving of the highest credit, but he is grieved that his mead of praise and reward has hitherto not been greater. We think, however, that Dr. Bakewell should rejoice that a man of such mark and of known equity as Dr. Gavin Milroy should have been selected to inquire into the efficacy of this mode of cure. It is no disparagement to a man that a suggestion he has made as to a mode of treatment should be rigorously tried—if it sustains the trial, then are his claims all the clearer; if it fails, then is it better that the thing should be tried efficiently and skilfully than badly and at hap-hazard. Under no circumstances can Dr. Bakewell's services in the matter be overlooked.

THE PUBLIC HEALTH BILL.

The Bill to abolish the Poor-law Board, and to constitute a Local Government Board in its place, states in its preamble that it is expedient to concentrate in one department the supervision of the laws relating to the public health, the relief of the poor, and local government. The division of power is one of the great obstacles to sanitary improvement. The Report of the Vaccination Committee called special attention to the division of power between the Poor-law Board and the Privy Council, by which the number of vaccination officers was actually reduced just as the need of vaccination was generally felt. Mr. Forster's Vaccination Bill has put vaccination under the Poor-law Board, and it is clear that questions of the public health can be best dealt with under Poor-law administration.

POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

The annual assemblage of this Association will be held at the Freemasons' Tavern, Great Queen-street, Lincoln's-inn-fields, on Wednesday, July 26, at 4.30 p.m. precisely, when, as we understand, several subjects of much importance to the service and the Profession will be brought before the meeting. The question of Poor-law Medical reform is just now attracting very considerable public attention; and as Mr. Corrance has given notice of his intention to bring on a discussion of the subject in the House of Commons on the 21st inst., it is most desirable that, whatever may be the conclusion at which the House shall arrive after hearing his statement, there should be no appearance even of falling off in earnestness on the part of the friends of the cause. We therefore trust there will be a full attendance of members and friends of the Association. In the evening, at half-past six, the annual banquet will take place. Gentlemen desirous of attending the dinner should at once write and announce their intention of so doing to Mr. J. Wickham Barnes, Honorary Secretary, 126, Gower-street, Bedford-square. We also urge on all gentlemen interested in this question to immediately communicate with such M.P.'s as they may happen to know, and urge them to attend and support Mr. Corrance's motion.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

The Library (on account of the alterations in progress connected with the meeting room) will be closed during the months of August and September (closing on Saturday, July 29th, and re-opening on Monday, October 2nd). No books can be taken out of the Library during the above period, but those in the possession of Fellows at the time of the closing, may be retained till the re-opening of the Library. The front-room will remain open as a reading room for periodicals till the 12th of August, as usual.

ST. ANDREWS MEDICAL GRADUATES' ASSOCIATION.

The members of the Association held their summer session on Friday, July 7th, at Maidenhead. At these summer sessions business is wisely subordinated to the pleasures of an outing. And when, as this year, some of the best and truest English scenery was within reach, and a glorious summer's sun was adding to its beauty, it is no wonder that we have to record a success. The day was closed with a dinner at Hindle's Hotel. Dr. Day, of Stafford, President of the Association, was in the chair, and among the honorary members present were—M. Jules Sarazin, of Paris, and Mr. Serjeant Robinson.

TESTIMONIALS TO SURGEONS.

Two hundred poor patients of the Kentish Town Dispensary presented, on Monday last, a testimonial to Messrs. Henry and William Rawlins, of Highgate-road, upon their retirement from the office of Surgeons to the Kentish Town Dispensary, which appointment they had held for many years.

Mr. Richard Ley, on his retirement from practice at South Molton, was on the 6th inst. presented with a substantial token of esteem, in the shape of a handsome tea-service and other plate. The inscription on the plate was as follows:—"Presented to R. Ley, Esq., by the parishioners of Chittlehampton, Warkleigh, Chittlehamholt, and Satterleigh, in grateful acknowledgment of his many years' kind and unwearied attention as their Medical officer."

A WELL-MERITED TESTIMONIAL.

We are glad to state that Professor Halford, of Melbourne, has been presented with a testimonial, consisting of a handsomely bound book and a purse of 120 sovereigns, as a recognition of the merits of his method of treating cases of snake-bite by the injection of ammonia. The presentation was made by Mr. J. Wilberforce Stephen, M.L.A., at Scott's Hotel, in the presence of a considerable number of Medical and lay gentlemen. In making his acknowledgment, Professor Halford gave an interesting explanation of the circumstances which had led to his discovery, and expressed his belief that his mode of treatment was capable of extension to constitutional diseases. An influential committee was then appointed by those present to wait upon the Government, in order to ask that a sum of money might be placed at the disposal of Professor Halford to enable him to make experiments in this direction. It is to be hoped that the Government will grant the prayer of the petitioners.

MISTAKEN ECONOMY.

Mr. Chadwick, M.P., in acknowledging the toast of the House of Commons at the annual dinner of the Statistical Society, on Saturday, presided over by Dr. Farr, referring to the Census, said that for a paltry sum of £12,000 or £14,000 they had been deprived of a great series of invaluable statistics which would have shown how the people of England and Ireland were housed. It was time to express their indignation that an opportunity which occurred only once in ten years should have been lost.

THE CONTAGIOUS DISEASES ACTS.

The Commission on these Acts held its final meeting on Friday last, when the report was signed by the Commissioners generally. Separate dissents were drawn up from certain portions of the report. These dissents were signed by several of the Commissioners. The report was at once placed in the hands of the Government. It will be laid before Parliament, most probably, next week.

CHOLERA AT SECUNDERABAD.

The Indian correspondent of the *Pall-mall Gazette* states that, on the night of May 25, a sudden outbreak of cholera occurred among the 18th Hussars stationed at Secunderabad. In forty-eight hours, fifty-three cases and twenty deaths had occurred. The regiment was immediately moved out into camp, about ten miles from cantonments, and the epidemic disappeared as suddenly as it had commenced. The disease does not appear to have been prevalent in the district, or to have attacked the other troops (European or native) in the station. Secunderabad is one of the largest military stations in the Madras Presidency, and has been the scene of many devastating epidemics. The site has been frequently condemned—but there the barracks are, and there the troops must be.

FROM ABROAD.—MORTALITY RETURNS OF BERLIN FOR 1870—SUDDEN DEATH AFTER OPERATION—DR. E. MÜLLER ON THE PREVENTION OF SMALL-POX EPIDEMICS.

Geh-Med. Rath Müller has recently published the official return of the mortality of Berlin during 1870. The entire number of deaths amounted to 25,594, exceeding that of 1869 by 2919. The population amounting to about 700,000, the proportion of deaths is about 1 to 27. The births during the year, amounting to 31,943 (16,491 boys, and 15,452 girls), exceeded that of the former year by 1842, and was in the proportion of 124 to 100 deaths. The six winter and spring months furnished 11,5[illegible] deaths to the 14,056 deaths of the summer and autumn months; the mortality every year being highest in these months, owing to the prevalence of diarrhœa and cholera among children. Of the 25,294 deaths, 13,921, or 54·39 per cent., were males, and 11,673, or 45·61 per cent., females; and of the 31,943 new-born children, 16,491, or 51·62 per cent., were males, and 15,452, or 48·38 per cent., females. The ages at the time of death, excluding 1472 (829 males and 643 females) returned as born dead, were as follows:—By the first year, 10,074—5548 males and 4526 females; between the first and second year, 2182—1084 males and 1098 females; from the second to the fifth year, 1533—794 males and 739 females; between 5 and 15, 707—323 males and 384 females; between 15 and 20, 451—258 males and 193 females; between 20 and 30, 1931—1152 males and 779 females; between 30 and 40, 1747—998 males and 749 females; between 40 and 60, 2771—1672 males and 1099 females; between 60 and 70, 1344—672 males and 672 females; between 70 and 80, 964—401 males and 563 females; above 80, 354—139 males and 215 females.

In referring to the causes of death, we have first to notice that 1472 infants, or 4·6 per cent., were *still-born*—viz., 829 boys, or 5·2 per cent. of male births, and 643 girls, or 4·1 per cent. of female births. Besides these, 1043 infants died from debility soon after birth—viz., 599 (187 illegitimate) boys and 444 (147 illegitimate) girls. From *variola* there occurred 166 deaths (less than in 1869 by 73), 91 in males, and 75 in females. Of these deaths 85 occurred during the first two years of life, 28 between the second and tenth year, 2 between the tenth and twentieth year, 26 between 20 and 40, 17 between 40 and 60, 6 between 60 and 70, and 1 between 70 and 80. From *scarlatina* there were only 95 (55 males and 40 females) deaths, the number having been 600 in 1868, and 187 in 1869. From *measles*, on the contrary, the deaths increased from 172 in 1869 to 223 (110 males and 113 females) in 1870. *Pertussis*, too, proved fatal to 247 (88 males and 159 females) in 1870, and to only 195 in 1869. Of these deaths, 126 took place during the first year, 79 in the second, and 19 during the third year. The deaths from *gastro-nervous and typhus fevers* rose from 567 in 1869 to 701 (409 males and 292 females) in 1870. From *dysentery, diarrhœa, and cholera* there died 3562 (1956 males and 1606 females), the great bulk of the deaths occurring in children under 2 years of age, the *diarrhœa ablactantieum*, as usual, taking on an epidemic form in summer. *Diphtheria* has been on the decrease from 1867, and in 1870 there were only 555 (255 males and 300 females) deaths, being 318 less than in 1869. The number of these was 82 in the month of December, and only 96 for the three months May, June, and July. From *croup*, too, there died only 191 (117 males, 74 females), as compared with 334 in 1869, the winter months proving especially fatal. Of deaths from *inflammation of the brain*, 1028 (572 males and 456 females) are returned, 761 being children under 3 years of age. From *organic disease of the brain and spine* there are returned 299 (214 males and 85 females) deaths, almost all occurring in persons above 30 years of age. *Apoplexy* produced 772 (429 males and 343 females) deaths. *Inflammation of the air-passages* produced 700 (369 males and 331 females) deaths, all but 51 occurring in children. From *inflammation of the pleura and lungs* there were 1191 (680 males and 511 females) deaths, more than half these occurring in children under 3 years of age. From *phthisis* there died 3403 (1951 males and 1452 females) persons. There were 196 (141 males and 55 females) deaths from *suicide*, the greatest number (91) taking place in February. The forms of death were—in 92 (69 males and 23 females), hanging; in 28 (22 males and 6 females), drowning; in 36 (17 males and 19 females), poisoning; in 19 males, shooting; in 9 (5 males and 4 females), cut-throat; in 8 (6 males and 2 females), charcoal fumes; and in 4 (3 males and 1 female), precipitation. There were also 309 (227 males and 82 females), lives lost during the year from accidents.

At the present time when sudden deaths after chloroform are diligently recorded, we are apt to forget that these were also met with in operations prior to its discovery; and, doubtless, in some of the instances in which it has been administered, and death has ensued, this has really not been due to its influence.

Professor Fischer, of Breslau, relates (*Berliner Woch*, June 12) an interesting case of such sudden death from shock, which occurred in his clinic; but we are not sure that some pessimist may not think that even here chloroform had something to do with the occurrence. The case was one of excision of the left upper jaw of a man 56 years of age, on account of a large sarcomatous tumour. He had become much reduced, and had had repeated attacks of syncope. The heart, on examination, was found normal in its action. According to Professor Fischer's usual practice, the patient was allowed to take only a few inspirations of chloroform, so as to deaden the pain arising from the division of the skin and separation of the soft parts. From the slight sleep produced by this he completely awoke, and complained loudly of the pain. No more chloroform was administered, and the operation was quickly brought to an end without any unfavourable circumstance, and with the loss of very little blood. But no sooner had the jaw been removed than the patient collapsed, his countenance becoming pale, his pulse small, and his respiration irregular. No stridor was audible, nor was there any cyanosis. After a long pause in the respiratory movements a few deep and prolonged inspirations occurred, and the action of the heart became suddenly arrested. Artificial breathing and tracheotomy were speedily had recourse to, with no other effect than the production of some slight respiratory movements. The autopsy exhibited all the principal organs unaffected with disease; the brain was anæmic, and the heart was entirely void of blood; while the spleen, liver, and kidneys were gorged with it. The Professor believes that there can be no doubt that this was a case from "shock," although had the patient been more completely chloroformed the death would certainly have been unjustly attributed to the anæsthetic.

Dr. E. Müller, Director of Vaccine in Berlin, observes in a recent paper, that although the immediate effect of the epidemics of small-pox, which not infrequently occur even since the introduction of vaccination, is to induce the public to more readily resort to this, a more durable consequence is that every epidemic is seized hold of by the opponents of vaccination as a proof of the non-preservative power of vaccine, and as a means of lowering it in public estimation. It is, therefore, time to thoroughly examine the causes why, in spite of the compulsory performance of vaccination, and of the fact that there are few individuals who have passed childhood that have not been vaccinated, yet epidemics of small-pox are continually occurring. Experience long since taught that vaccination only conferred temporary security; but although this led to the practice of revaccination, the execution of this has never been rendered legally compulsory, except in the army, where it has been attended with the most brilliant results. For other persons it has only been recommended, and it must be confessed that this recommendation as regards the mass of persons, has been attended with but slight effect. It must also be confessed that had revaccination to be performed on a very great number of persons, as is necessary for the extinction of a small-pox epidemic, a sufficient supply of the necessary lymph would almost everywhere have been wanting. It has only been since the employment of the mixture of lymph and glycerine that such large quantities of lymph could be provided and stored away, so that the revaccination of the adults of entire localities might be at any time provided for. This greatest hindrance of revaccination having been removed, it may now be hoped that on any epidemic appearing it will be at once brought to an end by a general revaccination. But an indispensable condition for this is that this second vaccination must be just as carefully executed as the first. Too little attention has been paid to the subject, and Medical students are taught nothing about it. Carelessness as to the quality of the lymph employed not infrequently prevails, so that individuals often come to the Berlin establishment in whom revaccination having been previously performed without success by their own Medical men, now succeeded perfectly. In fact, according to Dr. Müller's experience, a first revaccination almost always produces in adults more or less true cow-pock, so that when he hears, as is often the case, that a great number of persons have been revaccinated without any result, he always feels justified in doubting the quality of the lymph employed. Revaccinations of this kind are not only mischievous to the persons concerned, by leading them to conclude that they stand in no need of protection; but they also do great harm on the occurrence of later epidemics by inducing the belief that they have been useless or mischievous. Practitioners who have not the means of obtaining lymph derived from children should entirely abstain from revaccination. Instead of this, too many, fearing to disappoint the wishes of the public, make use of lymph of the origin and character of which they have no assurance. Matters are not much mended by employing animal lymph; for Dr. Müller has convinced himself by his own and other persons' experiments, that this lymph cannot always be transferred to man. Epidemics of small-pox will only cease when revaccination has become general, and when none but reliable lymph is employed.

PARLIAMENTARY.—LUNACY REGULATION BILL—THE ORDER OF THE BATH—THE VACCINATION ACT AMENDMENT BILL—THE PHARMACY BILL—FACTORIES AND WORKSHOPS—ILL-TREATMENT OF CHILDREN IN BRICKFIELDS—REMOVAL OF THE SCHOOL OF MINES—HABITUAL DRUNKARDS BILL.

On Thursday, July 6, in the House of Commons,

Mr. Watkin Williams gave notice that on the second reading he would move that the Lunacy Regulation Bill be read a second time on that day three months.

In reply to Lord R. Grosvenor,

Mr. Goschen said that the principles which directed the selection of officers of the civil branches of the Navy for the honour of the military branch of the Order of the Bath were embodied in the statutes of the Order. There was no intention of giving any distinction connected with the Bath permanently in virtue of an office; no such distinction could be gained except by meritorious service. As to whether it was intended that the head of the Medical branch was always to be recommended as Knight Commander of the Order, and, if so, whether the head of the paymaster branch was to be recommended for a similar distinction, he was not aware that there was a head of the paymaster branch; there was no office corresponding to that of the Medical Director-General; and if there were he should venture to submit that these comparisons were odious.

In reply to Mr. Pell,

Mr. W. E. Forster said he should be very glad if he were allowed to go into Committee on the Vaccination Act Amendment Bill to-night. In the chief part of the Bill improvements had been introduced, with regard to which there was no difference of opinion, and he should like to proceed with that part. He had no intention of bringing on that portion of the measure with respect to which amendments were to be proposed by the hon. member for Norfolk.

Mr. W. E. Forster having moved the second reading of the Pharmacy Bill, after some discussion, the second reading was postponed until Monday week.

On Monday, in the House of Lords,

The Factories and Workshops Act Amendment Bill, which is to transfer the power to carry out the Factories and Workshops Act from the local authorities to the Factory Inspectors, was read a second time.

On Tuesday Lord Shaftesbury carried his motion for an address to the Throne on the subject of the sufferings of children and young persons employed in brickfields.

A conversation upon the proposed removal of the Royal School of Mines to South Kensington was raised by the motion of Lord Salisbury for the production of a letter by Sir R. Murchison against the transfer recommended by the Science Commission. Lord Ripon said that it would be better the document and the comments of the Commissioners should be published together, and promised that no action should be taken without the assent of Parliament.

On Wednesday Mr. Dalrymple's Habitual Drunkards Bill came on for discussion. It provides for the enforced seclusion for a period of twelve months of habitual drunkards, either by their own voluntary action, by the intervention of families, or by a magistrate's committal in cases where a man has been

convicted of drunkenness or some offence arising out of it three times within six months. In support of his measure Mr. Dalrymple quoted carefully collected statistics as to convictions for drunkenness, and he met the objection on the score of interference with individual freedom by urging that the public good must prevail, and by dwelling on the evils produced by confirmed drunkenness.

After some discussion Mr. Dalrymple consented to withdraw the bill on Mr. Bruce's promise that a Select Committee should be appointed next year.

ROYAL COLLEGE OF SURGEONS.

The annual dinner of the Fellows of the College took place, as usual, after the elections into the Council on Thursday last, at the Albion Tavern, under the efficient chairmanship of Mr. H. D. Carden, of Worcester, supported by the Presidents of the Royal Colleges of Physicians and Surgeons (Dr. Burrows and Sir William Fergusson, Bart.), the Director-General of the Medical Department of the Royal Navy (Sir A. Armstrong), the President of the Medical Council (Dr. Paget), Mr. Dalrymple, M.P., Dr. Sayre, of New York, etc.

After the usual loyal and patriotic toasts, Mr. Dalrymple, M.P., proposed the Medical Council, to which Dr. Paget responded in a long and eloquent speech.

"The Medical Corporations, in Alliance with those of America," drew forth a most eloquent speech from Dr. Orsborn, of Bitterne, Southampton, which was received with well-deserved cheers. He said: I have the honour of proposing the next toast—an honour I should most fully appreciate, were it not for the consideration that I am altogether unqualified for this important duty, which ought to command greater erudition, a more familiar acquaintance with the institutions that are the subject of the toast, and a higher degree of eloquence than I can possibly attain. The toast is the Medical Corporations of this Kingdom; and when we remember the great and important influence these institutions have exercised, and must of necessity continue to exercise, over the destinies of our Profession, it is impossible that such a toast can be received with indifference in an assembly composed of Medical men. The Royal College of Physicians has fostered some of the ablest men who have adorned the ranks of our Profession, and contributed to its scientific advancement men whose names will go down to posterity surrounded with a halo of brightness which the lapse of ages can never dim—which the revolution of centuries can never impair. And to us in the present day it is a matter of congratulation that the mantle of these distinguished individuals has fallen upon one who, as President of the College, is fully competent to sustain the honour which has involved upon him with dignity, and with credit and advantage to the institution over which he so ably presides. Of the College of Surgeons I am bound to speak in terms of admiration and respect. We cannot mention that noble institution without calling to mind the memory of one whose name will ever rank amongst the greatest of our race—one who was a giant in his day—for in relation to Anatomy and Surgery Hunter was as great as is Shakspere in relation to our dramatic literature. He can never be surpassed, probably will never be equalled; and his vast labours have raised to his memory a monument noble as it is enduring. Other luminaries of greater or lesser magnitude have shone forth on its horizon, but amongst these there are probably few who will reflect greater honour on this noble institution than will he who is at present the occupant of its Presidential chair, whose practice, skill, and grand Surgical achievements have won for him a reputation that has extended throughout the civilised world. And now, gentlemen, let me say one word on behalf of the Society of Apothecaries, a body which has deserved well of our Profession, of which I would fain speak in terms of considerate respect. I cannot forget that probably one of the proudest moments of my life was that when I escaped from its portals carrying with me its licence to practise. It may not have done all that we could have wished, but it has done much towards promoting a higher standard of Medical education, and in this respect has contributed towards the advancement of the science of our Profession, and its practice as an art. (Great cheering.) Gentlemen, I have the opportunity and the privilege of associating with this toast "the representative institutions of America." and I do so with the greater pleasure, from the circumstance that we are this day honoured by the presence of Dr. Sayre, a distinguished member of our Profession, from New York—a gentleman who has won renown by his practical knowledge and bold achievements in Surgery. We all feel a great interest in everything relating to our Transatlantic brethren. We know them to be characterised by a strong tendency "to go a-head"; we are cognizant of the valuable improvements they have made in Surgical practice, and of their researches in scientific and practical Medicine; and we are willing to acknowledge that we are indebted to them for many important additions they have made to the literature of our Profession. Gentlemen, I am persuaded you will join with me in the expression of a hope that those difficulties which have for some time existed and led to an estrangement between the two peoples may speedily be removed, and that henceforth there may be between them no other rivalry than such as may arise from a desire to see which can contribute the most largely towards the promotion of the interests and welfare of our common race. Let us hope, gentlemen, that those clouds which have been so long looming in the distance may now be dispersed, and that there may burst forth over both nations an unclouded sunshine of prosperity and peace. (Great cheering.)

Dr. Burrows, Sir W. Fergusson, and Dr. Sayre returned thanks.

Sir William Fergusson, who was received with great applause, returned thanks for the College of Surgeons. He expressed gratification with the manner in which the toast had been so pleasingly brought before the meeting by Dr. Orsborn. The President of the College of Physicians had responded in such comprehensive terms that he might rest satisfied with declaring his assent to all that had been said by his friend, Dr. Burrows. He thought, however, that it was incumbent on him to say a little more. He was glad to perceive that this toast of the College of Surgeons had been so well received; yet after all, they were only drinking their own health as it were, for they in a manner represented their own College. In doing so they had, however, evinced their respect for the sister institutions, and in particular for the College of Physicians. He was specially glad to corroborate the statements of Dr. Burrows about the harmony which prevailed between the two Colleges in regard to the development of a Conjoint Board for the examination of those desirous of entering the Medical Profession. For the College of Surgeons, he could say, with the utmost sincerity, that the best feelings prevailed towards the Physicians. There were respect, affection—he might almost say love—towards the sister institutions, and so much did the latter feeling prevail, that a bond of matrimony seemed not far distant, which would give a strength and unity to the Profession as a whole such as had often been talked of, but had never yet been realised. The Council of the College of Surgeons had cordially gone into the consideration of a scheme for a Conjoint Board of Examination, and he was strongly of opinion that on such a Board these sister institutions, which represented so large a portion of the Profession in England, should have a proportionate position. A Board of Examiners distinct from these institutions had been proposed, but he was firmly impressed with the opinion that, whilst other kindred institutions were duly represented, the main pillars of the proposed one-portal should be formed by and from the two Colleges which had so long and so fully represented the Profession in this country. It was well that, on such an occasion as this, the fellows should toast their own institution. They must bear in mind that it was the head-quarters of some fifteen thousand of the Practitioners in Britain, and whatever defects there might be about it, there was much that they might all be proud of. He would only refer to the great museum which was their own, and, in particular, as evidence of the activity which prevailed within the walls of the College, to those numerous additions to the collection which had been made since last year, and which had been specially displayed that day for their inspection. Some of these were rare, others unique, and such, therefore, as had never been seen previously.(a)

"The Provincial Schools," by Mr. Henry Hancock, Vice-President of the Royal College of Surgeons, was well received. He said he rose to propose the health of a body of gentlemen who did good service, and who did so, to within a few years ago, under difficulties. He alluded to the lecturers at the provincial schools of Medicine. A very few years ago these gentlemen were placed in a most anomalous position; they were told that they were competent to teach the theoretical portion of Medical study, or they might teach the practical—either one

(a) The interesting preparations of the young hippotamus skeleton, stomach, etc., which l a lattracted particular attention, were thus alluded to.

or the other—but that they were incompetent to teach both, and the student was obliged to come up to London to complete his studies. At the present time that anomaly no longer existed; they now had a fair field and no favour, and he sincerely trusted that the provincial schools would not only vie with each other, but with the schools of this great metropolis, in their endeavours to maintain and promote the welfare, the dignity, and progress of our noble Profession. (Cheers.)

Mr. Vose Solomon, of Birmingham, replied in a short and effective speech.

"The Metropolitan Schools," by Professor Humphry, F.R.S., of Cambridge, like the toasts of Dr. Orsborn, and Mr. Paget, was one of the great speeches of the evening, and was received with enthusiastic cheers. He said he had no doubt of the hearty acceptance of the toast he had been requested to propose, which was that, if not of the authors of our Professional existence, yet certainly of our nursing mothers, from whom we had drawn milk rich with the very cream of knowledge, and which were among the most important institutions in the country, for what would those corporate bodies of which mention had just been made be—what would the Profession be without the metropolitan Medical schools? And by that is meant the metropolitan Medical teachers, who have a great work to perform, and are under a great responsibility. They had received a noble heritage—the heritage of a banner inscribed with the names of Abernethy and Cooper, of Lawrence and Travers, of Bright and Latham, and others of equal renown, and they bear that banner bravely forward, and will hand it on illuminated with additional names no less bright than those of their predecessors. Professor Humphry doubted not that those who heard him had left their respective schools with the same feelings of filial regard and honest respect for their teachers, which he had carried away with him from St. Bartholomew's thirty years ago, and many rejoiced with him to see some of their teachers here present still active and young, and fresh in work. The feelings which he carried away with him from London he had retained during the interval; and now that he was, by the suffrages of the Fellows, brought again into contact with those teachers on the Council of the College of Surgeons, and on the Committees of the Colleges of Physicians and Surgeons—who had held so many meetings, and done so much to promote the matrimonial alliance that had been alluded to between the two Colleges—he could honestly say that increasing knowledge of these gentlemen in another capacity had been productive of increased respect. He found them actuated by the simple, sincere desire to promote the welfare of the Profession; and their efforts to maintain the position, and, if possible, add to the influence and dignity of their respective corporate bodies, are consequent on the conviction which the Professor and, he believed, those present fully shared, that the prosperity of those bodies is intimately associated with the prosperity and status of the Profession. He spoke of the good work which is being done in the metropolitan schools, and concluded by associating with the toast the name of Mr. Holmes Coote, so well known to the Fellows by the practical and scientific work he had done, and to the students by the ability with which he instructed them, and the courtesy which he showed them. (Cheers.)

Mr. Holmes Coote replied that the great honour thus conferred upon him was unexpected. He felt much gratified to think that the London schools of Medicine still retained the confidence of the Profession; and he thought that much of that confidence was acquired by the greater freedom of Professional intercourse, and the valuable Medical and Surgical contributions which could now be readily obtained from all known quarters. The schools of England, Scotland, and Ireland—the patient reports, so admirably got up and printed, from our brethren in America—these are advantages which those of the past age did not enjoy. I thank Professor Humphry (said Mr. Coote) for his kind words of me. What shall I say of him? Entering this great Profession supported by his unwearied industry and great talent, he has gained for himself, both in Surgery and science, a name which will be imperishable.

"The Chairman," by Mr. James Paget, F.R.S., was received with many cheers, both as a tribute to Mr. Carden and as an expression of the hearty feeling on the part of the Fellows at the happy recovery of the learned speaker. He said, as an old and esteemed friend, a distinguished Surgeon, and one of the best representatives of the provincial division of the Profession, Mr. Carden's great knowledge, skill, and common sense had gained for him the complete confidence of both the Profession and the public in a wide field of practice, and in the same field his personal character had won respect, not only for himself but for all his brethren; and for this all were indebted to him; for the estimation in which the Profession was held depended more on the provincial than on the metropolitan members. They lived nearer to their neighbours, their social influence was more felt; the good they did and the good tone of their lives were more closely observed, and misconduct was more evident and more likely to be regarded as discreditable to the whole Profession. Mr. Carden's health, therefore, as that of a good Surgeon and a good example, ought to be drank very heartily. (Loud and prolonged cheers.)

Mr. Carden acknowledged, in an eloquent and grateful speech, his obligations to Mr. Paget personally, and the Fellows generally, for so much kindness, and before sitting down proposed the health of Mr. Thomas Carr Jackson, the honorary secretary, to whose valuable assistance and experience himself and co-Fellows were so much indebted for these agreeable reunions.

Mr. Jackson expressed his obligations to the Chairman and Fellows for so kindly supporting him; and his statement that the greatest, as he was the most popular, Surgeon of the day, Sir W. Fergusson, had consented to take the chair at the next annual festival, was received with applause.

The great interest taken in the Council elections by provincial Fellows was proved by the large number who attended to record their votes—viz., Messrs. Adams, Maidstone; Allard, Tewkesbury; Ambler, Hemel-Hempstead; Anderson, Derby; Bell, Brown, Hutchins, Rochester; Carden, Worcester; Cattlin, Brighton; Crosse, Norwich; Curling, Ramsgate; Dalrymple, M.P., Norwich; Fox, Broughton, Hants; Green, Bristol; Havers, Berkampstead; Holman, Hurstpierpoint; Hulme, Guildford; Jones, Brackley, Northampton; Lowe, Burton-on-Trent; Lawes, Gosport; Lush, Weymouth; May, Reading; Monckton, Rugeley; Morris, Spalding; Nankwell, Chatham; Nicholls, Chelmsford; Orsborn, Bitterne; Orton, Narborough; Pern and Wiblin, Southampton; Prankerd, Langport; Ryott, Newbury; Scriven, Cirencester; Smith, Stevenage; Smith, St. Mary's Cray; Southam, Manchester; Spurrell, Belvedere; Symonds, Oxford; Thomas and Sail, Birmingham; Thomson, Ross; Ward, Huntingdon; Winchester, Maidenhead.

SMALL-POX RETURNS OF THE ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.

New Cases of Small-pox occurring in the Public Practice of the undermentioned Districts.

Districts.	No. of Cases week ending						
	June 3.	June 10.	June 17.	June 24.	July 1.	July 8.	July 8. Sent to Hospital.
West—							
Chelsea	16	20	15	?	?	?	—
St. George, Hanover-square	17	21	10	10	8	6	3
St. James, Westminster	8	1	5	3	2	3	2
North—							
St. Pancras	113	77	68	69	42	26	?
Islington	36	52	35	26	23	22	?
Hackney	25	20	19	22	10	?	—
Central—							
City of London	17	10	12	10	9	6	?
Holborn	8	6	9	4	3	3	3
St. Luke's	13	13	16	16	10	5	5
East—							
Whitechapel	5	18	9	12	10	—	—
Bow and Bromley	?	?	?	16	12	?	—
South—							
St. Mary, Newington	35	36	24	46	14	18	22
St. Olave, Southwark	5	2	1	1	1	1	1
Lambeth	22	23	?	?	16	14	19
Clapham	14	11	5	7	5	4	2
Wandsworth	6	2	—	4	5	—	—
Streatham	?	3	?	4	?	3	2
Lewisham	6	?	?	3	?	?	—
Camberwell	?	41	32	?	21	?	—
Plumstead	4	6	—	2	—	?	—

REVIEWS.

Essay on Growths in the Larynx. By Morell Mackenzie, M.D. Lond., M.R.C.P., etc. Pp. 263. J. & A. Churchill.

This book is undoubtedly the most complete and original essay on new formations in the larynx which has appeared in this country. In the preface the author states that his essay "is based on an experience of nearly 150 cases of laryngeal growth. It includes detailed reports of 112 cases, of which 26 have been previously published, and 86 are now brought forward for the first time." This comparatively large number of cases of an infrequent class of diseases has been submitted to careful analysis and comparison. A large number of the histories are illustrated by beautifully executed coloured engravings of the morbid growths, and others by excellent woodcuts. All cases of carcinoma and of "false excrescences," the result of syphilitic ulceration and subsequent cicatrisation, and of gummata, are excluded. The work is therefore a treatise on those new formations in the larynx which, at least in many instances, are, by the aid of the laryngoscope, susceptible of cure or of amelioration. And, in fact, of the 112 cases detailed 100 underwent treatment. Of these seventy-seven are reported as cured, and eighteen as improved. There were two deaths in the series. Besides his own cases, Dr. Mackenzie appends a tabular account of all published cases treated by other Practitioners since the invention of the laryngoscope. Having said thus much as to the general characters of the work, we will glance at a few of the topics on which Dr. Mackenzie treats.

The first section of the book contains an historical sketch of the progress of our knowledge of laryngeal growths, and of the rise and progress of their Surgical treatment. The first noticed operation for the removal of a laryngeal growth by the mouth was one by Regnoli in 1836. The patient was an old man of 70. On opening the mouth widely the tumour, about the size of a hen's egg, could be seen at the back of the throat, and it was found to be attached by a peduncle to the arytenoid cartilages. Tracheotomy was performed, and the growth removed through the mouth; but the operation had to be repeated, and ultimately the old man sank. In this section Dr. Mackenzie gives his experience of the frequency of these growths. He writes—

"When we compare the cases observed with the laryngoscope with the specimens found in pathological museums, we are struck with the enormous antagonism, as to the comparative frequency of laryngeal growths. In the museums of the Royal College of Surgeons and the various London Hospitals, there exist altogether only thirty-four specimens of true laryngeal growth, whilst in my own practice I have seen, with the laryngoscope, in the course of ten years, more than four times as many cases. Dr. Krishaber remarks that laryngeal growths 'are to be met with in two or three per cent. of cases of disease of the larynx, exclusively local and chronic.' In referring to this passage, Mr. Durham observes that his own experience would lead him to 'the conclusion that they are much less frequent even than this.' I am unable to say how frequent laryngeal growths are in comparison with other chronic local affections of the larynx, but I find, on an approximative analysis, that in relation to all other throat affections, including those of the pharynx, these cases have occurred in my private practice in the proportion of 1½ per cent., whilst they have been present in only ½ per cent. of the cases under my care at the Hospital for Diseases of the Throat, and of my throat cases at the London Hospital. The larger percentage occurring in private practice is not due to a greater liability of the upper and middle classes to this affection, but to the accidental circumstance that the most common symptom—loss of voice—is of more consequence to the educated and wealthy than to those engaged in manual labour."—P. 6.

The second section treats of the causes of laryngeal tumours. The question of the influence of dyscrasia is discussed at some length. Dr. Mackenzie's experience leads him to the conclusion that, putting aside specific manifestations, "Neither syphilis nor phthisis, nor any other constitutional condition, appears to favour the growth of these neoplasms. He thinks that the inspiration of irritating vapours, and occupations which necessitate the using of the voice, especially out of doors, exert an influence favourable to their production, and he gives a table which proves that they are most frequently met with between the ages of 20 and 60. Out of 100 cases 28 were those of persons between 40 and 50. The sections on symptoms and diagnosis will well repay study. A careful description is given of the laryngoscopic appearances observed in the various kinds of growths, which he ranges under the heads of "papillomata, benign epithelial growths, fibromata, fibro-cellular growths, myxomata, lipomata, fasciculated sarcomata, cystic growths, adenomata, and angeiomata!" The same classification is used in the section on pathology, which is illustrated by some well-executed microscopic drawings. In the section on treatment, which resolves itself into internal or laryngoscopic treatment and removal by extra laryngeal methods, Dr. Mackenzie exhibits a perfect practical acquaintance with all the details of the subject. His comparisons of the merits of the operations which he discusses, and the rules which he lays down for the guidance of the Practitioner, are by no means the least valuable portion of a book which we can cordially recommend to our readers. We may add that the volume before us forms the second of a series of essays on throat diseases.

NEW BOOKS, WITH SHORT CRITIQUES.

Temperature Variations in the Diseases of Children. By William Squire, L.R.C.P. Lond, etc. London: J. and A. Churchill. Pamphlet.

*** We must, first of all, congratulate Mr. Squire on the result of his labours; secondly, we must bear testimony to the care manifested in the brochure containing them. Were every man in the position of Mr. Squire to devote equal attention to the scientific material to be obtained from his practice, the gain to Medicine would be great. In a former treatise, Mr. Squire gave us the results of his inquiries into the normal temperatures of children; here we have a similar account of those manifested in their morbid states. This latter will be of extreme value to Practitioners who, though in theory or practice acquainted with the disease temperatures of adults, may yet know little of those of infants. To these we heartily commend the little work.

GENERAL CORRESPONDENCE.

MIDWIFERY AND THE MEDICAL COUNCIL.

Letter from Dr. J. Braxton Hicks.

[To the Editor of the Medical Times and Gazette.]

Sir,—Will you pardon my intruding on your space, but I ask for information? Are we to understand that the Medical Council, by their recent decision, consider that midwifery proper requires no more instruction than botany, and that the diseases of women and children require none at all?

I am, &c., J. Braxton Hicks.

9, St. Thomas's-street, S.E.

GOOD VACCINE LYMPH.

Letter from Mr. John Greene.

[To the Editor of the Medical Times and Gazette.]

Sir,—In your number for July 1, appeared an article entitled "Syphilis and Vaccination," containing some remarks on heifer vaccination. I have practised this method for upwards of two years, and have inoculated more than fifty animals with transmitted spontaneous cow-pox, and now desire to publicly express an opinion thereon. I think that it would be rather impracticable, and certainly unnecessary, for Government to introduce vaccination from the heifer to the arm on a large scale. The affording to the public of an opportunity of choice between the rival methods should be left entirely in private hands for the system to find its own level.

I will confine myself here to stating that in heifer vaccination we have a perfectly reliable means, entirely free, when properly applied, from that uncertainty which has been attributed to it by an eminent Government authority, and that, in some secondary vaccinations, where lymph of long human descent has repeatedly failed, it will produce a well-marked pock.

The point that I would urge most strongly upon Government, is the employment of animal vaccination on a limited scale to multiply virus from recent primary stocks, to which the Profession shall have access in due order and under proper restrictions. By a system of periodical renewal, the employment of weak vaccinoid lymph through the kingdom would be avoided. The evil produced by the use of altered lymph is (in conse-

quence of its wide prevalence) of immeasurably greater gravity than an isolated or dubious case of syphilitic inoculation, since it leads to a weakened protection, the spread of small-pox amongst the vaccinated, and to anti-vaccination agitation of a powerful kind.

I have recently published a pamphlet entitled "Good Vaccine Lymph," where, amongst other arguments in favour of this particular reform in our vaccination administration, I have cited the commands of Jenner himself, given in a forgotten paper, "Instructions for Vaccine Inoculation," where he says that on the appearance of the slightest deviation in the course of the vaccine vesicle—inferring in the event of its being regularly reproduced by a certain lymph stock—we should at once have recourse to "the most active kind of virus," and that "common prudence" indicates this procedure.

I am very strongly impressed with the importance of these forgotten remarks of Jenner, taken together with other circumstances within the observation of any Medical man, and I do heartily trust that Government will consider this proposition, not only with the light of science, but with the light of "common prudence," as Jenner mildly puts it.

The evil of the employment of lymph of long descent is one that increases with the lapse of time. Small-pox-marked persons are again appearing pretty often in our streets. Another generation or two at the present retrograde rate of effective vaccination, and the art will be in danger of being lost, particularly if a political revolution, and consequent social disorganisation, should happen to coincide with a bad and unscientific application of the great prophylactic.

I am, &c., JOHN GREEN, L.R.C.P., etc.

Birmingham, July.

OBITUARY.

THOMAS HAWKES TANNER, M.D. St. And., F.L.S., M.R.C.P.,

WAS born in London. His father was for many years on the Army Medical Board. He was educated at a private school at Totteridge, in Hertfordshire, and studied Medicine at King's College. He was an industrious student, and gave promise of being a good Practitioner. Having graduated at St. Andrews, and become a member of the Royal College of Physicians of London, he commenced practice in Charlotte-street, Bedford-square. His habits of industry soon bore good fruit, his practice rapidly extending and his reputation increasing. Ill-health, however, for a time interfered with his progress. On his marriage, about ten years since, he removed to Henrietta-street, Cavendish-square, where his practice increased to such an extent that he was occupied for too many hours a day. Yet he found time at night to compile several works, which have had more or less success. There can be no doubt that this over-work took serious effect upon him, as was evidenced in his jaded look and his attenuated frame. Until three months ago, he pursued his regular practice, though occasionally sorely wearied and overcome. Symptoms of brain affection supervened upon general *malaise*, and he expired at Brighton on the 7th inst., in the 47th year of his age.

Dr. Tanner contributed some papers to the periodicals, and occasionally reviewed books, and wrote short leaders for one of our contemporaries. He published several works, the principal of which were his Practice of Medicine, which passed through several editions—his Index of Diseases; the Diseases of Infancy and Childhood; and the Signs and Diseases of Pregnancy. As a Physician he was painstaking and suggestive. His diagnostic powers were not of the highest order, but were above the average. He was, if anything, too ambitious of practice. Whilst he held himself out chiefly as a Physician for the diseases of women and children, he wished to take high rank as a general Physician—

"To shine a Tully and a Wharton too."

Take him, however, altogether, he was a man of whom we may well be proud, and whose death in the prime of life will be generally lamented. If he was not a great, he was a well-informed and sagacious practitioner, and a compiler of useful and practical works. In person he was somewhat below the middle height, and of a spare and delicate frame. He looked older than he really was, from being bald early in life. He had a good forehead, handsomely chiselled nose, and a mouth of firmness and decision. His eyes were dark, intelligent, and had, for a Physician, the admirable characteristic of earnestness. His manner and address were pleasing.

SIR JAMES FREDERICK PALMER, M.R.C.S., ETC.,

DIED at his seat, Burwood-hill, near Melbourne, Australia, on April 23 last. He was the son of the Rev. John Palmer, of Torrington, Devon, prebendary of Lincoln, and nephew of the first Marchioness of Thomond, and great nephew of Sir Joshua Reynolds. He was born in 1806, was speaker of the first Legislative Council of Victoria, 1851-6, and president of the second Legislative Council of Victoria, 1856-70, and in 1857 received the honour of knighthood. In 1831 he married Isabella, daughter of John Gunning, Esq., Inspector-General of Hospitals.

Sir James Palmer was for many years in practice in London, and resided in Golden-square. He was educated at St. George's Hospital, of which he had been House-Surgeon. On two vacancies for Assistant-Surgeon, he entered into a contest for the office. He was defeated on both occasions, chiefly by the influence of Sir B. Brodie. He was so much disappointed and annoyed at the last defeat, that he determined to emigrate, and did so. He arrived at Melbourne before the gold fever had set in, and succeeded in amassing a considerable fortune. He was a man of good ability as a Surgeon, and of considerable literary attainments. He edited the life and works of Hunter, which were published in four volumes shortly before he left London.

In person he was about the middle height, and inclined to corpulency. He had an open expression of countenance, and of a florid complexion. He had the appearance of a well-to-do intelligent farmer.

JACOB VALE ASBURY, M.R.C.S., L.S.A.,

DIED June 21. 1871, at his residence, Enfield, Middlesex, in the 80th year of his age. He was apprenticed to Mr. Dewint, of Stone, Staffordshire, and his early years were passed in the mining districts of that county, where he became popular, and laid the foundation of his skill in Surgery from his practice among the fearful accidents then so common in such localities. His diplomas bear date 1816. He was a student of the Middlesex Hospital, and for seven years the pupil and demonstrator of Joshua Brooks, with whom he afterwards continued on terms of intimate friendship. About 1818 he visited Enfield as Medical friend and companion to a gentleman of position in the neighbourhood. In 1820 he married Dorothy, third daughter of the late Charles Jacomb, Esq., of Guilford-street, Russell-square, when he commenced practice on his own account. From this period his success in life was one of steady progression. He was shortly after appointed Medical officer to the parish. Having removed to Enfield, "in 1826," says a correspondent, "he performed one of the greatest operations of Surgery then recorded on a poor child, Jane Distoll, aged 9 years, and received from the more influential inhabitants of Enfield a memorial presentation of a silver salver of considerable value, on the back of which is engraved the state of distortion of the child's leg, with its restoration after the operation. On the front the inscription bears record of his skill and humanity in the cure of an extraordinary and almost hopeless case of distortion," whereby the use of her right leg was restored.

In 1833, he published a Treatise on Epidemic Cholera, in the treatment of which he was eminently successful. The late Charles Lamb, his friend and patient, bore witness to his successful treatment of cholera in a witty acrostic on his name. Jacob Vale Asbury was on terms of intimate friendship with John Abernethy, Tom Hood, Edward Turner Bennett, and others of note and scientific celebrity. His success as a country practitioner was almost beyond precedent, his reputation extending far beyond the limits of his own neighbourhood. Enfield was in former years the resort of the aristocracy, of whom there were none but sought him as a valued friend and their Medical adviser.

Towards the close of the year 1852, in consequence of the severity of railway accidents, he turned his whole attention towards the construction of machinery to be applied to railway-carriages to lessen the force of collision in the event of trains or carriages being brought into undue contact with each other. This machinery was intended to be applied to the bed of each carriage, and also to be introduced into a safety luggage-van or break, which he named "Asbury's Diâsosticon." His patent for these inventions bears date February 4, 1853. In earlier years he invented two Surgical instruments—one for the puncture of the tympanum, the other for the extraction of fishhooks.

THOMAS MOSTYN, DEPUTY INSPECTOR-GENERAL OF HOSPITALS,

DIED at Alpha House, Fairview, Dublin, on the 6th inst. The

deceased, who was Honorary Surgeon to her Majesty, was in receipt of a reward for meritorious services. He was for about twenty years Surgeon of the 27th Inniskillen Regiment. He served in the Peninsular from January, 1811, until the end of the war, including the siege of Badajoz, April, 1812; was at the battles of Salamanca, Vittoria, and the Pyrenees; the storming of San Sebastian with the volunteer party; at the battles of Orthes and Toulouse. He served in the American war, including the action at Plattsburg; was present on June 18 at Waterloo. He received the war medal, with eight clasps, for Badajoz, Salamanca, Vittoria, Pyrenees, San Sebastian, Nivelle, Nive, and Toulouse. He served with the 27th Regiment in the Kaffir wars of 1834-35 and 1846-47, for which he also received a medal.

DR. W. HUNTER, SURGEON-MAJOR (LATE OF THE COLDSTREAM GUARDS),

Died at Largs, Ayrshire, on the 28th ult. Dr. Hunter became Assistant-Surgeon February 10, 1814; Surgeon, September 4, 1836; Surgeon-Major, March 16, 1838; and retired upon half-pay September 2, 1845.

MEDICAL NEWS.

Apothecaries' Hall.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, July 6, 1871:—

Bowes, John Ireland, Elham, Canterbury.
Pope, Harry Campbell, Tring, Herts.
Willcocks, Isaac, West Looe, Cornwall.
Williams, Ralph Worthington, Hurst, near Ashton-under-Lyne.

As an Assistant in Compounding and Dispensing Medicines:

Nutt, William Anthony, Barnstaple, Devon.

The following gentlemen also on the same day passed their first Professional examination:—

Mahomed, F. H. A. A., Guy's Hospital.
Webb, William Edward, King's College.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Campbell, W. Macfie, M.B. and C.M. Edin.—Junior House-Surgeon to the Liverpool Northern Hospital.

Davies, William James, Registered under Pharmacy Act, 1868.—Dispenser at the Hackney Union.

Duffin, Alfred B., M.D. Edin., M.R.C.P. Lond., F.R.C.S. Eng., L.S.A.—Physician to King's College Hospital.

Lansdown, F. Poole, M.R.C.S.—Re-elected Surgeon to the Bristol General Hospital.

Smith, Henry, F.R.C.S. Eng.—Surgeon to King's College Hospital.

Symes, Edmond West, M.B. Edin., M.R.C.S. Eng. (late Assistant Resident Medical Officer).—Senior Resident Medical Officer to the Leeds Public Dispensary, *vice* J. M. Fothergill, M.D. Edin., resigned.

MILITARY APPOINTMENTS.

13th Hussars.—Surgeon John Noble Shipton, from the 2nd, to be Surgeon, *vice* Surgeon-Major John Sheldon Furlong, M.D., appointed to the Staff.

Royal Artillery.—Staff Assistant-Surgeon William Stevenson, M.B., to be Assistant-Surgeon, *vice* Arnold Royle, appointed to the Staff.

53rd Foot.—Staff Assistant-Surgeon Warner Atkinson to be Assistant-Surgeon, *vice* William Snowdon Hedley, M.D., appointed to the Staff.

63rd Foot.—Staff-Surgeon John Harrison Robotham to be Surgeon, *vice* George Peacocke, M.D., deceased.

Medical Department.—Surgeon-Major John Sheldon Furlong, M.D., from 13th Hussars, to be Staff Surgeon-Major, *vice* Staff Surgeon Julius Wiles, appointed to the 2nd Foot. Assistant-Surgeon William Snowdon Hedley, M.D., from 53rd Foot, to be Assistant-Surgeon, *vice* Warner Atkinson appointed to the 53rd Foot. Assistant-Surgeon Arnold Royle, from the Royal Artillery, to be Staff Assistant-Surgeon, *vice* William Flack Stevenson, M.B., appointed to the Royal Artillery.

BIRTHS.

Bellamy.—On July 6, at 59, Margaret-street, Cavendish-square, the wife of Edward Bellamy, F.R.C.S., prematurely, of a son, stillborn.

Cotter.—On May 24, at James Town Barracks, St. Helena, the wife of Staff Assistant-Surgeon L. K. Cotter, M.B., M.C., of a daughter.

King.—On July 10, the wife of William Talbot King, Surgeon, 74, Victoria-park-road, of a daughter.

Long.—On July 3, at the residence of her father, Colne Lodge, Cromer, the wife of Mark Long, M.D., of a daughter.

MacEwan.—On July 10, at Weymouth, the wife of D. MacEwan, M.D., R.N., of a son.

MARRIAGES.

Grant—Maitland.—On April 11, at St. Mary's, Poona, Bombay Presidency, John Hay Grant, Esq., Civil Service, to Amy Frances, eldest daughter of Dr. Maitland, Deputy Inspector-General of Hospitals, Bombay Army.

Hall—Ely.—On July 6, at St. Mary's, Stoke Newington, Charles Frederick Hall, B.A. Oxon., Bengal Civil Service, to Dora, sixth daughter of the late George E. Ely, M.D., Rochester.

Haslewood—Ashton—On July 5, at Castleton Church, Derbyshire, A. O. Haslewood, M.R.C.S., son of the late W. Haslewood, M.D., of Darlington, to Mary How, younger daughter of the late Robert How Ashton, Esq., of Castleton.

Mansea—Bailey.—On July 5, at St. John's Church, Blackheath, Frederick Manser, M.R.C.S., of Tunbridge-wells, to Jane Maria, eldest daughter of Thomas Peter Bailey, Esq., of Blackheath.

Noaton—Adams—On July 5, at St. Mary's Church, Bungay, Suffolk, Howard John, second son of J. H. Norton, M.D., Nant-glas, near Llanelly, South Wales, to Marion Jane Burman, eldest daughter of Edward Burman Adams, M.R.C.S., of Bungay, Suffolk.

Sherring—Billings.—At St. Matthew's, Oakley-square, N.W., W. M. Sherring, of Lincoln's-inn-fields, Solicitor, to Emily Sophia, only daughter of the late William Billings, Surgeon, R.N.

Skae—Cumberland.—On June 15, at St. Stephen's-in-the-Fields, Toronto, Canada, Edward Macpherson Skae, Esq., C.E., fourth son of David Skae, M.D., F.R.C.S. Edin., to Julia Elizabeth, eldest daughter of F. W. Cumberland, Esq., M.P.P., of Pendarves, Toronto.

Stokoe—Weichsrodt.—On July 11, after banns, at St. Saviour's, South Hampstead, Richard Stokoe, Esq., H.M.'s Indian Army, youngest son of Richard Stokoe, M.D., Peckham-rye, to Fanny, only daughter of the late John Weichsrodt, Esq.

Teevan—Robinson.—On July 11, at Christ Church, Kensington, William Frederic Teevan, F.R.C.S., eldest son of the late William Teevan, Esq., of Bryanston-square, to Georgina, elder daughter of the late Francis Robinson, Esq., of Windsor.

DEATHS.

Duaie, William, K.H., late Assistant Inspector, Ordnance Medical Department, Royal Artillery, at Toronto, Canada, on June 14, in his 92nd year.

Falconar, Mary Randoll Jane, widow of Lieutenant-General Chesborough Grant Falconar, K.H., and second daughter of the late William Kennedy Inverness, Fellow of the Royal College of Physicians, Edinburgh, at Falconberg Lodge, Greenhill-park, Edinburgh, on July 4.

Hamilton, Eleanor Anns, the beloved wife of Robt. Hamilton, M.D., at 1, Hawick-place, Victoria-street, S.W., on July 7.

Hester, James, M.D., second son of James T. Hester, of Hastings, late of Oxford, at Wangaratta, Australia, after a few days' illness, on May 1.

Hamilton, W. B., M.D., F.R.C.S.E., at Garnock-street, Dalry, Ayrshire, on July 10, aged 52.

Lansdown, Joseph Goodale, thirty years Surgeon to the Bristol General Hospital, at Bristol, on July 6, aged 67.

May, Willoughby, L.R.C.P., and M.R.C.S., at his residence, Teignmouth, South Devon, on July 5, aged 31.

Millard, Eliza Frances, wife of J. Millard, Esq., and daughter of the late William Good, M.D., of Connaught-terrace, Hyde-park, on July 5.

Mostyn, Thomas, Deputy Inspector-General, Army Medical Department, late 27th Inniskillen Regiment, at Alpha House, Fairview, Dublin, on July 6.

Nathan, Eliza, wife of Henry Nathan, Surgeon, Weymouth, at Burton Bradstock, Dorset, on July 5, aged 65.

Peacocke, Dr. George, Surgeon to H.M.'s 63rd Regiment, at Hazareebagh, of diphtheria, on June 5.

Tanner, Thomas Hawkes, M.D., of 9, Henrietta-street, Cavendish-square, at Brighton, on July 7, aged 46.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

Ampthill Union.—Medical Officer wanted for the Maulden District; Candidates must have the qualifications prescribed by the General Orders of the Poor-law Board. Applications and testimonials to Mr. John Wright, Clerk to the Guardians, Ampthill, on or before July 18.

Blackburn and East Lancashire Infirmary.—House-Surgeon; must be duly qualified. Applications and testimonials to the Secretary (marked "House-Surgeon") on or before July 18. The duties commence on July 28.

Bradford Infirmary and Dispensary.—Physician; must be a Graduate in Medicine of the Universities of the United Kingdom, or a Fellow or Member of one of the Colleges of Physicians. Applications and testimonials to Mr. Charles Woodcock, Secretary.

Brixton Dispensary.—Resident Dispenser. Applications and testimonials to Mr. Hollamby, 29, Branksome-road, West Brixton, S.W., on or before July 18.

Bury, Lancashire.—Resident Medical Officer wanted for the Dispensary. Candidates must be duly qualified. Applications and testimonials to the Rev. E. J. Smith, St. John's Vicarage, Bury, Lancashire, on or before July 25.

County Asylum, Lancaster.—Assistant Medical Officer; must be duly qualified. Applications and testimonials to the Superintendent.

Evelina Hospital.—House-Surgeon; must have at least one qualification. Applications and testimonials to the House-Surgeon at the Hospital, on or before July 19.

Farringdon Union.—Medical Officer for the Buckland District. Candidates must possess the qualifications prescribed by the General Orders of the Poor-law Board. The gentleman appointed may reside either within or out of the district. Applications and testimonials to Mr. J. Haines, Clerk, on or before July 25.

General Hospital and Dispensary for Sick Children, Bridge-street, Manchester.—Resident Medical Officer; must have a Medical qualification and be registered. Applications and testimonials to the Secretary, on or before July 22.

Hospital for Sick Children, 49, Great Ormond-street.—Assistant-Physician; must be a Fellow or Member of the Royal College of Physicians of London. Applications and testimonials to be sent in on or before Wednesday, July 19.

Huddersfield Infirmary.—House-Surgeon; must have both Medical and Surgical qualifications, and be registered. Applications and testimonials to Mr. John Marsden, on or before August 14.

Huddersfield Infirmary.—Physician; must be a Graduate in Medicine of one of the Universities of the United Kingdom, or a Fellow or Member of one of the Colleges of Physicians, and be duly registered. Applications and testimonials to John Marsden, Esq., Hon. Sec., on or before July 28.

Infirmary for Consumption and Diseases of the Chest, 26, Margaret-street, Cavendish-square, W.—Visiting Physician; must be a Member of the Royal College of Physicians, London. Applications and testimonials to Mr. F. Baily, Secretary.

Infirmary for Epilepsy and Paralysis, Charles-street, Portman-square, W.—Physician; must be a Member or Fellow of the Royal College of Physicians, London. Applications and testimonials to Mr. E. Watherston, Hon. Sec., on or before July 31.

Leeds Public Dispensary.—Junior Resident Medical Officer. Must be unmarried, and possess at least one legal qualification. Applications and testimonials to be sent to Mr. John Horsfall, 31, Albion-street, Leeds, on or before July 15.

Middlesex Hospital Medical College.—Lecturer on Physiology. Applications to the Dean on or before July 22.

Royal Orthopædic Hospital, 315, Oxford-street.—Resident House-Surgeon and Apothecary; must be M.R.C.S. and L.A.C., or possess the certificate of Medical and Surgical qualifications of some British University, &c. Applications and testimonials to the Secretary.

St. George's Hospital Medical School.—Teacher of Physiological Chemistry. Further information may be obtained of Dr. Wadham, Dean of the School.

St. Thomas's Hospital.—Resident Assistant-Physician. Candidates must be Members of the Royal College of Physicians, or Medical Graduates of a University of the United Kingdom, and not less than 25 years of age. Applications to the Treasurer, at the Office, 13, St. Thomas's-street, S.E., on or before July 18.

Seamen's Hospital, Greenwich.—House-Physician and House-Surgeon. Candidates for these appointments must have, at least, one qualification. Applications and testimonials to the House-Governor and Secretary.

Suffolk General Hospital, Bury St. Edmunds.—Physician. Applications and testimonials to the Committee, on or before July 17.

Warwick County Lunatic Asylum.—Assistant Medical Officer; must have both Medical and Surgical qualifications. Applications and testimonials to Dr. Parsey, at the Asylum.

West London Hospital, W.—Junior Physician; must be a Fellow or Member of the Royal College of Physicians of London, and not practising pharmacy. Applications and testimonials to S. Alexander, Esq., Secretary, on or before July 22.

Wirral Union.—Medical Officer for the Upton District. Candidates must have the qualifications prescribed by the General Orders of the Poor-law Board, and will be required to attend a Board meeting on the day of election, bringing their testimonials and diplomas. Residence within the district required. Election on July 12. Further particulars may be obtained of Mr. P. Gregory, 33, Hamilton-square, Birkenhead.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1861.

RESIGNATIONS.

Faringdon Union.—Mr. H. Maskelyne has resigned the Buckland District; area, 27,290; population, 5201; salary, £126 per annum.

Guisborough Union.—Mr. Alexander Cameron has resigned the Danby District; area, 25,240; population, 2946; salary, £35 per annum.

Mansfield Union.—Mr. J. J. Bingham has resigned the Sixth District; area, 9195; population, 1906; salary, £15 per annum.

Skirlaugh Union.—Mr. Robt. V. Ash has resigned the Workhouse; salary, £25 per annum; and the Skirlaugh District; area, 18,310; population, 2336; salary, £35 per annum.

Whitechapel Union.—Mr. Thomas Loane has resigned the Fifth District; area, 108; population, 10,970; salary, £90. No fees.

APPOINTMENTS.

Auckland Union.—Rich. T. Manson, M.R.C.S. Eng., L.R.C.P. Edin., to the Howden District. Daniel M. Keehine, L.F.P. and S. Glas., to the Escomb District.

Bridgwater Union.—John M. Ling, M.R.C.S., L.S.A., to the Huntspill District.

Epsom Union.—John Wilton, M.R.C.S., L.R.C.P., L.S.A., to the Sutton District.

Lutterworth Union.—Thos. S. Johnson, M.R.C.S. Eng., L.R.C.P. Edin., to the Third District.

Arts Examination.—We understand that a meeting of the Court of Examiners of the Royal College of Surgeons, to receive the report from the College of Preceptors on the recent examination in Arts, etc., for the diplomas of Fellowship and Membership of the College, will be held on Friday, immediately after which the result will be communicated to the 300 or 400 anxious gentlemen.

We regret to notice the death of Dr. Keith Johnstone, LL.D., the well-known geographer.

The health of Paris, it is gratifying to state, is good; only 872 deaths occurred last week, against 1106 the week before.

Cholera, in the 18th Hussars at Secunderabad, is dying out, and the disease has ceased at Bussorah.

Derby is about to receive free baths as a gift from Mr. Bass, M.P.

The steamers *Northam* and *Celt* arrived at Cape Town early last month with small-pox on board.

Cholera, which had for a brief interval disappeared from Bushire, has again broken out in that city.

Small-pox is raging at Shahpore, and is on the increase in Dera Ismael Khan-Umballa.

Mr. Jardine Murray was elected President, and Mr. George Latham was elected a Vice-President, of the Sussex and Brighton Medico-Chirurgical Society at the annual meeting on the 2nd inst.

Mr. Young, of Kelly, the president of Anderson's University, says the *Glasgow Star*, has informed the trustees that a gentleman has offered £2000 towards founding a chair of Physical Science in that University.

Chancellorship of the University of London.—Sir Edward Ryan is filling, *pro tem.*, by election of the Senate, the place of the late Mr. Grote, as Vice-Chancellor of the London University.

Mr. Darwin.—At the anniversary meeting of the Vienna Academy of Sciences, Mr. Darwin was elected a Honorary Fellow.

Indian Medical Department.—A correspondence has recently passed between the Military and Financial Departments at Bombay, regarding the compulsory retirement of the members of the Subordinate Medical Department after the age of 55 years.

The Conjoint Committees.—A meeting of the Committees of the Royal Colleges of Physicians and Surgeons on the Conjoint Board will take place this (Friday) evening, at half-past eight, at the College of Physicians. Mr. Cock not having been re-elected a member of the Council of the College of Surgeons, ceases to be a member of the Committee.

Yellow Fever at Buenos Ayres.—The health of Buenos Ayres has greatly improved, and although the yellow fever had not completely died out, the number of deaths was so small, that it was hoped the end of it was at hand. Corrientes had suffered terribly from yellow fever.

National Orthopædic Hospital Bazaar.—The bazaar held on behalf of this Hospital seems to have been very successful. Among the distinguished visitors were the Princess Louise and the Marquis of Lorne. The daughter of Mr. Carr Jackson, Surgeon to the Hospital, had the honour of presenting a bouquet to her Highness, which was graciously received.

The Late Dr. Hatton, F.R.C.S.—At a meeting on Thursday last of the Royal National Lifeboat Institution, a contribution of £700 was received from Mrs. Jane Hatton to defray the cost of the Dungeness new lifeboat station in memory of her late husband Dr. Hatton, F.R.C.S., of Belvedere, Kent, who died on January 26, 1871.

The small-pox in Manchester is spreading at a steady and most alarming rate, as is shown from the following figures:—In the first week in May there were 10 cases of small-pox in the city—18 in the second week, 27 in the third, and 31 in the fourth week. In the first week of June the new cases were 38, in the second week 32, in the third week 48, and in the fourth 102; and last week the new cases were 113.

Small-pox in Factories.—A vaccination circular has just been issued by the Inspectors of Factories, stating that people had been found working in factories on whom pustules caused by small-pox still remained. The circular urges that remedial measures be taken by the employers, and the parents of these, in those places.

Health of Scotland.—During the month of June, 1871, in the eight principal towns of Scotland the deaths of 2567 persons were registered, of whom 1299 were males and 1268 females. Allowing for increase of population, this is 207 above the average number for June during the last ten years. Of the 2567 deaths, 1194, or 46 per cent., were of children under 5 years of age. In Aberdeen and in Perth, 35 per cent. of the persons who died were under 5 years of age; in Paisley and in Leith, 36; in Dundee, 37; in Edinburgh and in Greenock, 45; and in Glasgow, 51 per cent.

English Aid to France.—Counts de Flavigny and Serrurier, representatives of the International Society for the Relief of the Wounded, and Drs. Ricord and Demarquay, managers of the ambulances of the press, are coming to London for the purpose of expressing to the British nation the thanks, not only of the two great societies they represent but also of the French Government, for the generous relief afforded to their countrymen during those eventful periods. The above-named gentlemen are the bearers of high marks of distinction in the Legion of Honour to the chief promoters of the French relief movement in England, who will, at the same time, receive from them specimens of the best vehicles, constructed under their directions, for the removal of wounded from the field of battle. These are on their way to England.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Edinburgh.—We regret to state that Dr. Harthill's advertisements, which appear constantly in an Edinburgh newspaper, are open to adverse comment. It is unusual for a Physician to advertise "remarkable cases," etc.

Out-patients Hospital Reform.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Will you allow me to report in your columns that at a meeting of the Committee, held last week, my balance-sheet was audited, and the accounts examined, from which it appeared that the total receipts amounted to £49 18s. 4d., and the total expenditure to £49 4s. 10d., leaving a balance in hand of 13s. 6d., against which there are some petty expenses due to the secretaries of about 30s. I will not trouble your readers with any further appeal. I am, &c., Alfred Meadows, M.D., Hon. Treasurer.

George-street, Hanover-square.

COMMUNICATIONS have been received from—

Dr. Russell; Dr. Barewell; Mr. F. Crace Calvert; Junior Assistant-Surgeon; Mr. Cotter; Mr. C. J. Thompson; Dr. J. Greene; Dr. Woodward; Dr. Proctor; Nerve; Dr. J. Braxton Hicks; Mr. Wheatley; Dr. Sedgwick; Dr. Alfred Meadows; Dr. Thos. Gibson; Mr. J. Chatto; Dr. J. Thompson Dickson; Dr. J. Russell; Professor Laycock; Dr. Edwards Crisp; Mr. Vizer; Miss Lansdown; Mr. Marshall.

BOOKS RECEIVED—

Needham on Brain Exhaustion—St. Moritz as a Health Resort, by Dr R. W. Hewlett—Good Vaccine Lymph, by Dr. John Greene—The Baths of Bormio, by Dr. R. W. Hewlett—Report of Poor-law Medical Officers' Association—Dr. Whitmore's Monthly Report—Smoking: when Injurious, when Innocuous, when Beneficial, by Dr. John C. Murray.

PERIODICALS AND NEWSPAPERS RECEIVED—

Gazette des Hôpitaux—Gazette Hebdomadaire—Food Journal—L'Union Médicale—The Exeter and Plymouth Gazette—The Delhi Gazette—New York Medical Gazette—Pharmaceutical Journal—Nature—Mechanics' Magazine—Glasgow Herald—Medical Press and Circular—Western Daily Mercury.

APPOINTMENTS FOR THE WEEK.

July 15. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.

17. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.

18. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.

19. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m., Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.

20. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; West London, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.

21. *Friday.*

Operations at Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.

VITAL STATISTICS OF LONDON.

Week ending Saturday, July 8, 1871.

BIRTHS.

Births of Boys, 979; Girls, 950; Total, 1929.
Average of 10 corresponding weeks, 1861-70, 1925·2.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	618	582	1200
Average of the ten years 1861-70	674·2	616·5	1290·7
Average corrected to increased population	...	...	1420
Deaths of people above 90	...	...	...

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561189	11	2	5	...	6	1	1	4	7
North ...	751668	70	3	2	3	9	3	1	...	7
Central ...	333887	3	...	2	...	4	...	...	...	4
East	638928	18	3	3	...	3	1	1	...	15
South	966132	62	4	12	1	8	3	1	1	6
Total	3251804	164	12	24	4	30	8	4	5	39

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·720 in.
Mean temperature	60·5°
Highest point of thermometer	76·5°
Lowest point of thermometer	48·8°
Mean dew-point temperature	52·6°
General direction of wind	S.S.W.
Whole amount of rain in the week	0·87 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, July 8, 1871, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1871.*	Persons to an Acre. (1871.)	Births Registered during the week ending July 1.	Deaths Registered during the week ending July 1.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3263872	41·8	1929	1200	76·5	48·8	60·5	15·83	0·17	2·21
Portsmouth ...	113450	11·9	64	34	73·3	50 0	58·9	14·94	0·16	1·75
Norwich	80533	10·8	45	19	75·5	48·5	58·6	14·78	0·50	1·27
Bristol	183298	39·1	125	59	...	...	...	...	...	...
Wolverhampton ...	68476	20·2	31	17	69·8	48·5	56·3	13·50	1·11	2·82
Birmingham ...	344980	44·1	245	126	70·0	48·8	56·6	13·66	1·16	2·95
Leicester	95882	30·0	58	35	77·0	47·7	58·4	14·66	1·58	4·01
Nottingham ...	86929	43·6	47	26	72·3	47·9	57·8	14·33	2·13	5·41
Liverpool	494649	96·8	327	248	72·3	50·7	57·9	14·39	1·32	3·35
Manchester ...	356099	79·4	223	178	71·0	48·0	58·3	14·61	1·05	2·67
Salford	125422	34·3	72	61	68·7	47·2	56·5	13·61	0·98	2·49
Bradford	146987	22·3	99	69	70·3	51·2	68·3	20·17	0·64	1·63
Leeds	260657	12·1	74	97	69·0	49·0	56·9	13·83	1·59	4·04
Sheffield	241507	10·6	158	89	68·0	49·0	56·3	13·50	1·76	4·47
Hull	122266	34·3	73	34	71·0	49·0	56·9	13·83	1·50	4·04
Sunderland ...	98797	29·9	69	82	...	...	...	...	...	...
Newcastle-on-Tyne	128677	24·1	99	74	...	...	...	...	...	...
Edinburgh	201728	45·6	132	82	72·7	50·0	58·9	14·94	0·90	2·29
Glasgow	479227	94·7	349	311	68·0	48·0	58·2	14·55	0·84	2·13
Dublin (City, etc.)	322321	33·1	136	126	73·9	45·0	58·6	14·78	1·61	4·09
Total of 20 Towns in United Kingd'm	7215757	33·8	4355	2967	77·0	45·0	58·5	14·72	1·20	3·05

At the Royal Observatory, Greenwich, the mean reading of the barometer in the week was 29·72 in. The highest was 30·06 in. on Thursday morning, and the lowest was 29·39 in. on Monday morning.

* The figures in this column are the unrevised numbers enumerated in April last, raised to the middle of the year by adding 1-40th of the rate of increase which prevailed between 1861 and 1871; the numbers for Edinburgh and Glasgow have been furnished by the Registrar-General of Scotland, while those for Dublin are still the estimated numbers recently used.

ORIGINAL LECTURES.

ON THE INFLUENCE OF THE NERVOUS SYSTEM ON DISEASES OF THE ORGANS AND TISSUES.

By THOMAS LAYCOCK, M.D., etc.

Professor of the Practice of Medicine, of Clinical Medicine, and of Medical Psychology and Mental Diseases, in the University of Edinburgh.

(*These lectures have been revised, and somewhat extended, by Dr. Laycock.*)

Lecture IV.

THE TROPHIC CLINICAL ANATOMY OF THE CEREBELLUM AND MEDULLA OBLONGATA.

(*Concluded from page 2.*)

Trophic neuroses of the medulla oblongata may differ equally in the concomitant sensory or motor neuroses. In many cases of diabetes the skin is more or less anæsthetic, and the cutaneous transpiration abolished. Loss of sexual appetite is common; the patient becomes irritable, morose, melancholic, and, not unfrequently, there is deafness and dimness of vision—all symptoms that point to paresis of the occipito-spinal centres.

Another fact as to these trophic appetites is that in both health and disease they are directed to special things. We shall discuss these in the course of Medical Psychology in summer, as the trophic instincts for air or oxygen, light, heat, and food and drink of various kinds, and for condiments and stimulants. I shall only remark now on their relations to the chemical actions of the tissues. We have seen how necessary to all life, whether vegetal or animal, certain mineral constituents are. Chemists dwell emphatically on flesh-forming or nitrogenous, and heat-producing or carbonaceous foods, but say little or nothing of the foods which contain these mineral constituents—namely, such as chlorine, phosphorus, sulphur, and lime—which are not less essential than nitrogen and carbon. These are chiefly contained in the foods termed herbs and condiments, as onions, garlic, asafœtida, peppers, mustard, watercress, etc. These are all more or less necessary to the due production of vital energy and vis nervosa. To another class belong salt, sugar, vinegar, bitters, and alcoholic stimulants; the appetite for these is variously developed under varying conditions of the nerve-centres. Sugar is often desired and unduly taken in cases of oxaluria with biliary derangement. Appetites are sometimes manifested by convalescents which are not so *bizarre* as is usually thought, for they really indicate the need for constituents of living tissue which subserve to vital or nervous energy; for example, a convalescent's desire for bitter beer may indicate the need for a tonic; if a patient longs for ham or salt herring, he probably needs chlorides. Lower animals have medicinal appetites as well as man. There are also diathetic appetites, as the love of the gouty for animal food. In the summer we shall consider the morbid or insane manifestations of these appetites — the neuroses known as bulimia, pica, polydipsia, dipsomania. Pica in a sick dog is one of the most certain signs of rabies, as it is a striking characteristic of dirt- and fæces-eating maniacs. In like manner the appetites for heat and light are morbidly modified; certain epileptics and maniacs automatically strip themselves of all clothing, just as dying persons automatically throw off the bed-clothes.

It is obvious, from a wider consideration of these facts, that we must look beyond the spinal cord and the medulla oblongata for the centres of those instinctive acts which depend upon a due co-ordination of numerous muscles—often, indeed, of the motor mechanism of the whole body. The sensory centres from whence the regulative vis nervosa arises, and in which the changes which coincide with the feelings of hunger, thirst, warmth, and corporeal desires generally take place, are probably in the medulla oblongata, but the whole series of sensory and motor phenomena known as the instinctive include a wider range—a series of corporeal-animal centres. The instincts are variously named, according as the animal is carnivorous or herbivorous; and if carnivorous, according as it takes its prey, and as it prefers blood or flesh, or flesh putrid or fresh, and the like. They also differ in character when the maternal instincts for nutrition of the young animal is active. I place the sensory seat of all these so-called animal instincts and appetites of mammals, including man, in the hippocampus lobe.

Let us now consider the clinical anatomy of heat-production.

The heat of fever and inflammation has been explained variously, but chiefly by chemical and dynamical theories, such as those of friction and oxidisation. Lately it has been attributed to a paresis of the bloodvessels, due to lesion of the sympathetic or vaso-motor system, whereby there is undue supply to, and accumulation of blood in, the tissues. Tranbe, however, looking to the great fact that the temperature of the body is uniform in health within narrow limits, attributed fever-heat to a palsy of a moderating centre, which he placed in the medulla oblongata, and in special relation with the vagus system; to changes in the same centre he referred the anorexia, hurried breathing, and quickened action of the heart. This view was a good deal controverted, especially by Virchow, who had a hypothesis of a centre for the regulation of the eremacansis of the tissues, so that paresis of this centre by leading to excessive combustion caused the increased heat. In considering the problem we have to include various coincident phenomena which are wholly lost sight of by the experimental physiologists, such as thirst, suppression of cutaneous transpiration, coldness, rigors. Experimental researches point to the medulla oblongata as a thermal centre, for section of it at its junction with the pons varolii has been followed by intense febrile symptoms; from which we may conclude, at least, that in the thermal, as in the chemical processes, the line of regulative activity is along the medulla oblongata downwards. In considering the problem we must not forget, however, that the production of coolness is as much a function of the regulative centre as of warmth. Now that may be exercised in two ways: either there may be an inhibition of heat-production in the tissues by stopping or diverting the supply of combustible stuff; or, the heat being produced, or communicated by hot bodies, is carried off by evaporation, to which end fluid is poured out over evaporating or cooling surfaces. In man the skin and the lungs are such surfaces, and hence a regulation of the sweat glands and of the pulmonary halitus must, from this point of view, be a function of the thermal centres. As a clinical fact, sweats have very important relations to the nerve-centres, and follow those of heat. So that heat, and sweats, and coldness (in fever, *rigors*), and hot dry skin, and cold sweats cannot be separated in observation.

That the nerve-centre of rigors and of the sense of coldness is in this thermal region is probable from numerous clinical observations of localised fever and ague, as of one arm or one-half the body; their anatomical seat is elucidated by one of Cruveilhier's interesting cases(a)—that of a woman, aged 68, who had continual coldness and rigors (grand frisson qui ne la quittait jamais). Her skin felt like that of a cold-blooded animal. After using a hot bath, she became generally paretic, ending in left hemiplegia; she had also defective sight, and a sharp pain behind the right ear; but she more especially suffered from very painful cramps, commencing at the feet and extending to the knees and thighs, and then to the arm. They were chiefly on the right side, but usually ended with affecting the left limbs. She had also attacks like epilepsy. On examination, the atlas was found dislocated; the posterior median strands of the medulla oblongata were changed into a grey substance; the cord below was compressed by the atlas, more especially on the right side; and behind and to the left the cerebellum showed a superficial erosion with a brownish-yellow discoloration of its substance. In this case it is to be noted that, with the sensation of cold, there was actual coldness of the skin, and probably of the muscles, causing tissue-cramp. Hence the conclusion that both heat sweats and rigors may be due to general or local debility of trophic nerves and nerve-centres. Goose-skin is often limited to particular regions, and therefore due to changes in particular nerves or nerve-centres. The sweats of phthisis and of debility in general are neurotic. They are sometimes hemiplegic, or limited to the thorax, the face, the scalp, the lower extremities. They are thus often of value in diagnosis, and, being neurotic, are best treated by nervine tonics. Often, however, sweats are beneficial, because they keep the surface cool when there is excessive thermogeny.

All these thermal conditions may be reflex and diastaltic. Numerous facts prove decussation of the thermal nerves. If one hand be made cold by being placed in iced cold water, the other becomes cold also; and this is not due to a general lowering of temperatnre, because that of the axillæ and tongue remains unchanged. Cooling the hands or feet is an effectual method of causing a paretic urinary bladder to contract. Hemisection of the medulla oblongata or of the spinal cord on a level with the first cervical vertebra is followed by

(a) "Anatomie Pathol. Liv.," xxv.

increased heat on the same side of the head, hand, foot, wrist, and ankle, and on the opposite side of the neck, trunk, thigh, arm, leg, and upper part of the forearm.(b) Hence the conclusion that the thermal nerves of the abdominal parietes, pelvic region, thigh, and upper part of the leg decussate as soon as they enter, or when they leave, the spinal cord. On hemisection in the mid-cervical region, Schiff found the hand and lower portion of the arm to be hotter on the same side as the section, but the shoulder and the rest of the limb to be hotter on the opposite side. Also the foot and ankle were found to be hotter on the same side, but the trunk, thigh, and leg hotter on the opposite side. These results of experiments appear to me very worthy notice, because they explain various anomalies which I have observed clinically. A diagonal or circumscribed area of cutaneous inflammation may sometimes be seen in skin diseases similar to these spheres of heat-production. The law is also specially manifested in cases of diagonal dropsies and in wasting palsies, in which the same crossed morbid action is seen. In all these cases the centric disorder may be unilateral, although the results are shown in the upper portion of the limb, say, on one side, and in the lower portion in the other, for lesion in one half of the cord may affect the direct fibrils on that side and the decussating fibrils entering it from the opposite side. It is probable that the decussation of the sensory nerves of the hands and feet are high up within the cranium, and not in the cord, as is the case with those of the upper arms and thighs, for, being tactile executive instruments, they must have both their special motor and sensory centres within the encephalon. It is for this reason that numbness as well as motor palsy, beginning in both hands or in both feet, is a sign of intracranial centric disease. In like manner, symmetrical gout of the hands and symmetrical affections of the skin like purpura and psoriasis palmaris are associated with trophic nervous debility of centric origin. The hot palms in fever and in various neuroses beleng also to this class of symptoms. It is for this reason that the first return of moisture on the palms in cases of fever is so welcome. It indicates returning regulative action of the nerve-centres.

Knowing these general principles of trophic clinical anatomy, we can be more practical in our researches and more readily apply experimental facts. Claude Bernard found hemisection of the spinal cord in the dorsal region to be followed by increased heat of the lower extremity of the same side and diminished heat of that on the opposite side; so that a diseased kidney acting injuriously on the spinal cord on its own side (which it will do) might lower the temperature in the opposite side by acting on the decussating motor or executive fibrils going to that side, and at the same time cause an illusive sensation of heat there by acting on the sensory afferent fibrils. Sweats and rigors may also be thus induced. Irritation of the urethra will excite dangerous, because general, rigors; but then, like the cervix uteri, it is a unified organ in virtue of double decussation of its sensory fibrils, so that irritation cannot be unilateral; nevertheless, creeping, local chills, and goose-skin do occur from localised centric or diastaltic action. Such are these felt about the loins at the beginning of a fever or a "cold."

There are numerous morbid conditions which are plainly due to this diastaltic action of diseased viscera. Thus, in unilateral pneumonia, and in tubercular phthisis chiefly affecting one lung, there is often a hot flush over the cheek of the same side. Sometimes one ear is hotter than the other in head-affections, just as there is venous congestion more manifest on one temple than on the other. But in thus connecting heat, redness, and congestion together, I must caution you against the conclusion so commonly current, that they stand in the relation of cause and effect. In the first or cold stage of fevers and agues, there is no redness or congestion of the skin with the increased heat; on the contrary, it is pale, and the patient shakes as if it were cold. So in a case of paraplegia we had under observation—when the patient was feverish the temperature in the paralysed groins was 104·5°, being 1·5° higher than in the unparalysed axilla; yet there was no redness until ice was applied to the loins. Such facts suffice to show that current theories of heat, redness, and congestion are too limited.

I have said nothing of the influence of emotions on the trophic centres. The facts are so well known and so familiar that I need not specifically point out to you how constantly the nutrition of the body, and of various parts locally, are thereby influenced; how readily the quantity and composition of the bile, gastric juice, milk, urine, saliva, are changed under the influence of angry and depressing emotions; and how frequently the circulation within the vessels, as well as the action of the heart, is not only modified, but even arrested.

And this latter point raises the question—What and where are the centres (if any) within the cerebro-spinal axis which regulate the condition of the blood in the capillaries, both as regards its composition and the movements of the corpuscles? I shall not now discuss the question of inflammatory as distinct from dropsical effusions; I will only call your attention to the clinical anatomy of purpura and capillary hæmorrhages. There is an epidemic fever (prevalent lately in North Germany, and known in Ireland as the "black" fever, and also "the black typhus" and "black death") in which the chief characteristic is a more or less general purpura, coming on sometimes very rapidly. Anatomical research has shown very clearly that it is a cerebro-spinal meningitis involving the *posterior* surface of the cord, and of the occipito-spinal region, the anterior spinal region not being involved. This is a significant fact, to which I shall revert when discussing the pathology of the cerebro-spinal axis from another point of view; at present I need only call your attention to the coincidence between the purpura and the condition of the cerebro-spinal centres, and to the conclusion that the intense cases are only glaring instances of a general law in cases of typhus, only that certain vaso-motor and hæmatic centres are involved. Let us look for corroborative or illustrative instances. There is a peculiar condition observed in the case of certain cases of mania, in which a bloody tumour forms, termed *hæmatoma*. This has been attributed to the violence of attendants, because the subjects of it are commonly furious maniacs, but as careful inquiry as I have been able to make has satisfied me that the theory is unfounded. Further, a like careful inquiry has led me to the conclusion that the vascularity and state of nutrition and development of the ear very commonly coincide with similar conditions of the encephalic tissue.(c) My friend, Mr. Jonathan Hutchinson, communicated, in corroboration, an interesting case of hæmatoma of both ears in a woman not insane, but with a physiognomy indicative of proneness to cerebral disturbance, with mental peculiarities, sleeplessness, and a history of insanity in the family.(d) Such facts tend to prove a local centre of nutrition for the ears, and to render it easy to understand how it happened that Dr. Brown-Séquard observed hæmorrhages into the skin of the external ear to follow upon certain injuries to the corpora restiformia of guinea-pigs.(e) States of consciousness are associated with like conditions of the blood and capillaries. I have seen one example of local purpura from fear, and have met with so many recorded cases of general purpura following on a like emotion, that I give this form a place in my nosology as "emotional purpura."(f) Chronic grief will affect the blood, so as to induce chlorosis; but, in truth, in every act of thought, and more especially in acts of apprehensive and emotional attention directed to any part of the body, there is a change in the encephalic centres, such that the circulation within them is changed, and therewith the circulation and nutrition of the blood and of organs and tissues to which the attention is directed are modified too. It is thus we understand the pathology of hysterical hæmorrhages, the localised bleedings in parts of the body corresponding to the localities of Christ's wounds observed in "ecstatica," and both the curative and the morbific effects of the imagination considered as acts of morbid attention. As to the pathology of all these various phenomena, it is necessary to study more closely the vaso-motor clinical anatomy and pathology of the encephalon, which we will do on some future occasion.

(b) Schiff, *Comptes-Rendus*, tome 55, p. 462, etc.

(c) See my lectures on "Physiognomical Diagnosis," *Medical Times and Gazette*, March, 1862, p. 259.
(d) *Ibid.*, December 6, 1862, p. 603.
(e) *Archives Générales*, April, 1869, p. 90.
(f) *Vide* "Principles and Methods," 2nd ed., p. 291.

Assistance Publique de Paris.—The appointment by the French Government of M. Blondel, formerly Inspector-General, to the office of Directeur de l'Administration de l'Assistance Publique, has given great satisfaction to the Profession in Paris. He is well known to them for his remarkable reports on the cholera epidemics, and being of a benevolent and urbane disposition, it is expected that his numerous relations with the Profession and the poor will work harmoniously. "Here, then," says the *Union Médicale*, "we have a post given to a person thoroughly competent to fill it, and a function confided to one who is well aware of all its exigencies." M. Blondel is the author of an important report on the charitable establishments of Loudon.

ORIGINAL COMMUNICATIONS.

THE MADURA FUNGUS-FOOT OF INDIA.

By JABEZ HOGG,
Surgeon to the Royal Westminster Ophthalmic Hospital,
Hon. Sec. R.M.S., etc.

It is now rather more than ten years since Dr. Vandyke Carter, of the Bombay Army, made us acquainted with a certain specific form of microscopic fungus (mycetoma), which he alleges produces among the native population of Madura, and some other districts in India, a peculiar disease, since recognised as the fungus-foot of India.

A number of specimens of the foot have been examined in this country, and Dr. Carter's description of the disease and its histological and pathological characteristics have been generally accepted. It appears, however, that now and then a specimen has failed to satisfy those into whose hands it may have fallen, of the fungoid character of the disease. Dr. Carter speaks of such a specimen as a variety with "numerous rounded bodies of a structureless or finely granular appearance, in which the fungous particles are free from crystalline fringe, and showing a cellular structure, the true nature of which is "degenerate fungi."(a) A specimen of this variety appears to have perplexed Dr. Ballingall, as well as the late eminent microscopist, Professor Quekett, both of whom were in consequence unable to satisfy themselves of the fungoid nature of the disease.

At the end of the year 1869 a foot of, I suppose, the same kind came into my possession for examination, and I must say I was not a little surprised and somewhat disappointed, after a most carefully conducted examination, to be obliged to come to the conclusion arrived at by the authorities just alluded to, that although the foot presented ample evidences of an unusual form of disease, there was no proof whatever that it was due to the growth and destructive ravages of a fungus. Curiously enough, the first few sections which were made and washed in distilled water, for the purpose of freeing them from some apparently crystalline and fatty matters, seemed to afford considerable encouragement, for small quantities of spores and flocculent filaments of a fungus were readily detected. Here, then, I thought, there could be no mistake, and I accordingly put the specimens away for further examination. When, on resuming my work, I at once transferred other sections of the foot to a solution of glycerine and spirit, on examining them I could see nothing like a fungus. I was at first not a little puzzled; a further examination, however, of the distilled water at once showed the source of error in the first prepared specimens. A single dip from the same bottle of distilled water gave me a plentiful crop of the same species of fungus; the spores of which, indeed, abound everywhere, soon to spread with amazing rapidity upon almost everything, ripening and depositing their spores, with powers of self-increase so rapid as to be almost incredible.

The naked-eye appearances of this fungus-foot may thus be briefly stated. The foot was greatly enlarged and swollen, with numerous excrescences, fungoid-looking bodies distributed over the upper part, none on the lower. At first sight these might have been thought to communicate with the internal structures; but on attempting to pass a probe through the centre of any one of them, it could not be made to penetrate more than a short distance, and I doubt very much whether there could have been any actual sinuses leading to the bones during any stage of the disease. The hardening nature of the methylated spirits in which the specimen was preserved may, however, have had something to do with their obliteration. On making a vertical section of the foot, much confusion of parts existed, so that the muscular, fibrous, connective tissue, and vessels seemed to be blended in a semi-gelatinous mass. On removing portions of the bony mass, most of the compact tissue of which had evidently been absorbed, the cancellated interspaces were found occupied by numerous whitish compact bodies, somewhat resembling millet seeds. These bodies, which Dr. Carter says are of a pink colour in the fresh foot, were apparently mixed up with some crystalline material; but fatty matter so predominated that it was almost impossible to free any section from it without resorting to boiling in ether and liquor potassæ. When boiling in the latter was resorted to, nearly all the fatty mass was held in solution, the residue being a very small quantity of connective and fibrous tissue. A greater portion of the bony mass also disappeared when treated in the same way. On the other hand, when the spores and mycelia of a fungus were subjected to a similar process, sufficient remained behind to enable anyone to recognise its species, and without difficulty. The spores of fungi seemingly resist the action of boiling fluids, as they do prolonged and intense cold. We are therefore under no apprehension of losing all trace of them, while subjecting animal matter to the crucial test of boiling in a destructive reagent. A prolonged microscopical examination yielded only negative results with regard to fungi. The cells and fibres, which Dr. Carter says "are imbedded in black masses of matter," could nowhere be found; neither could any of "the fishroe-like substances, made up of defaced fungous structure," be seen.

The papillæ were hypertrophied and mostly structureless; nothing like fibrillation or a capillary loop could be made out, even in sections from the sole of the foot. The epithelial and other layers were so blended that not a perfectly-formed nucleated cell could be obtained. The pigment, generally so abundant in the skin of the black race of human beings, was nearly all removed. Portions of the sub-filamentous material occasionally presented an appearance somewhat resembling ciliated epithelium. These were readily broken down, and floated about in a mass of granular particles, without nuclei, and only slightly fibrillated. Fat corpuscles abounded, either free or arranged, and massed in cells, in some of which were seen groups of smaller corpuscles, giving a false appearance of nucleated cells. The subcutaneous infiltration of oily particles, and the disintegration of the various tissues, gave to all the specimens placed under the microscope a confused resemblance; and although some few bodies of a "spindle shape" were seen, it is impossible to conceive that they were either "ciliated epithelium," "degenerate fungi," or the altered forms of "a true oïdium," the material contents of the branching tubular canals of which have become altered through some kind of natural quiescence or encystment. If such encystment had taken place in this instance, it had become a complete disguise of all known fungous characteristics, and under such a disguise it was not at all surprising that the late Professor Quekett should fail to come to any "definite opinion of its character."

I have no doubt, however, that the fungoid evidences which have been described by Dr. Carter and other observers in connexion with this remarkable form of disease may be occasionally found. In a specimen more recently sent to this country, and which, by the kindness of Dr. Tilbury Fox, I have been enabled to examine, I have seen evidences of algoid filaments. In this specimen the sinuses are of a considerable size, and, when examined from within outwards, present a somewhat funnel-shaped appearance, but rather leading *from* than *into* the bones of the foot. The destruction of the small bones of the foot is curiously complete—the compact tissue being wholly removed, leaving behind only the open spongy portion, in the interior of which large and small nodulated masses of black matter, which, when fractured, look like crystalline masses of stearine, mixed with the colouring matter of the blood. Sections of these bodies present no evidence whatever of fungoid growth; and although in a few other specimens in a semi-fluid condition flocculent filaments were found, I may fairly say that the small quantity of algoid matter mixed in any specimen examined was sadly out of all proportion to the rest of the disorganised matter. Oily particles, blended with fibrous and connective tissues, and often crystalline bodies in indescribable confusion, were the rule; while in a few instances semi-transparent yellowish scales of a more definite character were occasionally seen blended with the fatty and granular particles. A portion of the black mass taken from the interior of a bone proved to be an exceedingly intractable substance. I submitted it first to the action of boiling alcohol and ether, neither of which agents affected in any way the colouring matter or crystalline substance. Benzole, hydrochloric acid, and liquor potassæ were tried in succession, with a negative result. Boiling in sulphuric acid converted a small nodule into a bituminous liquid, but on the addition of water it was immediately precipitated in the form of scales. Hot nitric acid completely dissolved a mass with effervescence, giving off at the same time fumes of nitrous oxide, leaving only a perfectly clear yellowish solution behind. Fragments placed in a platinum spoon, and brought to a blow-pipe heat by a Bunsen burner, burned with a bright flame, and whilst so burning gave off a peculiarly pungent odour, leaving behind an exceedingly minute portion of whitish ash.

(a) Transactions, Bombay Med. and Surg. Society 1860-62, and *Medico-Chirurgical Review*, vol. i., 1863, etc.

The attempted destruction of fungoid matter by the same reagents is not nearly so complete, and not until after long boiling in nitric acid is all trace of spores and mycelia lost. An excellent chemist and microscopist, at my request, submitted a portion of the mass to a chemical analysis, and found it to consist of fatty matter, phosphates of iron and lime, a little carbonate of lime, and a small quantity of an organic substance—albumen—and not a particle of anything like a fungus.(b) In one or two specimens I noticed the spores of a puccinia—"a vegetable parasite"—as well as minute fragments of vegetable tissue—cellulose—which doubtless must have been accidentally introduced.

The Rev. Mr. Berkeley assures us "there is not the slightest ground for supposing that the disease depends on inoculation with the spores of the true parasitic fungi belonging to the rusts and mildews,"(a) and certainly Dr. Carter takes a very unusual view of the sinuses, through which he believes such fungus-spores enter. In this specimen of diseased foot they are very large, presenting almost the appearance of having been bored out by an animal rather than a vegetable parasite; but, admitting the sinuses to be either small or large, do they not in every case indicate a pre-existing state of disease, and of a very grave character? How is it proposed, then, to clear up this difficulty, and that of a vegetable parasite, in connexion with this fungoid hypothesis of disease? Another point of scarcely less moment: Does Dr. Carter consider the less frequent variety of diseased foot—that is, the foot in which "degenerate fungi with numerous rounded bodies" are the chief elements of destruction—an earlier or a more advanced stage of the disease than that in which fibroe-like bodies are found? Since in the first the fungi must have passed into a degenerate state, it certainly should be a more advanced stage—that is, so far as ordinary appearance and facts assist us in arriving at an opinion. The destruction of the various tissues in the first specimen of foot is not nearly so great as in those in which the mycelia of a fungus have been found. I cannot believe, therefore, that what Dr. Carter describes as degenerate fungi are fungi at all; although, as Mr. Berkeley justly observes, "they so nearly simulate fungous growths that it is difficult to get rid of the notion that they are not really vegetable growths."

How are we to account for the appearance of a mycelium in connexion with this remarkable form of disease? My own belief is that it is simply an example of a rapidly developed algoid growth in a putrescible substance, occurring after death. One fact certainly seems to me to be established with regard to fungous growths generally. They are so apt to become developed in connexion with any and every organic decaying matter, as to lay open to serious doubt the conclusion that fungus found in connexion with disease is essentially the cause, and not the result, of the disease. It is a matter of some importance that this point shall, if possible, be cleared up, as we are too prone, in matters of pathology, to jump to conclusions upon insufficient data. The eminent mycologist already referred to, the Rev. Mr. Berkeley, not only accepts the hypothesis of the fungus-foot disease, but also describes the fungus as a new species, and assigns to it a new name; and, although "the fungus resembles closely the genus mucor," he nevertheless prefers to place it with chionyphe, a species "only found under snow," and concludes with what might be regarded as special pleading for a pet hypothesis—as we cannot lose sight of the fact that we are discussing the action of a fungus in a living body, while his remarks have reference only to its action on dead animal matter; and, whatever that action may be, there can be no similarity in the two processes. "It is," he observes, "highly probable that many of our common moulds commence with a similar condition. The first indication of a change in tainted meat is seen to commence with little gelatinous spots of vegetation of various colours, the early stage of some curious species of aspergillus or penicillium." Hospital gangrene may, he thinks, also depend upon a similar cause. I think neither Mr. Berkeley nor any other observer can produce a particle of proof in support of such a "probability," which is really no nearer the truth than the many guesses that have been made at a germ theory of disease generally.

To establish Dr. Carter's fungoid origin of the diseased foot, it is absolutely necessary to show that the spores of a vegetable fungus can penetrate the dense structures of the animal body during life; these germinate and destroy, one after the other, the fibrous, cartilaginous, and bone tissues, and ultimately kill the patient. At a glance, the character of the tissues might seem to make this impossible; and Mr. Berkeley evidently has his misgivings on the point, for he writes:—"The little granular bodies are so closely involved in stearine that their germination is scarcely probable." The symptoms are also somewhat inconclusive and unpronounced in favour of fungus, as described by Dr. Carter:—"The foot swells up, is of a dark colour, numerous sinuses appear, with pink stains or streaks, which penetrate the subjacent tissues, and end in spherical groups of bright orange-coloured particles. The sinuses are more or less lengthy and tortuous, and will not usually yield to pressure of the probe," etc. Nevertheless, it is expected that the soft yielding spores of a fungus will find their way through these tortuous sinuses, passing along in an opposite direction to a strong outward flow of sanious discharge, the usual accompaniment of such a condition of disease. Dr. Carter does not for a moment believe that the sporules, although minute enough, could enter through the circulation—a more generally believed opinion, and an equally probable mode of conveying the contagion to the internal parts of the body. The endemic character of the disease would be more easily accounted for in this hypothesis, as it occurs often in districts where the growing crops of rice are at times devastated by "smut," once thought to be the cause of cholera. But it could not be believed to enter through the blood, because in such a case it would be impossible to understand why the spores of a fungus should select a hand or a foot, and find in either a more congenial soil than in any other part of the human frame: or why one foot should be destroyed and the other escape: why the poison should stop at the part where the bones of the leg join the foot, and so forth. The constant occurrence in the internal organs of algoid growths has long been noticed—sarcinæ, for instance, in the stomach and bladder; but, after the disease has existed for years, it has not been observed to destroy life; indeed, it often produces so little disturbance to health that it is only detected after death. Other so-called fungoid diseases—such as those which some believe to be the cause of cholera, pyæmia, etc.—I need not dwell upon, because they rest their claims to consideration upon the most inconclusive of experiments and observations.

The incubation of the disease demands a passing notice, as, according to Dr. Carter, it more frequently affects the agricultural classes, men in the vigour of life; is not associated with constitutional causes, and is not known to be transmitted—*ergo*, since agricultural labourers go about barefooted, and seldom wash their feet thoroughly, it is thought that the spores of a fungus will penetrate the very hard skin, and produce "worse ravages than the dreaded guinea-worm." Although I can easily understand how the guinea-worm makes its way through the skin of a native, particularly when softened by standing in water, I cannot see how the spores of a fungus should be capable of exerting the same force as an animal parasite provided with a mouth and jaws, and a pre-ordained desire to provide a lodging in the leg or foot of the first animal that comes in its way. It must be conceded, also, if the disease originates in a fungoid growth, there should be no instance of a foot which does not bear some evidence of the characteristic poison. Such a specimen as I have been discussing, without a particle of fungus, places the hypothesis of a fungoid disease in a serious dilemma. My objection is in no-wise met by saying that this form of diseased foot is exceptional, for curiously enough two out of three specimens I have examined present no positive evidence of fungus in any portion of the diseased mass, and the appearances observed scarcely come under the designation of flocculent filaments. It appears also to be a form often met with, for Mr. H. I. Carter, F.R.S., in his early examinations of diseased feet, found a large quantity of albuminoid and fatty matters, and attributed the abnormal condition "to fatty degeneration." In subsequent investigations of other specimens he discovered fungi, and changed his opinion, but adds, "I could scarcely overcome the difficulty in believing it possible for a fungus to destroy the bones as well as the other tissues of the foot." Another trustworthy observer (one who has examined several specimens of the disease) writes to me, "Although the soft parts are infiltrated with a lump of truffle-like bodies, I am not prepared,

(b) The chemical composition of these masses resembles very closely the white stony concretions submitted to Gmelin in 1821 by Tiedemann, who discovered them in the muscles of a man who died from the combined effects of brandy, dropsy, and gout. Gmelin found them to consist of 73 parts of phosphate of lime, with a trace of iron, 7 parts of carbonate of lime, and 20 parts of animal matter similar to albumen or fibrine. Tiedemann believed them to have resulted from the violent attacks of gout; but this guess proved to be only a stepin the later discovery made by Hilton and Owen—that these "concretions" were a species of hydatid—and which the latter observer, in 1833, proved to be the cysts of the dreaded trichina spiralis, and that the supposed concretions were due to calcification of the cysts after the death of the spiralis worm.

(c) Rev. S. M. Berkeley "On the Fungus-foot of India." *Intellectual Observer*, vol. ii., page 248. 1863.

to say that the fungus causes the disease; it rather seems to me probable that the primary disease was caries of the bones, and that the fungus became developed subsequently and accidentally. The latter view is supported by the nature of the foot which you examined." I feel bound to believe that the destructive character of the disease is due to caries occurring in a strumous, scrofulous, or syphilitic constitution. In caries a somewhat similar train of pathological appearances are often met with.

The foot disease of India appears to commence in an error of nutrition, phlegmonous inflammation and diffuse suppuration follow, and spread from one tissue to the other. Specific blood-poisoning, hypertrophy, and increased cell-development soon pass into complete disintegration of tissue-vessels, nerves, etc. The process of retrogression, at first slow, proceeds to rapid destruction, and soon the albuminoid, oleaginous, and crystalline constituents are blended in an incongruous mass. The fatty matters assume, in connexion with the flattened connective-tissue cells, an angular, a spindle, or even a mulberry shape. It is obvious that the colouring matter of the nodulated masses must be derived from the iron of the blood; and sanious fluid, with fat, stearine, and phosphatic matters, blend into the carbonaceous masses—"fishroe-like bodies"—which are seen to fill the cavities of the bones. The slow disintegration of the various structures in the Madura foot-disease is no doubt greatly exaggerated by the ordinary effects of a tropical climate, often an important factor in disease, and one well exemplified in those remarkable forms, elephantiasis and leprosy, both of which doubtless originate in an error of nutrition, and end in a complete metamorphosis of cell-contents.

THE

PREPARATION AND PROPERTIES OF THE VARIOUS KINDS OF CHINESE TEA.

By F. PORTER SMITH, M.B. Lond.

It is proposed to review the various stages and processes of growth and manufacture of tea, as supplied by China to the civilised world, with reference to the mediciual and dietetic properties of the various forms of this "necessary of life." It is to the credit of the Celestials that, whilst they do not live under the strict rule of Islam, they have elected to confine themselves chiefly to the use of a drink which has commended itself to all sorts and conditions of men. In no other country is such a store of wealth drawn from the very leaves of trees as in China, where the mulberry-leaf furnishes silk for clothing, and the tea-leaf material for satisfying hunger and thirst.

The tea-plant of China, the *Thea Cantoniensis* or *Thea Viridis* of botanists, is not the same as that used in very remote periods by the people of the classical period. They probably used the leaf of the chicory, as well as those of other plants still used in various parts of the country, such as the willow, the holly, the *Sageretia theezans*, and other plants.

Since the seventh century of the Christian era the growth of the tea-shrub has been sufficiently extensive to invite taxation by the Emperor, though to a much less extent than cereal crops, the chief dependence of the people of the "Middle Kingdom," the name by which China is known to its own people. The tea-shrub is met with in Hupeh province as a small, stunted evergreen bush, varying from one to three feet in height, and covered with a precarious growth of young shoots, bearing shining, ovate-pointed and irregularly serrated leaves. It is grown on the hill-sides or terraces of such districts as have a red and rapidly disintegrating sandstone soil, where rice could not well be raised, from the difficulty of irrigation. The shrubs are renewed from young seedlings, after some ten years or so, according to the enterprise of the peasant grower. Formerly the bushes were renewed every five years, but the extraordinary and insatiable demand for tea has led to the exhaustion of the plants, as anything in the shape of tea is bought by the speculative and indiscreet foreign trader. The seeds are often abortive, from the damage done to the tree by the remorseless stripping of the leaves. The seeds require some peculiar treatment, such as the soaking in a prepared liquid, or in an artificial mould made of exhausted oilcake. Several seeds are placed together to insure the growth of a single seedling. The seeds yield a fixed oil, which is said to never turn rancid. The tea oil known to foreign residents in China is the product of the seeds of the *Camellia oleifera*, a plant called by the same name (*Ch'a*) as the tea-shrub. The various kinds of tea—namely, green, black, red, and brick tea—are all produced by the same kind of shrub, which shows some slight tendency to variation in some such simple characteristics as the length of the leaf, etc. The leaves are picked at three or four periods of the year, commencing with the latter part of April. The bushes are finally clipped to make some of the brick tea, and to encourage the growth of young shoots in the coming spring. The raw leaves are dried in the sun by spreading on mats, and the shrivelled product pressed and rolled by men, who stand in tubs, kneading the leaves into a ball with their naked feet. This operation gives the twist to the leaf, and removes superfluous watery juices. The tea is seldom dried by fire by the small tea-growers, unless the weather be wet and the tea liable to mould from the want of sun-heat. It is stored in bags long enough to collect a quantity, and is then "fired" by placing it in thinnish layers on the convex diaphragm of a large hopper or basket, shaped like a dice-box, with both ends open, which is put over a charcoal fire. The leaf is exposed to this heat (which never exceeds 212°, and is moderated by placing a thick layer of wood ashes over the fire) for about two hours, being stirred up several times, so as to heat the whole of it gradually and thoroughly. Processes of sifting, winnowing, mixing, and picking follow, and a final "firing," to get rid of moisture acquired during the manufacture, fits it for packing in chests. The stalks are usually rejected, as foreign tea-buyers do not like them. They contain all the properties of the leaf, and are largely consumed by the Chinese. The tea ought to undergo no change in the chests, which are carefully closed by soldering. The flowers of the *Aglaia odorata*, the *Jasminum Sambac*, the *Chloranthus*, and perhaps other plants, such as the *Gardenia*, are used to scent the tea. Dried leaves of the *Salix alba* are used to adulterate tea sometimes, but in the interior of the country such practices are commendably rare. Black tea forms the bulk of the produce, and is preferred by the Chinese for ordinary drinking. Red tea is made from the same kind of tea-shrub, and is of a brownish-black, rather than a red, colour. The infusion is certainly of a deep-red colour, and this may be the origin of the name *Hung-ch'a*, or "red tea," a name given to it by the Chinese. Green tea is made in Hupeh to some extent by picking at the very beginning of the season the fine hairy summits of the youngest branches of the shrubs. Brick tea is made from the clippings of the tea-bushes, the dust of black tea, and from any other description of leaf. Odd stories about blood and other substances being mixed with the tea-leaf and dust are perfectly unfounded. There are "large green bricks" of the coarsest sort, "small green bricks" made of a better kind of tea-leaf, and "small black bricks" made from good tea-dust. The shape of the tea which is used as a means of barter by the Mongol tribes is more like that of a tile than of a brick. In making brick tea the leaves and dust are steamed, pressed in moulds of a uniform size, and carefully dried without access of the sun, or any other direct source of heat.

This tea goes to the Siberian, Buriat, Tungous, Kirghis, and Mongol tribes, who chop it up with salt and butter, or koumiss, after exhaustion of the leaf in the ordinary way. The people of Thibet wisely add a little carbonate of soda to the water used in brewing their tea from slices of the bricks.

If two or three leaves be picked from a tea-shrub and chewed in the mouth, very little in the way of marked impression is made upon the sense of taste. A grassy, slightly bitter, but scarcely astringent flavour is brought out in the mouth. The peasants picking the leaf or passing through the tea shrubberies are seldom seen to gather the leaf and partake of it, as schoolboys do of bramble leaves in English lanes.

Prepared tea-leaf is, in fact, a very different thing from the raw, growing leaf of the shrub. Chinese tea consumed in the country, and prepared by a single "firing," after drying in the sun, is also a very different article from the Congou tea prepared for the English market. On this account, Chinese statements and experience are of no great use in determining the effects of tea as consumed in western countries. Russian tea, which undergoes no special preparation for the short overland journey which it has to make, is more like the Chinese native tea in flavour. Foreign new tea—that is, tea prepared and still in China—is a very different article from the tea when placed in the teapots of English villagers, after being conveyed in an iron ship through the tropics, in large quantities of some ninety or more pounds. Tea is described in the Chinese Pharmacology as cooling, peptic, exhilarating, rousing, both laxative and astringent, diuretic, emmeuagogue, and in large concentrated doses as an eruetic. It is used as a wash for sore eyes, ulcers, and wounds of all kinds. It is understood by Chinese Physicians that the excessive use of tea renders people thin, anæmic, and weak-sighted. Tea is taken by Chinese

scholars and labourers to stave off the cravings of hunger until a convenient season arrives. Much of the so-called tea taken by the common people in China is nothing but very warm water. Hot water is often taken by them in large quantities when threatened with colds, fevers, and other acute or chronic diseases, apart from considerations of economy. They regard it as antidotal, corrective, solvent, demulcent, diluent, lenitive, stimulant, deobstruent, diaphoretic, diuretic, and lithontriptic in its effects. Such a dose is much more sensible than the inevitable "sixpenn'orth of the best French brandy" which the English rustic gulps down in the emergency of pain or some other symptom. Experience has taught the Chinese that weak tea is much better than cold and impure drinking-water. They are exceedingly particular as to the water used in tea-making. They prefer the comparatively soft water of their large muddy rivers, so often swollen by rain and the melting of snow. They object to tea made from lake water, as they consider it unwholesome and having a tendency to render the mind dull and slow.

(To be continued.)

OBSERVATIONS ON LIGATURE OF THE SUBCLAVIAN ARTERY.—A NEW INCISION SUGGESTED.

By Assistant-Surgeon F. P. STAPLES, Medical Staff.

That ligature of the subclavian artery on the living subject is not an easy operation, even in the hands of the most experienced Surgeons, few will question, while, on the dead body, there is no doubt that most Surgeons have seen attempts to occlude that vessel fraught with considerable difficulty, if not with actual unsuccess. To assert such truisms, however, is not my object in writing, but to bring before the notice of Surgeons a method which I have practised for some time, and by which, I venture to hope, the difficulties of ligaturing that vessel in the third stage can be overcome.

Operation.—The patient being placed in the usual position, with his head back and to the opposite side, with his shoulder depressed slightly, but not violently, let the point of the knife be entered at the posterior edge of the sterno-mastoid muscle, one inch and a quarter above the superior margin of the clavicle, and let an incision be carried from that point, in a straight line, to within a quarter of an inch of the attachment of the trapezius to that bone, dividing skin and platysma. This incision should be a little short of three inches. The operator should then lay aside his knife, ligature the external jugular vein in two places, and divide it in the direction of the original incision. The deep cervical fascia should now be divided, and the edges of the wound gently separated, when the posterior belly of the omo-hyoid muscle will be exposed for its entire length. The edges of the wound should now be retracted, and the superior retractor should carry with it the omo-hyoideus; and when this has been done, the white cords of the plexus, with the artery inferior and internal to them, will be observed to occupy the bottom of the wound. The knife should now be laid aside, unless it is necessary to dissect a lymphatic gland out of the way, and the vessel separated from the lowest cord of the plexus with a director, and ligatured in the usual manner. Tying the external jugular vein is not insisted upon, provided it can be easily drawn aside, but generally a ligature would expedite matters, and any branches of this vein which cross the line of incision should, if divided, be treated in the same manner.

What are the advantages claimed for the operation recommended? Why have the stereotyped guides to the artery—viz., edge of anterior scalenus, and tubercle on first rib—not been mentioned? What special advantages has the operation described over that commonly practised—*i. e.*, by incision along or near upper margin of the clavicle?

The advantages claimed for the operation are—1. That the incision is parallel to the normal course of the artery. 2. That the true guide to the vessel—posterior belly of omo-hyoid—is exposed by incision recommended for its entire length. 3. That the edges of incision admit of easy retraction and, in this way, of easy access to the vessel. 4. That the risk of venous hæmorrhage obscuring the final steps of the operation is lessened.

My answer to the second question I have asked is very simple. To feel the edge of the scalenus anticus in a bleeding wound is next to, if not quite, an impossibility, and it does not follow that the tubercle on the first rib is always so well developed as to permit of recognition by the sense of touch; and, independently of both these Surgical signposts, it has always appeared to me that a far more reliable guide is to be found in the omo-hyoideus.

Regarding the third question—What special advantages are claimed for this operation over that commonly practised?—it may be stated, I think, that, if an incision is made in a line with the clavicle, it is obvious that, when carried deeper, it will not meet with the omo-hyoideus or true guide unless at its outer angle; whereas the incision recommended is parallel to that muscle throughout its entire length. Secondly, in the wound resulting from the ordinarily used incision, retraction can only be made in an upward direction, as the clavicle prevents retraction downwards; whereas, with the incision now recommended, retraction can be made in both directions. Thirdly, in the incision recommended there is no risk of dividing the transverse cervical vessels; whereas, when the incision along the clavicle is used, they are often cut, and, when it so happens, very troublesome bleeding obscures the further steps of the operation.

Barully, Rohilcund.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

MIDDLESEX HOSPITAL.

CLINICAL LECTURE ON A CASE OF INTESTINAL OBSTRUCTION.

(By Dr. HENRY THOMPSON.)

A. B., aged 51, married, was admitted July 6. Has been generally liable to colds; otherwise in good health. Catamenia always profuse until three years ago, when they finally ceased. She then had great pain about the back and umbilicus at the menstrual periods for six months. For the last two years has experienced at times sudden attacks of pain in the hypogastrium, with distension of the abdomen. These attacks have, for the most part, passed away in the course of a few hours. Considerable emaciation during last six months. For two years the bowels have been habitually constipated, but not specially so during the above-mentioned attacks. About four months ago she was seized with violent shooting pains in the hypogastrium, relieved by the application of six leeches. She remained perfectly well until June 30, when she suffered from severe pain in the left iliac region, accompanied by flatus, and followed by absolute constipation, which has continued ever since, but there has been no vomiting up to the present date.

On Admission.—Face extremely pale and sallow; abdomen enormously distended; apparent fluctuation in flanks. Percussion-resonance very imperfect everywhere; dull in left flank when she reclines on that side. Enemata (Ojss.) were administered, but returned immediately, before the whole amount was injected. Pulse 120; respiration 20; temperature 99°. 9.30 p.m.: Pulse 118; respiration 20; temperature 98·8°. Severe pain at umbilicus; pulse irregular in force.

July 6.—Two enemata ordered, Oj. and Oj. ʒvj. Oj. respectively; both returned as before.

7th.—Slept after chloral. Pain and griping in hypogastrium and left iliac region. Another enema slowly injected returned immediately before it could be wholly introduced. A slight degree of apparent dulness over flanks when patient lies on either side, and a feeling like that of fluctuation, but not unequivocally the same. Has been vomiting for the first time, eighth day from invasion. Matters vomited simply viscid and bilious. Urine of specific gravity 1025; non-albuminous.

8th.—Pulse 134; respiration 24; temperature 99·7°; no pain, but slept ill; no vomiting; hands clammy; pulse feeble. Seen by Mr. Lawson, who discovered nothing of moment within the rectum. 9 p.m.: Pulse very weak, 138; respiration 20; temperature 98·4°; severe pain in left iliac region; extremities cold.

9th.—Pulse 136; respiration 20; temperature 98·4°; slept at intervals, but sweated profusely during night; no vomiting; no pain. As much barley-water as the patient can bear to be introduced gently and gradually into the bowel. 4 p.m.: Amussat's operation decided upon after consultation with Mr. Lawson. 5·30 p.m.: Enema caused considerable pain, and returned like the rest. Chloroform having been administered, Mr. Lawson introduced a long stomach-tube eighteen inches into the bowel with the greatest ease; about a quarter of a

pint of the enema and some flatus escaped. The inference was drawn that there was no obstruction at the sigmoid flexure, and it was decided to defer all operative proceedings. 9 p.m.: Pulse 150, very weak; respiration 26; temperature 101·6°; slight delirium.

10th.—Pulse 138; respiration 32; temperature 101°; delirious during night; wandering now and sweating profusely; no action of bowels since June 30. Seen by Mr. De Morgan, Mr. Lawson, and Mr. Hulke. It was decided to give the patient the last chance of life by performing Amussat's operation on the right side. The patient was in an extreme state of collapse when placed upon the operating-table. Not more than one drachm of chloroform was administered during the whole operation, which was performed quickly, and without difficulty. At the beginning there was slight amount of fæcal vomiting for the first time. Towards the close, the pulse became extremely weak, and the respiration slow and gasping. Brandy was injected into the rectum and vagina, with temporary amelioration of the pulse, which soon, however, began to lose force rapidly, while the respiration grew slower and more gasping. Almost immediately after the incision into the ascending colon, and the escape of about three pints of liquid fæces, the breathing ceased.

Post-mortem, Twenty-four Hours after Death.—Rigidity marked. Thorax: Heart coated with adipose tissue; its muscular walls soft and friable. Lungs emphysematous; otherwise healthy. Abdomen: Liver large and fatty. Kidneys normal. There was about an inch and a half of bowel between the caput cæci and the opening into the ascending colon. The peritoneum of both the walls and viscera was smeared over with a creamy yellow lymph, which accumulated towards the surfaces of contact of one coil of intestine with another. The small gut was much distended, and its coils occupied the greater part of the front of the cavity, but below a large blackish slate-coloured coil was seen occupying the hypogastric and left inguinal regions. A thin, semi-transparent omentum passed over the front surface to the lower anterior and left lateral wall; its margin was adherent to the peritoneum, along the left lumbar region external to the colon, and to the front of the abdominal wall, along the line of Poupart's ligament, and the back of the symphysis pubis. The omentum did not reach to the right inguinal region. On cutting off the lower part of the omentum, so as to leave the margin adherent to the abdominal wall, and then removing the greater part of the small intestine, it was found that a fillet of the omentum stretched across from the front wall, near the symphysis pubis, and adhered to the peritoneum binding down the rectum to the sacrum, as well as to the sigmoid flexure at its junction with the descending colon; and to this spot a coil of small intestine, about six inches from the cæcum, was also adherent. This latter, however, was perfectly free from all obstruction, and only adherent by a very short and broad band, attached to its convex surface. The sigmoid flexure lay quite to the right of the fillet of omentum, and was constricted by it, the upper bend being most tightly gripped, and the lower—*i.e.*, at the point of junction of the sigmoid flexure with the first part of the rectum—much less so, allowing an œsophageal tube to be passed through it, nearly to the upper constricted point. The whole of this coil was prevented from sinking in the pelvis into the recto-uterine pouch, and was in consequence pushed up against the band of omentum by a large uterus, six inches long and ten and a quarter in circumference. The uterus contained many fibrous growths within its walls; it completely filled the whole space between the bladder and rectum, and rose above the level of the brim of the true pelvis. The calibre of the constricted coil varied at different parts, from four to five and a half inches in circumference. At the upper seat of the constriction the circumference was one inch and three-quarters; at the lower, two inches and one-fifth. At both these spots the coats of the bowel were thinned, excepting the sub-mucous one, which was converted into a white shining band. The colour of this portion of the bowel was blackish slate, and between the points of constriction the thickness of the gut was increased, owing chiefly to inflammatory œdema. The descending colon was immensely distended, and gave the appearance at its upper end of being the stomach. Much thin yellow fæcal matter and flatus occupied the bowel. The intestine everywhere was very lacerable.

Gentlemen,—Practically, the first and foremost point you have to determine in cases of the foregoing character is the seat of the obstruction. As a rule, you will be fairly well guided in this respect by the routine code of regulations issued for the purpose. Early vomiting, sudden and violent pain, early discharge of stercoraceous matter, scanty urine, an undistended or partially distended abdomen, and rapid collapse are, it is said, the sure signs of obstruction seated in the small intestine, while the converse phenomena, in particular the resonant and voluminous belly, are held to be decisive in favour of the large intestine. Such are the laws laid down by the authorities, and, though not absolutely binding, on an average they will lead you to a correct conclusion. They may be unphilosophical, and it may possibly be that the symptoms are rather determined by the cause and nature than by the seat of the lesion, but you must remember that peculiar lesions specially infest peculiar divisions of the intestinal tube, and are almost appropriate thereto. For most practical purposes, the rules in question may stand, and in accordance therewith we were bound to conclude in our case that the obstruction lay in the lower bowel, where the pathological changes usually discovered on post-mortem examination are strictures and torsions or twistings. Strange to say, at the autopsy we found neither the one nor the other, properly speaking, but an old fibrous band constricting the origin and termination of the sigmoid flexure, so as exactly to isolate it from the adjoining segments of the intestine. Such bands are common enough in the upper division of the tube, but they are infrequent in the lower. Altogether, the case was anomalous in many respects; the absence of borborygmi and of the well-known serpentine writhing and rolling of the bowel was especially remarkable, and perhaps difficult of explanation, unless we suppose that such movements had taken place before admission, but after that date had become impossible from paralysis or inflammation, or that the obstruction in the bowels had not lasted long enough to produce that hypertrophy of the muscular coats above, which some hold to be the essential condition of visible peristalsis. How are we to treat these cases? I speak of obstructions in the large intestine. Full and frequent doses of opium should be administered, with the view of arresting inordinate peristaltic action, and its consequence, undue distension of the gut, which would only aggravate the mischief. Food should be supplied in small quantities at a time, and in the liquid form alone, and simple enemata of warm water, milk, or gruel should be gently and gradually injected into the rectum, in order to reach, if possible, the seat of the obstruction, and overcome the stricture, or twist, or whatever the mischief may be. If I failed in accomplishing my purpose by these measures, I should, in all cases except those of simple constipation, after the lapse of twenty-four hours, or sooner if the writhing of the intestines should continue unabated, or symptoms of collapse should ensue, deliver the case into the hands of the Surgeon, and suggest colotomy—Amussat's operation, as it is commonly called. I should be guided in the selection of the right or left colon by four main considerations—(1) By the *primâ facie* presumption in favour of the left side, which is by many times the commoner seat of the obstruction, (2) by the amount of distension perceptible either in the whole colon or in this or that particular division thereof, (3) by the direction of the before-mentioned writhings and undulations as they seem to bear on a particular point, (4) by the amount of injection which the intestinal tube is capable of retaining, although it must be acknowledged this last criterion is often misleading. I am disposed to agree with Dr. Brinton in deprecating the use of bougies, long flexible tubes, and the like instruments, either as dilators of stricture or as vehicles for the introduction of enemata. Nay, more, I go along with the same authority in protesting against their employment for the purposes of diagnosis. They may do serious damage, and they very often fail in imparting the information we desire. No better example of their fallibility could be adduced than our own case. On July 9 eighteen inches of the stomach-tube were passed through the rectum and into the sigmoid flexure without encountering let or hindrance. It was taken for granted unhesitatingly, but unwarrantably, that the obstruction must be above the sigmoid flexure, and the operation contemplated at the time, with everything ready for its performance—that of colotomy on the *left* side—was at once abandoned. On the following day the operation was performed on the *right* side, just above the ileo-cæcal valve. The woman was too far gone, however, for recovery, and she died in the process. I do not mean to say that if the left colon had been opened on the 9th inst., as originally contemplated, she would have lived; but on principle I mention the fact that a day was lost, and in many cases the loss of a day may be the loss of a life. To the best of my belief, no incision of the colon would have saved or appreciably prolonged the life of this woman, even if we had operated on the very day of admission. I cannot imagine that the disorganisation of the sigmoid flexure would have been averted or arrested thereby; and even if we

had accomplished this great result, there still remained the overlying band of omentum, ready to renew the mischief at any moment. More than this, the walls of the intestine were not simply compressed by the band; they were intrinsically changed, puckered, and contracted. In other words, it was no longer constriction merely, but, to all intents and purposes, virtually, if not nominally, stricture. Let us dismiss now the question of colotomy, which leaves the peritoneum untouched, and turn our attention to the far more formidable operation known as gastrotomy, which lays open the peritoneal cavity. This operation has hitherto been limited almost exclusively to obstructions of the small intestine, and I confess I had not the courage to recommend it in my own case. Had I known for certain from the beginning the true nature of the lesion, I should have recommended it; but I did not, and could not suspect the precise lesion discovered, for, as far as I am able to ascertain from a perusal of the cases on record, it was most anomalous and exceptional. The history and symptoms, properly interpreted, seemed to indicate adhesions of long standing and to imply a condition of the lower intestine capable, indeed, for a while of discharging its functions well enough under ordinary circumstances, but capable also of taking on dangerous action and imperilling life at any moment. The slight and fugitive attacks of pain and distension recorded in the notes would appear to have been rudimentary manifestations of such a capacity; they were only the foreshadowings of that incipient strangulation which was so effectually arrested four months ago, and of that ultimately fatal strangulation which we have failed to arrest. Now, of all cases, those involving old adhesions are the worst adapted for gastrotomy. Nevertheless, if the exact lesion had been known beforehand, an exploratory operation, promptly performed on admission, or, at any rate, before admission, might have saved the life of the patient for the time being; for the case was peculiar in the fact that the adhesions were not extensive, but limited to the points of constriction at the extremities of the sigmoid flexure, leaving a large residue of the band entirely unattached as far as Poupart's ligament. If, then, this band had been divided through the free unadherent residue, and the adhesions been wholly or partially cut away, the constriction might in great measure have been removed, and the bowel restored in some degree to its old integrity of function and its old immunity from disease. Structurally, however, it could hardly have recovered its original calibre. We arrive, then, at this strange climax of a most extraordinary case—that operation which is deemed most suitable to obstruction of the small intestine might possibly have saved the life of the patient for some time to come; on the other hand, that operation which is our last resource, and often a most valuable resource, in obstructions of the large intestine, here not only failed altogether as it was performed, but would inevitably have failed, however and whenever it might have been performed. As to the origin of the constricting band, I cannot with any assurance of certainty determine its date; it may have been formed four months ago, but I am inclined to make it of much older standing, and to date it from the cessation of the catamenia. Perhaps the peritonitis, in which it originated, may have been connected with the development of the fibrous formations in the uterus. Whether the enlarging uterus had anything to do with the beginning of the mischief or not, certainly it would appear to have accelerated the end by circumscribing the range of the sigmoid flexure from below, and so conspiring with the constrictions above. The false membrane attached to the coil of the ileum may, by a process of constant traction, have interfered with the nutrition and functions of the part; but its influence in this respect must have been insignificant as compared with that exercised by the constricting band.

HIGHGATE INFIRMARY.

CASE OF SECONDARY SYPHILIS WITH BUBO AND SOFT CHANCRE.

(Under the care of THOMAS STRETCH DOWSE, M.D., Medical Superintendent.)

M. C. was admitted into the Highgate Infirmary on March 21, 1871. The history is simple enough. About a month prior to her coming to this Infirmary she observed a small sore upon what she termed her privates, which continued to increase in size and was extremely painful. In a short time the glands in the left groin became swollen and tender, accompanied with a vaginal discharge, and very shortly before her admission the body became covered with red spots, and she had sorethroat. When first examined, the perineum and skin around the anus and vagina were bespattered with nummular mucous elevations, destitute of epithelium, discharging thin ichorous matter, and showing up in dotted outline the hypertrophied sweat ducts. The labia were enlarged, and covered with a thin crust of mucopurulent secretion. Upon feeling carefully for hardened tissue every surface of mucous membrane, which is my usual practice, I came upon an ulcer at the base of the left labium, sharply defined, though irregular in outline, with narrow raised edges of a pinkish tint, the surface very tender, of a light brown appearance, covered with pus, without induration of the surrounding tissue. The vaginal mucous membrane was reddened to the extent of two inches, and discharging freely. There was no other sore, and she denied having had anything of the kind previously. The glands of the left groin were much enlarged, soft and fluctuating, with discoloured cuticle. Over the abdomen and flexor surfaces of anus and thighs the characteristic eruption (roseola syphilitica) was well marked, which soon spread all over the body, became copper-coloured, and desquamated. The tonsils were enlarged; their mucous surfaces, as well as that of the posterior wall of the pharynx, were ulcerated.

The treatment of this case consisted in mercurial fumigations—half a drachm of calomel for six weeks, nightly. At the end of this time all symptoms of specific taint had subsided. The gonorrhœal discharge ceased in a few days after the application of strong solution of diacetate of lead, followed up with daily plugs of cotton-wool saturated with a solution of tannin and alum in glycerine.

Two points seem worthy of note in this case—1st. The bubonic swelling surrounded by secondary rash. 2nd. The occurrence of secondary symptoms with what is usually designated as the soft non-infecting sore. Perhaps this case may be of interest to those engaged in the study of this class of disease.

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Medical Times and Gazette.

SATURDAY, JULY 22, 1871.

THE GENERAL MEDICAL COUNCIL.

In our comments on the proceedings of the Council last week, we had not time for more than a mere mention of the discussion on Dr. Parkes's motion concerning the formation of Conjoint Examining Boards. In the notes on the "Topics of the Day," however, we took the opportunity to point out some of the difficulties in the way of any really satisfactory outcome from the conferences on the present English Conjoint Board scheme. Those remarks, and the speeches made on the subject on the last day of the session of the Council, will have shown our readers that the prospect of any speedy formation of a Conjoint Examining Board—in the full and perfect meaning of the term, at least—is not quite so bright as it appeared to be from the statement made by Dr. Bennett on the fourth day of the session. It is abundantly clear that without the co-operation of the Apothe-

caries' Society, no satisfactory Conjoint Board can be formed. Dr. Parkes pointed out that unless the Apothecaries' Society obtained a fresh Act of Parliament, they would continue to issue their licence—in fact, they *must* continue to do so, we imagine, under their present Act, which compels them to hold a weekly Examining Board for all who choose to apply to be examined, provided they have complied with the educational requirements. The Council could not refuse to place the licences so obtained on the Register; and it is by no means certain that the Society could not compel the Royal College of Surgeons to admit their licentiates to examination; at any rate, there would be Medical authorities in the United Kingdom to whom the licentiates of the Apothecaries' Society could still go for a Surgical diploma, so that the present scheme for an English Conjoint Board would not give us the one-portal system, even in England. We do not find any solid grounds for hoping for one yet in Scotland; and as to Ireland, Sir Dominic Corrigan seems to forbid all hope of success in that division of the kingdom. Dr. Parkes observes that "If Sir Dominic was not converted, no Conjoint Board would be formed in Ireland, because Sir Dominic had power to prevent it, and would prevent it. The only way in which he could be converted was by Act of Parliament." Leaving on one side for the present, however, all question about Conjoint Boards for Scotland and Ireland, we must once more express a hope that a real one-portal system may yet be framed for England. We cannot but think that this may still be done voluntarily by the English Medical authorities, if, throwing aside all jealousies and personal feelings, they will, with real heartiness and singleness of purpose, desire it. Let them genuinely and with thoroughness adopt the motto suggested by Dr. Andrew Wood—*Possumus quia posse videmur*—and we more than suspect that the dreaded legal difficulties will vanish, or, if boldly braved, will turn out to be very tame or very safely chained lions. And, further, we will venture to suggest, for the consideration of the Apothecaries' Society, that if they suffer this imperfect Conjoint Board to be formed, their position will by no means be improved. Parliamentary action will then be sooner or later sought for, and when it does come the Society will stand quite alone. Even should the Society be able to prove indisputably the existence of legal barriers, which they had honestly and truly, though vainly, endeavoured to surmount, their position will have been gravely weakened, while, failing such proof, they will be open to the charge of having shown themselves averse to a necessary and urgent measure of reform.

As to other weak points in the scheme, besides the absence of the Apothecaries' Society, we spoke of some of them last week, and we will now again allude to only one of these—viz., the proposed Committee of Reference. This Committee is to be composed of sixteen representatives of Medicine and Surgery, to be appointed by the Royal Colleges and the Universities, and is to arrange and superintend the examinations, to determine the number of examiners to be assigned to each subject of examination, and to *nominate* the examiners; while the Medical authorities are to *appoint* the examiners on the nomination of the Committee. We confess that this appears to us a very cumbrous piece of machinery, and something not unlike an attempt to shirk responsibility altogether, or to throw it on an irresponsible body. The Committee will be able to say, we do not appoint the examiners, we only nominate them; while the Medical authorities will declare, we do not choose the examiners, we only appoint them on the nomination of the Committee; and each body will be tempted to hold itself free from, or to feel a dangerously lessened, responsibility. But we hope that the scheme may yet be greatly amended, as it has not yet been accepted by the Colleges.

As to the proceedings of the General Medical Council, we have nothing more to say now, except to congratulate them on their balance-sheet for 1870, which actually shows a surplus in their favour.

ON A NEW FORCE, FALSELY SO CALLED.

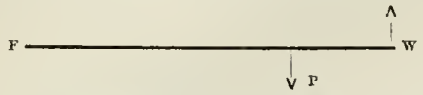
The current number of the *Quarterly Journal of Science* contains an article by the editor, W. Crookes, Esq., F.R.S., which has already given rise to a good deal of discussion, and to still more speculation. It is termed "Experimental Investigations of a New Force," and begins as follows:—"Twelve months ago in this journal I wrote an article in which, after expressing in the most emphatic manner my belief in the occurrence, under certain circumstances, of phenomena inexplicable by any known natural laws, I indicated several tests which men of science had a right to demand before giving credence to the genuineness of these phenomena." The tests suggested were the manifestations of this power in the now well-recognised equivalents of foot-pounds, and these tests the author has had an opportunity of carrying out for himself by means of the so-called medium, Mr. Home.

Before proceeding to an account of this inquiry, let us at once say that the force called a new force is not new, and that as ode force and animal magnetism it has already been investigated, although not perhaps in this very way, and the investigation has, further, been almost universally unsatisfactory. We may also premise, however, that Mr. Crookes is, both by nature and training, a man little inclined to assign supernatural origin to tangible effects; nevertheless, he has come to the conclusion cited above, or, to put it in words given elsewhere, "these experiments appear conclusively to establish the existence of a new force in some unknown manner connected with the human organisation, which for convenience may be called the 'Psychic Force.'" Unfortunately for any sense of security in these new beliefs, the author adds that "it has but seldom happened that a result obtained on one occasion could be subsequently confirmed and tested with apparatus specially contrived for the purpose." Anyone acquainted with the necessity of trying and trying again—that is, of varying the conditions—before coming to a final conclusion must regret this, if he desires to be a convert.

The two things chiefly tested were Mr. Home's power of diminishing the absolute weight of bodies, and of causing tunes to be played on an accordion so placed that its keys could not be reached. A basket was prepared and placed under a table, so that the hand could be barely introduced between its edge and the table; the other hand of the operator was placed on the table, and his feet held steady by two assistants. The accordion was taken by Mr. Home, his hand being placed under the table so that he held the part furthest from the keys, allowing these to hang down into the basket. After a time it began to move about in a curious manner; by-and-bye sounds were emitted; and ultimately it played a tune. We are not prepared to dispute the facts; still less are we prepared to admit Mr. Crookes' explanation—if explanation it be—to assign all these phenomena to the influence of a new force. But, for the moment, admitting the force, *who* played the tune, which it seems was both well known and simple? Was it the spirits, of which Mr. Home is supposed by some to be the medium, or was it Mr. Home? If the spirits, we fear their action is too irregular and too unsystematic to admit of anything that deserves the name of scientific inquiry. If Mr. Home himself, then surely Mr. Home and the spiritualists have some small difficulties to get over with regard to their public teaching.

The next experiment is, in every way, more satisfactory. A mahogany board, three feet long, was placed so that one end was leaning on a table, the other (the board being perfectly horizontal) attached to a spring balance. So placed, pressure on the end of the board resting on the table could but very slightly affect the index of the balance. When the apparatus was ready for experiment, the index showed the pressure of the board to be equivalent to a downward pull of 3 lbs. When, however, Home was seated (his hands and feet, as before, being carefully observed), with his fingers resting on

the extremity of the board supported by the table, the index descended to 6½ lbs., and on one occasion, according to a register, to 9 lbs., being an increase of the pull of the board by 3½ lbs. and 6 lbs. respectively. This apparatus was a rough form of lever No. 3—the power acting between the fulcrum and the weight. Did the power and fulcrum exactly correspond, there could be no manifestation of force beyond that of pressure on the fulcrum—that is, on the table. It is plain,



therefore, that the question resolves itself into two parts—the spot where the power was applied, and the degree of that power. Close to the fulcrum much force would be necessary to produce such results; close to the weight, *i.e.*, the balance, only a little more than the 6½ lbs. or 9 lbs. indicated by the balance itself. It is stated that Mr. Home's fingers never extended beyond the fulcrum. In this position, then, the power exerted by them would be *nil;* and if they were applied to the innermost verge of the board, then force would, if acting at all, manifest itself in a contrary direction—that is, as diminishing the weight of the board.

These are the experiments detailed in the article referred to. Others, of course, have been made, and from their totality Mr. Crookes deduces the existence of this *new* force; but whether the force be new or old is, perhaps, beside the question; at all events, the results seem to be distinctly contrary to teaching and experience. The powers of nature act, as far as we know, in accordance with certain laws, and these results seem to be (we do not say, are) different from those to be expected did these laws hold true—in other words, we have a miracle. But miracles were not wont, in olden times, to be manifested by the playing of tunes on accordions, or trifling with the laws of gravitation. For our own part, we should prefer to disbelieve the evidence of our senses than believe that these displays were miracles, in any sense of the word. We do not dispute the facts, any more than we dispute the facts put before our eyes by an Indian fakir or Western juggler. In either instance the utmost care has been taken to elicit the truth—in the case of the jugglers, generally with success, the trick being usually detected; but this is a problem we have not yet solved. Undoubtedly, the playing of an accordion and the depression of a spring balance imply the manifestation of force; but of a *new* force, no; that is a totally different thing. For our own part, we still prefer to hold to the doctrine that force is one and indestructible. It is true these results may be due to a mode of its manifestation whose laws are not yet known to us; but even this we do not admit. Meantime, at all events, we shall not speak of this as a *new force* in any sense of the words.

Since writing the above, a copy of the *Spiritualist* has fallen into our hands. This contains some details of other experiments conducted by Mr. Crookes with the further purpose of testing the nature of Mr. Home's powers. A vessel containing water was placed on the fulcrum, and another floated in it was touched by Mr. Home, so that no direct pressure could be brought to bear by Mr. Home's hands on the lever. In this instance, movements of the spring balance were registered, but they were not so powerful as when the fingers were applied directly to the lever. Similar experiments have been tried in America. Nevertheless, we need hardly say we are not convinced. Why, we repeat, are these powers limited to playing an accordion and diminishing gravity? Some other manifestation would be acceptable.

THE RECENT ELECTIONS AT THE ROYAL COLLEGE OF SURGEONS.

Mr. Busk's election to the Presidential Chair of the Royal College of Surgeons last week will, we believe, meet the general approval of those interested in the welfare of the College. The retiring President, Sir William Fergusson, has done excellent service during his tenure of office, and retires according to well-established precedent, with the thanks and best wishes of the Council and Fellows. Mr. Busk, although less known in the public walks of the Profession, has a very high reputation as a cultivator of its fundamental sciences, and has proved himself a valuable and painstaking Member of the Council. We congratulate both Mr. Busk and the College on his election.

The result of the elections on the 6th inst. must also be considered to be in every respect most satisfactory. The four gentlemen elected are worthy representatives of British Surgery, and amply deserve the support which was given to them by the Fellows—a body well able to form an estimate of their character and position. We had previously expressed our opinion that Mr. Wells's return was a matter of certainty, and, although unconnected with any of the large Hospitals, his position and services to the cause of Surgery carried him to the head of the poll. Mr. Critchett followed close upon Mr. Wells, and his success on the first occasion of his going to the poll is sufficient evidence of the great popularity which this eminent ophthalmic Surgeon enjoys and fully deserves. Mr. Le Gros Clark's character as an accomplished Surgeon and high-minded gentleman could not fail to secure him his re-election, and we may trust he will retain his seat on the Council until he enjoys all the honours afforded by the College.

The strenuous attempts made to prevent the re-election of Mr. Busk entirely failed. The weight of high character and scientific eminence preponderated, and, notwithstanding the absence of any Hospital connexion to back him, just as in the case of Mr. Wells, he went ahead of that very popular candidate and well-known Hospital Surgeon Mr. Barnard Holt, who secured a sufficient number of votes to show that his next attempt will be attended with a triumphant success. We confess that we are not surprised at Mr. Cock's failure, and we reiterate our opinion that it is a great pity that this amiable gentleman and excellent Surgeon should have been allowed by his friends to come forward after he has enjoyed all the honours which the College can bestow. Something, however, may be learned by mistakes, and the fact of his having obtained thirty votes less than those gained by the unsuccessful one of the new candidates ought to convince past Presidents that similar attempts to regain power will probably be attended with similar results.

We heartily congratulate the new Members of Council, and the Fellows on the manner in which they have exercised their choice.

THE CENSUS OF 1871.

The preliminary report of the Registrar-General and his colleagues on the Census of 1871, taken on April 3, although referring more particularly to England and Wales, contains a summary of the population of Scotland, Ireland, and the islands in the British seas, and thus embraces the whole United Kingdom. The Census of Ireland was entrusted to a Royal Commission, that of Scotland to the Registrar-General of Scotland, and the population of the islands in the British seas was enumerated under the supervision of the respective Governors. The population of the United Kingdom on the Census day was 31,817,108, the number of males being 15,549,271, and of females 16,267,837, showing a preponderance of the latter amounting to 718,566. In all official returns it is usual to employ the population in the middle of the year as the standard on which the rates of births, deaths, marriages, and other facts are compared; and the population of the United Kingdom, so calculated, and including the inhabitants of the islands in the British seas, and the army, navy, and merchant

seamen abroad in the three Census years, 1851, 1861, and 1871, was as follows :—

Middle of Years.	Persons.	Males.	Females.
1851 . .	27,764,034	13,656,998	14,107,036
1861 . .	29,358,927	14,397,427	14,961,500
1871 . .	31,883,564	15,581,093	16,302,471

The decennial increase during the two periods was as follows :—

	Persons.	Males.	Females.
1851-61 .	1,594,893	740,429	854,464
1861-71 .	2,524,637	1,183,666	1,340,971

The decennial rates of increase (per cent.) were :—

	Persons.	Males.	Females.
1851-61 . . .	5·74	5·42	6·06
1861-71 . . .	8·60	8·22	8·96

The annual rates of increase (per cent.) were :—

	Persons.	Males.	Females.
1851-61 . . .	·56	·53	·59
1861-71 . . .	·83	·79	·86

It is thus seen how much faster the population of the United Kingdom has increased since 1861 than it did during the previous decenniad. The total increase of her Majesty's subjects in the United Kingdom since her accession has been 5,900,000 ; and this, as the Registrar-General remarks, has been caused, not by the seizure of neighbouring territories, but mainly by the enterprise, industry, and virtue of her people.

On the proportion of the sexes in the United Kingdom it is remarked that the number of women and girls exceeded the men and boys at home by 925,764 ; after adding the soldiers and sailors abroad to the men and boys at home the excess of females is 718,566.

This preponderance of females at home is, however, probably counterbalanced by their scarcity abroad in 1871, as it was in 1861, it having been shown that during the latter year the excess of males in our own colonies amounted to 317,899, and in the United States to 735,429, giving a total of 1,053,328.

We acquit the Registrar-General of even the intention of a pun, when he remarks, on this subject, that those who seek to extend the sphere of *labour* for women will find, therefore, in Australia and America a most fruitful field for such of the sex as are willing to play a part in the foundation of the great States of the future! But the fact of the compensating disparity of the sexes abroad remains for the consideration of those who are endeavouring to find employment for women at home in occupations and professions in which they must encounter the competition of men.

The annual rate of increase of population of the United Kingdom between 1861 and 1871 was ·828 per cent. per annum, and at this rate the population would double itself in eighty-four years. Its natural increase is 1,173 a day, of whom 705 swell the home population and 468 emigrate. In the last twenty years the nation has added four millions to its numbers, and during the same period has sent out nearly as many more to the British Colonies and United States, where they are multiplying as rapidly as they did at home.

The enumerated population of England and Wales was 22,704,108 souls. This is an increase of 2,637,884 over the numbers living at the last Census, and exceeds the expected amount. It is at the rate of 1·24 per cent. per annum, or 13 per cent. in the ten years ; and should this rate continue the population will double itself in fifty-six years. The rate of increase during the preceding ten years was equivalent to 12 per cent. per annum. The rate of increase of population is the difference between the birth-rate and the mortality—thus, when to 1,000 living 35 are born, and 22 die annually, the rate of natural increase is 13, and the birth-rate remaining constant, this rate of increase varies as the rate of mortality rises above or falls below 22 ; so if the rate of mortality remain constant, the rate of increase varies as the birth-rate rises above or falls below 35. The birth-rate is necessarily limited by human fertility, but there is no limit to which it may not be reduced ; on the other hand, the death-rate cannot be diminished below a certain figure, but may be raised to an indefinite extent. The increase of population in geometrical progression is maintained nearly all over Europe, but in one country it has been kept in check by a decrease in the birth-rate, effected, not by the restraint from marriage, called by Malthus "moral restraint," but by restraint of some other kind, to which, the Registrar-General observes, the qualifying adjective scarcely applies. In France the marriages have been kept up, but the average births to a marriage have been reduced to 3·1 ; the birth-rate in the last return (1853-68) is 26·35, which only exceeds the death-rate, 23·72, by 2·63 per 1000. The natural annual increase was barely ·26 per cent. In England the children born in wedlock to a marriage are 4·3 ; the birth-rate is sustained at 35, and the mortality-rate at 23 per 1000. The difference, 12 per 1000, or 1·2 per cent., shows a natural annual increase nearly five times greater than that in France.

We have in the present notice given only a few of the facts and statements advanced by the Registrar-General. We shall conclude the analysis of the report in a future number.

THE WEEK.

TOPICS OF THE DAY.

The Medical evidence in the recent trial for manslaughter was, we think, invested with undue importance both by the prosecution and the defence. If it were admitted—which it was freely by the latter—that the case was not one of suicide, but of homicide, it was clearly impossible, on any purely anatomical or Medical grounds, to absolutely assert or deny the truth of the theory set up on either side. From the mere post-mortem examination of the extent, direction, and character of the wound, no absolutely reliable data could be furnished for the unqualified assertion of either of the following propositions :—First, that the wound was the result of a wilful and determined stab delivered in the heat of passion by Mrs. Davy ; or, secondly, that the wound was, if not accidental, at least unintentionally produced in some rapid movement in a struggle between herself and Mr. Moon, he having threatened her with a decanter, and she having snatched up a knife to defend herself. We maintain that, in the case of a wound such as that described in the evidence—a wound entering the antero-lateral surface of the left chest, between the sixth and seventh ribs, having an inward course of five inches, and piercing the pericardium and left ventricle of the heart—whatever may be the probability of the case, no post-mortem examination could decide whether that wound was produced by an aggressive act or by some unpremeditated and unintentional movement in a struggle with an aggressor. Whilst, however, we say this, we would also say that we perfectly agree with the finding of the jury, and entertain no reasonable doubt that the theory of the prosecution was the true one. But our opinion, as also doubtless was that of the jury, is influenced by the facts in evidence as to the antecedents of Mrs. Davy, her ungovernable temper, and her previous threats to take away Mr. Moon's life. The evidence given by Mr. Savory and Mr. Morant Baker derived all its weight from these circumstances, and without them it could only have established a degree of probability which falls far short of certainty. On the other hand, we cannot agree with the witnesses for the defence in the opinion they are said to have expressed, "that it was more probable that the wound resulted from an accident." On the contrary, we think the weight of probability, even as far as the evidence from the post-mortem examination went, was decidedly on the other side ; but that it was possible that in a struggle for the possession of the knife the deceased might have accidentally received the wound or have fallen on the knife was demonstrated in court by Mr. Canton, and proved by Mr. Haynes Walton, who quoted a parallel case which had been treated at St. Mary's Hospital.

The evidence might have been sufficient—inasmuch as it established *possibility*—to have procured the prisoner's acquittal, had her antecedents been of another character.

The acquittal of the young man Edmund Walter Pook for the murder of Jane Maria Clousen, in Kidbrooke-lane, Eltham, has given universal satisfaction. No evidence was adduced which even connected the prisoner with the deed. The Medical evidence given by Dr. Letheby, as to the presence of some spots of blood on some clothes of the prisoner's, was just what Medical evidence should be—clear, scientific, and, above all, the statement of a witness, not of an advocate. It completely established the existence of some spots of blood on the prisoner's dress, but these were amply accounted for by the facts that he had cut his wrist, that he had bound up the wound of a lad who had been injured by machinery, and that he was the subject of epileptic fits, in which he frequently bit his tongue. But tolerably conclusive evidence was given that he was not near the place of the murder on the night in question, and there was not the slightest proof that he had any intimacy or connexion with the deceased. The case will be remembered, however, as a lasting disgrace to the police force. The way in which the police officers, by false statements, endeavoured to entrap the accused into admissions which would support their theory of his guilt, the unscrupulous way in which they suppressed the fact of a bloodstained duster having been found near the spot where the murder was committed because they could not connect the duster in any way with the accused, and the mode in which they hunted up and brought forward testimony of the most worthless character to support their theory of Pook's guilt will not be readily forgotten. The indignation expressed by the prisoner's counsel, the repudiation of the conduct of the police by the Solicitor-General, and the grave rebuke conveyed by the summing up of the Lord Chief Justice, express, in no exaggerated degree, the impression left by the case on the public mind.

A girl, Agnes Norman, aged 15, has been found guilty of attempting to murder a boy of 10 by endeavouring to strangle him during his sleep. The jury recommended her to mercy on account of her youth. There were several other indictments of murder against the prisoner, for wherever she went as a nurserymaid the children died unaccountably. Previously, indeed, to her conviction she had been acquitted, on the ground of insufficient evidence, of the murder of a baby of whom she had the care, who had died under most suspicious circumstances. The sentence on the prisoner is postponed until next session, in order that full opportunity may be given for a consideration of the case. The girl seemed utterly unconcerned during the trial. Surely this is a case in which a Medical commission should be empowered to inquire into her mental condition.

The herbalist, De Baddeley, and his wife, advertised as "the celebrated clairvoyante," have been found guilty and sentenced to twelve months' hard labour for unlawfully supplying a certain noxious drug—namely, ergot of rye—knowing that it was intended to procure abortion. The justice of the sentence is undoubted; but we would only remark that the proceedings of the police for the purpose of establishing the case were of a similar kind to those which in a recent trial brought down public censure upon a Medical man who simply acted under their direction. They obtained evidence against the prisoners by employing a witness to make false representations, and paid her for so doing. Does our law sanction this, even for the punishment of undoubted criminals? Surely the tactics of Jonathan Wild and of the French police are not the models to be imitated by Scotland-yard.

Mr. Gladstone, in announcing that it was the intention of the Government to withdraw the Pharmacy Act Amendment Bill, gave as a reason that the Bill could not be proceeded with without a great deal of discussion. We should think not, seeing that the Bill, as amended by Mr. Forster, would have placed all Surgeons having open surgeries under the control of the Council of the Pharmaceutical Society.

The deputations which waited on Mr. Stansfeld on Tuesday last, from the Society for Organising Charitable Relief, the Poor-law Medical Officers' Association, and the Metropolitan Branch of the British Medical Association, obtained from that gentleman, in answer to their representations as to the pauperising effect of indiscriminate Medical charity, the assurance that the Poor-law Board was proceeding to urge forward the dispensary system in towns, under the Act of 1867; and he said that "even in the country, where the Board had no power of enforcing its views on this point as yet, the system was being adopted by Guardians, whom he had found generally willing to take advice." We are glad Mr. Stansfeld finds Boards of Guardians so tractable. His experience on this point, we think, is scarcely in accordance with that of his predecessors. He, however, told the deputation frankly that the Poor-law Board could not interfere with institutions supported by voluntary contributions, and he warned them against the over-ruling and over-governing inherent to a centralised system. With regard to provident dispensaries, he said it must be for the public, and not the Government, to establish them.

The lecturers of the Royal College of Surgeons have resolved no longer to admit female Medical students to their public classes. The female Medical movement in Edinburgh seems in a languishing condition.

We are informed that Mr. Reginald Stocker, M.B. Lond., has been elected Medical Tutor at St. Mary's Hospital Medical School. We believe there were eight candidates for the appointment.

REPORT OF THE ROYAL COMMISSION ON THE CONTAGIOUS DISEASES ACTS.

We hope next week to lay a full abstract of this very able report before our readers, and have only space just now to remark that a daily contemporary, who has from time to time lent its columns to some of the most noisy opponents of the Acts, now urges upon the Government their immediate and absolute repeal, on the ground that the evidence has established their failure. So far from this being the general tenor of the report, we can assure our readers that the Commission has fully recognised the benefits already attained by the Acts, and admits that special regulations for the treatment and control of prostitutes likely to engender and propagate disease are alike just and expedient. The Commission advises the repeal of the Acts of 1866 and 1869, enforcing the periodical inspection of women, and not only maintains the Act of 1864, but advises its extension to certain parts of the metropolis, and to any other towns and districts the authorities of which may apply for the necessary powers and may establish Lock Hospitals. In addition to the extension of the Act of 1864, the Commission advises several measures by which prostitutes and the keepers of houses in which they live are put under strict police supervision.

The Commission also states that the result of their inquiries has been to satisfy them that the police are not chargeable with any abuse of their authority, and that they have hitherto discharged their novel and difficult duties with moderation and ability. So much for the sensational charges brought against the police by the opponents of the legislative control of prostitutes.

THE WINNER OF THE QUEEN'S PRIZE.

The winner of the great prize this year at Wimbledon—the Queen's Prize—is, if not a member of our own Profession, at all events intimately connected with it. The great object of shooters' ambition has been carried off by Ensign Humphry, Cambridge University. He is a son of the distinguished Professor of Anatomy in the University, and is only 19 years of age. We congratulate both father and son on the honour so honourably obtained.

WIMBLEDON CAMP.

The health of the camp continues extremely good. Very little diarrhœa has occurred, and the accidents have been limited to a few cut hands and sprains, and two cases of slight wounds from splashes of lead at the targets. A Cheshire officer has suffered slightly from sunstroke. Among the visitors to the Hospital have been the Home Secretary, Lord Sandhurst, and others. The Medical officers in charge are Dr. Temple, V.C., Staff Assistant-Surgeon, for the regulars; and Dr. Mayo, Inns of Court R. V., for the volunteers. Surgeon-Major Wyatt, of the Coldstream Guards, is not in residence at the camp this year, but acts as Consulting Surgeon. The earth system of latrines has worked well, notwithstanding the wet weather, except in one case, where one of the surface-drains of the common gave way, and flooded the pit. The injury was quickly repaired. Two ambulance-waggons from Paris have been exhibited for some days in the camp, one intended for four and the other for five patients; but there is nothing in their construction to call for special remark. They are ordinary four-wheeled waggons, such as the ingenuity of any carriage-builder could devise. They have no new provision for the prevention of jolting, which is the great desideratum. A simple and ingenious spring frame for the support of stretchers on the floor of railway-waggons, the invention of the Comte de Beaufort, is well worthy of attention.

ARMY MEDICAL DEPARTMENT.

Mr. Stacpoole having, on May 17, 1871, moved an address calling for a return of the officers of the Army Medical Department who are now employed in the office of the Director-General, specifying name, rank, and capacity in which these are employed, with the periods from which and to which they have been so employed, as well as a copy of orders or letters which prescribe any assigned period for the employment of military officers at the War Office or Horse Guards, a return containing the following information was laid before the House on June 20:—

"Deputy Inspector-General F. G. Balfour, head of Statistical Branch, from July, 1859, till present date; Deputy Inspector-General H. H. Massy, head of Sanitary Branch, from April, 1867, till present date; Deputy Inspector-General T. Crawford, head of Medical Branch, from February, 1865, till present date; Staff Surgeon T. G. Fitzgerald, Inspecting and Superintending issue of Medical and Surgical supplies, examination of Medical bills, and general Professional duties, boards, etc., from April, 1859, till present date; Staff Surgeon L. Kidd, assistant in Statistical Branch, and general Professional duties, boards, etc., from March, 1867, till present date; Staff Surgeon J. A. Marston, assistant in Sanitary Branch, and general Professional duties, boards, etc., from April, 1867, till present date.

"It has been decided that the office of Director-General shall be tenable for seven years. No period of tenure has been fixed for the other appointments, which are not staff but special appointments. "Edward Lugard.

"*Article* 115 *of the Pay Warrant of December* 27, 1870.

"All staff appointments, except those of officers on our personal staff, of our Commander-in-Chief, and of officers on his personal staff, shall be held for five years only, unless the officers shall be re-appointed under special circumstances. Service on the General's personal staff shall reckon as full-pay service.

"*Article* 417 *of the Pay Warrant of December* 27, 1870.

"The duties of the various departments shall be superintended and directed by the heads of such departments, who shall act under the orders of our Secretary of State. The rate of pay of the heads of the various departments of our army shall be fixed from time to time by our Secretary of State, and the appointments shall be held for five years only, subject to renewal in the event of our Secretary of State considering it beneficial for the public service.—July 19, 1871."

CHOLERA IN POLAND.

Asiatic cholera has broken out in Poland, and at Wilna the deaths for the last month have been ten per day.

ST. MARY'S HOSPITAL MEDICAL SCHOOL.

A portion of the share of students' fees which we stated a short time ago had been relinquished by the governors of St. Mary's Hospital for the benefit of the Medical School, has been devoted to the foundation of three scholarships in natural science, each of the annual value of £40, and tenable for three years. The first of these, and also an exhibition in natural science of the value of £20, will be awarded in September next, by open competitive examination. Scholarships of this kind afford very valuable encouragement to the acquisition of a fair knowledge of natural science by the student previous to his entry at a Medical School.

WEST LONDON HOSPITAL.

The Duke of Devonshire, on Saturday, placed the memorial stone of the east wing and central building of the West London Hospital. In the three wards constituting the present building, accommodation is provided for forty-two beds. The address presented to the Duke stated that the number of in-patients during 1870 was 269, whilst the out-patients, who in 1869 were a little more than 13,000, were last year over 20,000. Nearly 8,000 visits have been paid in twelve months by the House-Surgeons; and this had taxed the efforts of the resident Medical officers to the utmost. During 1870, the attendance in the out-patients' rooms reached the enormous number of 61,304.

TESTIMONIAL TO DR. JOHNSTON, MONTROSE.

It is at all times satisfactory to our Profession to know that their labours, if not always so amply rewarded with this world's goods as might be desired, do, nevertheless, find a way to men's hearts, such as do few others. Marks of public esteem bestowed upon one member of the Profession, therefore, may in a certain fashion be appropriated by all, inasmuch as in him the Profession as a whole is honoured. No more satisfactory testimonies of public approbation have of late been given or received than one presented to Dr. Johnston, of Montrose, on the occasion of his retirement from private practice. After a hard-spent life of labour, Dr. Johnston has been able to retire from his Professional duties while yet in the enjoyment of a full measure of health and strength. A committee, most influentially constituted, was promptly formed, and a large sum of money was speedily collected. Subscriptions were only received from personal friends, otherwise the sum ultimately obtained would have been very much greater. Nevertheless, enough was received to provide a handsome dessert service in silver, which was presented to the Dr. and Mrs. Johnston in the Guildhall of the town. We cordially join in the hearty congratulations presented to them on the occasion.

SMALL-POX AT CHORLTON.

Last week there were fifty-seven small-pox patients in the Union Hospital, an increase of ten on the previous week. Mr. Clements, the Medical Officer, said that no less than forty-six patients suffering from small-pox had been admitted during the month, a number far in excess of any previously recorded. The disease appeared to be gradually spreading over the various townships of the union, but by far the greater number of patients had been furnished by Hulme, other localities contributing in a less degree to the total.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.

At a quarterly court of directors, held July 12, Dr. Burrows (President) in the chair, grants to the amount of £1278 10s. were made to fifty-five widows and forty-five children. Two widows and three children were added to the list. The death of one recipient of grants was announced. Two members were elected, and five proposed for election at next court, to be held in October.

YELLOW FEVER IN BUENOS AYRES.

We are now in receipt of such further details from Buenos Ayres as may serve to supplement our article published on May 20, which brought us down no later than March 8. The deadly plague in that city, which is certainly one of the most striking events of our time, no less calculated to impress the understanding than the ruin of Mendoza by earthquake, or the fatal collapse of Paris under pressure of fire and sword, will no doubt supply materials for further deductions and argument in Medical science and history. Who, indeed, could have foreseen so entire a devastation? what mind could have anticipated so complete a fulfilment of Medical prognostics as opposed to the rude instincts of society? No lesser warning, perhaps, would be available for the education of the popular mind, ever prone to be led away by sophisms that are convenient to immediate profit, and flattering to the purpose in hand. A ready ear is yielded to false counsel, the most healthful axioms are perverted, and thus, in a critical hour, in the place of knowledge we find doubt; instead of decision, there is confusion. Thus, while the pestilence was at its very height—nay, on the very day that is confessed to have been its worst—a member of our honourable Profession came forward to insist that there was no yellow fever in the city, that only ordinary causes were in operation, that only "where the pine-apple grows does this fever strike its tooth." Nay, so far did folly go, that the waters of the Riachuelo, the common Fleet of the town, were commended by one gentleman as sanative. Part interest, part irrationality, such as no process of sifting invented as yet can exclude from sharing in Professional counsel; in all trying circumstances of life there is always more or less of this to contend with. The Medical press, admirable in most respects, seems not wholly purged from such alloy, for in the early days of the pestilence, while allowing its presence to be indisputable, it was content to attribute the existence of the yellow fever to the "special pathological constitution, to the defective hygiene of the domiciles, and the high temperature then prevailing." In fact, nothing could be more sure than its invasion. Its previous existence in Paraguay (whence, also, the cholera had reached Buenos Ayres), its march through Corrientes, which it depopulated, the unimpeded communication with infected districts—made its coming more than probable, its arrival beyond a mistake. This happened at the beginning of February, or, rather, towards the close of the previous month, infecting first a single quarter—San Telmo. In this taxation of our brethren, which, to be of utility, must be of necessity unsparing, we must not omit a point of some nicety, in which Medical opinion was undoubtedly concerned. We allude to a municipal decree, given in the early days of the pestilence, for all persons attacked in the infected quarter to proceed forthwith, or be conveyed, to the lazaret. Cruel and against right as it appeared, on its first promulgation, the order roused up a large amount of protest from the bosom of the Faculty, who very correctly indicated localisation as the first and most reliable of resources in dealing with any contagion. The order was rescinded after three days under pressure of such ideas. At a later date, however, a degree of reaction occurred, and it was allowed that over a limited area, such as that of the town and suburbs, the action taken had been pernicious. How shall we stigmatise properly the delay of a fortnight which was given to the slaughter-house interest, the *saladeros*, to close their works which spread destruction through the city? It has even been affirmed that they tripled their operations in the time allowed, so as to make good the threatened deficiency in their stock. One sees here the subjugation of public health to material interests, which is only too exuberant in our age. "The society of hogs," says a witty Spanish author, "is never particularly acceptable—no, not even if one were in hell." But sure enough it is, there are always plenty to plead for them, to resent the least infringement of their rights. A moot point was the irrigation of the streets, insisted on by the authorities as preservative, objected to by others as diffusive of the plague and as stimulating it. It will be consoling to those who have sent their alms to the city that there was need of them—for charity has unaccountably received a chill, with some notable exceptions, in which a truly Castilian munificence was apparent. We cannot approve the ready acceptance of theatrical representations on behalf of the indigent by the ruling powers. In time of pestilence the theatre, and even the church gatherings, may be with better judgment avoided. There remains to be noticed one more precaution, the importance of which is insisted on by the press as the chief, or, at least, one of the most principal measures taken for relief of the town. This is the suppression or clearing out of the minor conventual establishments (*conventillos*). Not to delay in describing them, they may be particularised as foci of filth and nastiness. Of these, more than 400 are said to have existed in Buenos Ayres—no less than ninety-three in a single parish. They were notorious centres of infection. It was in the middle of April that their speedy evacuation was resolved on. It now remains for us to mention the names of thirteen members of the Medical Profession who have fallen victims to the epidemic in its later stage. These are as follows:—Drs. Bosch, French, Lucena, Molina, Amoedo, Muñiz, Gil Mendez, Argerich, Riva, Ruiz Moreno, Señorans, Zapiola, and Pietra Nera. The dead are no longer carried in coaches, but by rail, to a new cemetery away from the town. Among the mortuary returns astonishingly few English names appear. In a list of 293 in the middle of April, only four or five names of British nationality occur, and these are wretchedly disguised, as Diego Lenci, Riccardo Arosi (? Harris), aged 52; Carlos Kedeli, aged 35; Miguel Nelando, aged 34; Maria Dalpe, aged 31 (Irish). The dimensione of the plague, its course, and other points of interest concerning it, may probably occupy us later. At present we have been more earnest to lay before the reader grounds of general conclusion and argument deducible from these data than the facts which have led up to them, which are of a more local character and touch us far less nearly.

A RELIC OF BARBARISM.

We observe that on the 13th inst., before Mr. Justice Lush, at the Oxford Assizes, Rachel Busby, indicted for the wilful murder of her child, at Little Barford, near Banbury, by drowning it in a pool near the cottage where she lived, pleaded guilty, and was sentenced to death. In answer to a question, she stated that she was *enceinte*, and a jury of matrons being empannelled, they confirmed her statement. The convicted woman was then removed to the county gaol, and has since been respited. It may have been all very well in dark and mediæval times to have taken a jury of matrons into consultation on such a point; but in the present advanced state of Medical knowledge, it is an amazing anomaly to have recourse to such means of arriving at a diagnosis in a matter on which the Surgeon of the gaol could have given a much more reliable opinion. The inconsistency of publishing modern books in black-letter manuscript, in preference to using the steam printing-press, would not be more absurd. Nevertheless, this still remains the legal method of determining the question.

HEALTH OF ST. MARYLEBONE.

During the second quarter of the present year, which terminated on the 1st inst., the number of deaths registered in the parish of St. Marylebone was 883, of which 408 were males, and 475 females. The deaths during the quarter were 149 less than in the first quarter of the year, and 143 less than in the corresponding quarter of 1870. It would appear that, notwithstanding the ravages of the small-pox, the mortality of St. Marylebone during the last three months has been unusually low.

THE LIQUOR LAW IN MASSACHUSETTS.

In a lecture on America, delivered on June 12 last in the theatre of the School of Mines, Mr. Thomas Hughes, M.P., gave some information as to what he saw of the liquor traffic question in Massachusetts. Mr. Dalrymple's Bill, proposing legislative interference for the treatment of habitual drunkards in this country, having been withdrawn with a view to the whole matter being investigated by a Royal Commission, Mr. Hughes' sketch of the arrangements at work in that State is most interesting at the present time. We learn that a State Commissioner for the purchase and sale of intoxicating liquors is appointed annually. He is only allowed to sell to regularly appointed agents, and to no other persons. All liquors thus sold are analysed by one of the State Assayers, and the Commissioner can sell none which is not certified by the assayer to be pure. Five agents only are allowed for the whole city of Boston. These are salaried officers, and are allowed to sell only pure liquors, and that, too, at the lowest cash prices. The agents employed by the governing bodies of cities and towns are also paid officers, and are compelled, under heavy penalties, to purchase only of the State Commissioner. The manufacture or sale of intoxicating liquors, except by authorised agents, is unlawful, and subject to heavy penalties. This law is not allowed to remain a dead letter. The State regulations so far are of general application, and their maintenance, as everybody's business, might become lax, or even fall into desuetude, were they not supplemented and rendered more effectual by the power further conferred upon individuals of entirely prohibiting the sale of intoxicating liquors to persons of habitually intemperate habits. It is provided that the husband, wife, parent, guardian, or employer of any person in the habit of drinking to excess may serve notices in writing on sellers not to deliver liquor to the drunkard. If such notice be disregarded within twelve months, an action may lie against the seller for damages not exceeding $500. Married women may bring such actions, and recover the damages to their separate use. Drunken people may be arrested without warrant, but are discharged on disclosing the name and address of the person who sold the liquor. The rules against the sale of liquors, except according to law, are very stringent. The means of putting them into operation are simple and easily worked, and the penalties are severe. Though not entitled to speak as to the results of this law from personal experience, Mr. Hughes could say that he did not see a single drunken person in New England. The points in the above-detailed system which appear to us to deserve most serious consideration as to their applicability to the liquor trade of this country are—the wholesale trade in liquors being only permitted through a Government agent; the means taken to secure the purity of all liquors sold, both wholesale and retail; and, lastly, the power conferred upon individuals of prohibiting the sale of liquors to habitual drunkards.

PHTHISIS IN MELBOURNE.

The discussion as to the relative prevalence of phthisis in Victoria has been carried on with considerable acrimony. It is to be hoped that the question may be solved in some definite manner. The following is from the *Australian Medical Gazette*:—

"We understand that an application will shortly be made in Parliament, on behalf of Dr. Thomson, for a return of all the deaths from phthisis in the whole of Victoria from 1865 to June 30, 1870—the period for which phthisis statistics have already been compiled for the Melbourne district. We hope that, in view of the great interest and importance of the subject in a national as well as a social and economic point of view, the Government will not only refrain from offering any opposition, but that they will afford every facility for the preparation of the required return. The accuracy of Dr. Thomson's statements respecting the frequency of consumption in this colony has recently received strong confirmation from a disinterested and unexpected source. We are informed that a life insurance company in this city has lately tabulated the causes of death amongst those insured in its office for a number of years. The result of the investigation showed that about one-third of the deaths among the insured were occasioned by phthisis."

CURE OF SNAKE-BITE.

Dr. Hill reports in the *New South Wales Medical Gazette* a case in which a woman was bitten on the forearm by a large black snake. Ammonia and brandy were administered, and the bitten part excised soon after the bite was inflicted. After a time drowsiness and vomiting set in. The woman made a good recovery.

A GOOD EXAMPLE.

The patients of the Royal Free Hospital were on Tuesday evening last invited to an entertainment in the theatre of the Hospital. Readings, recitations, and songs afforded much amusement to the audience.

AMERICAN PHYSICIANS.

On April 30 last there were 49,798 "Physicians" in the United States. Of these, 39,070 were allopathic, 2961 homœopathic, 2860 electric, 133 hydropathic, and 4770 miscellaneous and not classified.

FROM ABROAD.—THE GASES OF PUS—THE SAVANTS OF FRANCE AND GERMANY.

Professor Mathieu, of the Val-de-Grâce Hospital (which, we may mention, the Government are about to discontinue as a Military Medical School), has recently (*Gaz. Hebd.*, July 14) published the results of some investigations which he has been engaged in concerning the gases of pus. Among those which have been extracted is hydrogen, in sufficient quantity to produce the characteristic sound in its burning, even when only a few cubic centimètres of the pus have been operated upon. Besides this, pus contains carbonic acid, a small quantity of nitrogen, and some traces of sulphuretted hydrogen, but never any oxygen. After specifying the results of several analyses of pus derived from various sources, M. Mathieu says—

"The following is the conclusion to be drawn from these analyses:—The products of suppuration have such an affinity for oxygen that they decompose organic substances in order to assimilate this gas, and to set at liberty carbonic acid and an excess of hydrogen. Our researches have been extended to pus which has not come into contact with air, and to pus which has been exposed for a more or less long period to free air. As a consequence of such comparative experiments, it results that the pus of itself can undergo decomposition, for if it be kept external to the body the quantity of hydrogen and carbonic acid may become increased twofold. The pus of glandular abscesses contains a much smaller proportion of carbonic acid than that derived from other sources, but it contains a sensible quantity of hydrogen. Pus of pyæmic subjects contains a very large quantity of gas, indicating the operation of energetic elements of disorganisation. The toxical properties of pus, supposing that they are dependent upon the phenomenon of oxidation, are thus very variable; but I have never yet met with any, even when it has been collected free from the contact of air, which has not contained hydrogen, and which was, therefore, capable of producing decomposition of the animal matters which enter into its composition. Analyses of gases of the blood exhibit no traces of hydrogen. As complementary to these analyses of the gases of pus, I have performed other experiments consisting in the retention of a given quantity of purulent liquid in contact with a determined volume of air. When the temperature of this liquid is raised to the equivalent of that of a wound, an amount of oxygen disappears in two or three hours, which it would require three or four days to effect at the ordinary temperature. Heat is, therefore, a primary element in the production of the change in pus. Agitation of the air is a second cause of speedy decomposition of the pus; for while, after being kept in a state of quietude for three hours, the absorption was but 2·95cc., it was 3·22cc. after only two hours, when the liquid had been subjected to a momentary agitation. The change is effected

still more rapidly if a little dried purulent matter be added to the liquid, the proportion of oxygen absorbed by pus so contaminated being almost double the quantity derived from the same source, and kept the same time, but without receiving such addition. The addition of a putrid liquid also accelerates the absorption of oxygen by a purulent liquid, but in a less proportion. Dried pus, therefore, plays the part of a ferment in landable pus. . . . . Pus, and especially pus which has undergone alteration, is certainly a cause of mortality after traumatic lesions; and as dried purulent dust has thus been shown to render the alteration of pus much more rapid, we can understand the danger of overcrowding and insufficient ventilation of wards containing wounded persons. The above experiments also explain the utility of cold applications to wounds in a state of suppuration, and the necessity of immovability during the treatment of wounds of the joints or bones treated conservatively.

"When a powerfully smelling pus is distilled at a mean temperature of 45° C., which is possible by means of the mercurial pump, a fetid and very alkaline liquid is obtained. My assistant has shown that this alkalinity is due to ammoniacal salts (the carbonate and sulpho-hydrate), and he has also been enabled to separate by ether a small quantity of volatile oil, to which pus about to become decomposed certainly owes its odour. Believing that this liquid might be endowed with deleterious properties, I injected it into the trachea and cellular tissue, but without giving rise to any serious accidents. These facts corroborate the theory held by Professor Verneuil, which attributes to a fixed substance all the phenomena of septicæmia. The volatile products of pus would never prove a cause of poisoning or of propagating putrid infection to a distance. This, indeed, might be deduced *à priori*, as purulent infection never takes on the epidemic form except in subjects in whom there is a lesion of the integuments. The dried purulent dust suspended in the air, and becoming deposited in wounds, hastens on the oxidation of the pus, increases its noxious properties, and multiplies cases of pyæmia."

It is pleasing to find that the rancorous hostility which at first manifested itself amongst French scientific men against those of Germany has much abated; and we doubt not that ere long the relations which were so mutually advantageous will be re-established. Under the circumstances, a display of great irritation was only natural amidst so much suffering and severe exaction, and in face of the fact that the German *savants*, so far from interposing to moderate the vehemence of their countrymen, were their most active instigators. Even the advances they have made towards reconciliation have somewhat of a superciliousness about them. Baron Liebig, indeed, took an early opportunity of an academical address, which we reproduced at the time (*Medical Times and Gazette*, April 22, p. 458), of assuring their late enemies that, now the Germans had gained their object, they were willing to be on the best of terms with them; and that, as far as he himself was concerned, he could never forget the generous hospitality and assistance he received in his younger days from some of those placed in the highest posts of French science, upon whom he had no other claim than manifesting a disposition for laborious research. The *Gazette Hebdomadaire*, referring to this address, observes:—

"Baron Liebig declares his hearty belief that there does not prevail in Germany any national hatred against the Latin races. Germany, well content with the energetic remedy the cost of which we are paying, is desirous of recalling the hospitality which she received at the hands of the Gay-Lussacs, the Aragos, the Thénards, and others, and, deigning to pardon us, invites us to re-establish our relations with her. We hope that in France we shall be enabled to forget the pitilessness of our enemy in order to be enabled to continue scientific intercourse with him, because higher interests are in view and the well-being of both of us is concerned. But even scientific France herself will require a long period to enable her to forget the miseries of this invasion, and she will call to mind the fable of the serpent and the husbandman. This journal has the more right to speak in this tone, for none other has shown a stronger desire to vulgarise the progress of science, originate wherever it may."

The writer concludes his article by putting a pertinent question to Baron Liebig—viz., whether the report which is so generally accredited be true—that he who has so warmly testified to the hospitality with which Thénard and other French *savants* received foreigners in his time, manifested any recollection of it on the occasion of Thénard's son (himself a distinguished man of science) being presented to him after being deported to Germany as one of the hostages? At all events, one fact remains certain—and a sad fact it is—that no one word of protest has issued from the educated and scientific classes of German society against the barbarous revival on the part of the military authorities of the practice of seizing innocent and peaceful persons, totally unconnected with the disputes at issue, and holding them as hostages. This practice, which must be regarded as having inflicted a deep disgrace on the German name, has become invested with additional horror by the procedures of those who imitated it in the French Commune. In no former revolution in France had it ever been adopted, and, but for the German example, would not have been thought of in this last one.

PARLIAMENTARY.—PUBLIC HEALTH (SCOTLAND)—FACTORIES AND WORKSHOPS ACT AMENDMENT BILL—SITE OF THE NEW MINT—HABITUAL DRUNKARDS—VACCINATION—THE CONTAGIOUS DISEASES COMMISSION—THE PHARMACY BILL.

On Thursday, July 13, in the House of Lords,

The Public Health (Scotland) Supplemental Bill and the Factories and Workshops Act Amendment Bill passed through Committee.

In the House of Commons,

The Government Bill for Erecting the New Mint on the Thames Embankment, and thereby loading the air with the products of chemical operations, was rejected by a majority of 23.

On Friday, July 14, in the House of Commons, on the motion of Mr. Dalrymple,

A Select Committee was appointed to consider the best means of dealing with habitual drunkards.

On Monday, in the House of Lords,

Lord Buckhurst expressed surprise, and much regret, that up to the present period of the session no measure had been introduced by the Government into their lordship's House relative to vaccination, or any other sanitary measure to check the progress of the alarming disease which for so long a time had been committing great ravages in the metropolis and elsewhere. Every day cases were reported by the press, showing the importance of some energetic measure, and, whatever course might now be adopted by her Majesty's Government, he should be prepared early in the next session to move for the appointment of a Select Committee to inquire into the state of the law as regards vaccination.

In the House of Commons, in reply to Mr. Heygate,

Mr. Stansfeld said it was the practice in sparsely-populated unions to admit of separate vaccination contracts for the months of April and October only. The object of that arrangement was to secure the attendance of a sufficient number of children for vaccination and the supply of fresh lymph. It was true an application had been recently made to the Poor-law Board by the Guardians of the Hambledon Union to sanction such an alteration of the vaccination contract as would enable vaccination to be performed in the month of July, but the Board of Trade had advised them not to assent to the arrangement.

In answer to Mr. Baines,

Mr. Bruce said the report of the Contagious Diseases Commission would be in the hands of the members in the course of a few days. It was signed by twenty-three of the twenty-five members, two being absent—one from illness, and the other on duty. The number of dissents detracted from the unanimity of the report. Two-thirds of the members were in favour of qualified compulsory application of the Acts; one-third (or rather seven) were in favour of strengthening rather than weakening the Acts; six were in favour of repealing all compulsory legislation; and all were in favour of further legislation, with a view of modifying the law to make it applicable to the whole country. Such a report was intended for the information of Government, of Parliament, and of the whole country; and at this period of the session it would be impossible for hon. members to give due consideration to the report, so as to be able to pass a useful measure founded upon it. It was, therefore, not the intention of the Government to introduce a Bill. Strong feelings had been created in the public

mind by the repetition of statements that in carrying out these Acts outrages had been committed upon innocent and virtuous women, and those statements had not been confirmed. Had they been confirmed, it would have been the duty of the Government, under any circumstances, to repeal Acts capable of such abuse; but the Commissioners said that the result of inquiry was to satisfy them that the police were not chargeable with any abuse of authority, that they had discharged delicate and difficult duties with moderation and caution, and that there was no foundation for the charges which had been so rashly made and repeated, and which had contributed to excite public indignation against these enactments. That finding was unanimous, and an examination of the facts showed not only that many of these statements were gross exaggerations, but that the greater part of them were sheer inventions. The House would therefore see that the substitution of legislation for that now in force was a matter which required on the part of the Government deep and anxious consideration, which could not be given to it either by the Government or by private members at this period of the session.

Mr. Gladstone, in the course of his speech on the state of public business, announced that the Government did not intend proceeding with the Pharmacy Bill.

On Tuesday, in reply to Mr. Read,

Mr. W. E. Forster said the Government were very anxious to pass the Vaccination Bill during the present Session, for it carried out the suggestions of a committee, and proposed an important administrative amendment upon a matter respecting which every member must feel that legislation ought not to be postponed.

SMALL-POX RETURNS OF THE ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.

New Cases of Small-pox occurring in the Public Practice of the undermentioned Districts.

Districts.	No. of Cases week ending						
	June 10.	June 17.	June 24.	July 1.	July 8.	July 15.	July 15. Sent to Hospital.
WEST—							
Chelsea	20	15	?	?	?	—	—
St. George, Hanover-square	21	10	10	8	6	10	8
St. James, Westminster	1	5	3	2	3	11	10
NORTH—							
St. Pancras	77	68	69	42	26	—	—
Islington	52	35	26	23	22	35	?
Hackney	20	19	22	10	15	—	—
CENTRAL—							
City of London	10	12	10	9	6	9	—
Holborn	6	9	4	3	3	—	—
St. Luke's	13	16	16	10	5	—	—
EAST—							
Whitechapel	18	9	12	10	3	6	?
Bow and Bromley	?	?	16	12	?	—	—
SOUTH—							
St. Mary, Newington	36	24	46	14	18	18	19
St. Olave, Southwark	2	1	1	1	1	—	—
Lambeth	23	?	?	16	14	—	—
Clapham	11	5	7	5	4	2	2
Wandsworth	2	—	4	5	—	—	—
Streatham	3	?	4	?	3	—	—
Lewisham	?	?	3	?	?	1	1
Camberwell	41	32	?	21	?	—	—
Plumstead	6	—	2	—	?	2	?

DONATIONS.—The Surgical Aid Society has received twenty-five guineas from J. S. Fletcher, Esq. The Metropolitan Convalescent Institution has received £50 from Lord Overstone. The City of London Truss Society acknowledge £105 from W. C. Coulthurst, Esq., and £105 from "H. O." The Fishmongers' Company have sent a donation of £50 towards completing the buildings of the National Sanitarium at Bournemouth. The Queen has contributed £100 to the same fund.

AUTOBIOGRAPHICAL RECOLLECTIONS OF THE PROFESSION.

No. XIV.

By J. F. CLARKE, M.R.C.S.,
For nearly forty years on the Editorial Staff of the "Lancet."

The North London Hospital—Robert Liston—First Introduction to the "Lancet"—Thomas Wakley's Courage—Literature, Law, and Medicine—Early Reporting—The Medical Societies forty years since—Medical Periodical Literature—Quarterly and Weekly Journals—"Erinensis"—"Scotus"—The "Intercepted Letters."

IN the early part of the year 1834, whilst I was a student, a girl came under my care with a great-toe in a state of necrosis. I was anxious that it should be removed. Accordingly, I sent her up to the North London Hospital. Liston had, some short time before, been appointed Surgeon to the Hospital, and my patient was placed under his care. I was quite a stranger to Liston, but as soon as he was informed by me that I had sent the patient to be operated upon, we became friends at once. This was the commencement of a friendship which ended only with the life of "the master." "I shall take the toe off," he said, "on Thursday; I hope you will be present." I was present. I had never seen him operate before, and was struck with the manner in which he handled the knife. Indeed, altogether, there was something so novel and striking in the proceeding that, simple as it was, could not fail to attract the attention and command the admiration of the spectators. The girl made an excellent recovery. I reported the case in Ryan's *Medical and Surgical Journal*, and continued to attend the Hospital, with the intention of reporting cases as they occurred. Liston had seen my report in Ryan's *Journal*, and spoke to me on the subject. He expressed himself pleased with it, and inquired if I knew who was the reporter. I told him I was. He then suggested that I should become connected with the *Lancet*, and gave me a letter of introduction to the late Mr. Wakley. I entered into an engagement with that gentleman to report Hospital cases, write notices of new books, and, in fact, to make myself "generally useful." For a considerable period I was the main support of the journal. I always, however, made my literary labours subservient to my more strictly Professional duties—in fact, literature was my amusement; practice the business of my life. My duties were not always unpleasant. In the earlier days there was a good deal of adventure and excitement, and I liked my employment. Moreover, there was something in the friendships I formed, and in the fact of my being a "pioneer," as it were, of progress. I served, too, under a man from whom I never for more than thirty years had an unkind word. Whatever were the faults of Thomas Wakley, it is certain he was brave, determined, and manly. He never left his *aide-de-camp* to bear the whole brunt of an assault. He cheered on the forlorn hope which he headed, and having got into a difficulty boldly faced it, and fought his way out of it. There were no little pettifogging manœuvres to escape responsibility when he had incurred it—no retreating from a position with a fallen crest, and a craven heart, at the threat of an antagonist, or the fear of an action for libel.

Many of the most eminent lawyers of the past and present age have owed their success, not in a trifling degree, to their connexion with the political press as reporters. Foremost amongst these was John Lord Campbell, who commenced the career of a briefless barrister as reporter on the *Morning Chronicle*. That once renowned journal was, at the period when Campbell joined it, edited by Perry—one of the ablest and most independent of journalists.(a) Perry "introduced"

(a) When Sheridan was lessee and manager of Drury-lane Theatre, he displeased Perry by his incompetence and irregularity. The *Morning Chronicle* was silent as to his doings. Meeting Perry, with whom he was on friendly terms, at a dinner party, Sheridan complained that he was neglected by the press. "Well," said Perry, "as far as I am concerned, I have refrained from noting your proceedings at Drury-lane out of charity to you—in fact, I must have condemned them if I spoke of you at all." "Oh," said Sheridan, "my dear fellow, abuse me as much as you please, but pray don't treat me as if I were not worth powder and shot." O'Connell used to boast that he would never have been so popular as he was had he not been "the best abused man in the kingdom." I had a conversation with the late Lord Lyndhurst, who, many years ago, I was

several of his reporters to the successful practice of the law. It is unnecessary to refer to many other well-known cases of later date.

There can be no doubt that the training which reporting gives is of immense advantage in after life to those engaged in that occupation. During my long connexion with the *Lancet*, I have been associated with men who had their "spurs to win." They have owed something of their success in life to that journal, and legitimately so, I think. They who elevated and adorned the literature of Medicine were entitled to publish their lectures and contributions on the practice of Surgery and Physic in the journal whose reputation they had done so much to enhance.(b)

When I joined the *Lancet* there was no regular staff. George Mills, afterwards deputy-coroner, was sub-editor, and there were occasional leader-writers. There was not a reporter connected with the journal. Lambert had so damaged reporting that no one cared to identify himself with that pursuit. Indeed, the difficulties to be overcome were very great, more especially as regards the societies of which I shall speak hereafter. Occasional reports of cases were sent *sub rosa* from some of the Hospitals, but the names of the senders were kept a profound secret. My first reports were from the North London, now University College Hospital. This had been just founded, and the staff was the most brilliant in London. I found plenty of cases worth recording. Samuel Cooper, Robert Liston, and Richard Quain, as Surgeons; John Elliotson, Anthony Todd Thomson, and Richard Carswell, as Physicians, gave clinical lectures regularly. From these and my note-book I kept up a tolerable supply to the journal. There were many incidents connected with my labours at the Hospital which will be referred to at the proper time; but I may say that there were two parties in the institution at "daggers drawn" with each other. The one party was headed by Liston, the other by Elliotson. Elliotson's party was numerically the stronger. A fierce antagonism was carried on for a considerable time. However, I managed to steer clear of these quarrels, and attended chiefly to my duties. Soon after I joined the *Lancet*, Mr. J. H. Horne, now in practice in New Zealand, was engaged to report the London and Westminster Medical Societies. This he did with considerable ability, but he sometimes gave great offence by attaching notes to the different speeches. These notes were his own views of the subjects under debate, and were occasionally anything but relished by the speakers. The consequence was Horne was compelled to beat a retreat. I was now requested to take his place in addition to my other duties, and this I did. The interval between the resignation of Lambert and the appointment of Horne had to some extent calmed down animosities, but these were again revived. Under these circumstances I took my seat on the back form of the Medical Society, at their house in Bolt-court. I had made up my mind to abstain from comments of any kind, and to condense as much as I could with justice to the speakers. I found the task I had undertaken was one of considerable difficulty. I was to a certain extent tabooed by the Fellows, each and all of whom appeared afraid to hold any conversation with me. No abstracts of the papers or cases read were supplied, and the debates were frequently very lengthy and very elaborate. The Members of the Westminster Medical Society were not so exclusive, and I managed to get on with them pretty well. After a time, the mode of my reporting in Bolt-court appeared to give satisfaction. One after another the Fellows spoke to me, and eventually I formed friendships with many of them which have lasted till the present time.

For a long time after my commencing the Societies, we did not report the Medical and Chirurgical, but it was thought advisable to do so. Accordingly I made arrangements for the purpose. I found that there was a strong general feeling against reporting. I was aware, however, that a bye-law existed which permitted reporters to copy official abstracts of the papers read and prepared by the secretaries. I knew, moreover, that these abstracts regularly appeared in the old *Medical Gazette* without any report of the discussions. On applying to Mr. Williams, the sub-librarian, I was informed that the abstracts were never in the library, and I was referred to one of the honorary secretaries on the subject. On applying to him he treated me somewhat brusquely, and declined to give me any assistance or information on the matter. It was Wednesday. At length he said the abstracts should be at the library of the Society on Friday. I reminded him that we went to press on Thursday night, and it was absolutely necessary, if my report were to appear that week, that I should have the abstracts early on that day. He declined to promise. "Very well," I said, "if I find the abstracts appear in the *Medical Gazette* of this week, and I do not have them in time for the *Lancet*, I shall know how to act." The abstracts were forthcoming the following day. For very many years the only published proceedings of the debates of this Society were those which appeared in the *Lancet*. These, indeed, are the only records of what Sir B. Brodie styled "as important—sometimes more important than the papers themselves." At first, it is difficult to describe the labour and harass I endured in taking my reports of the Societies. I never wrote shorthand, so-called, but, of course, had an abbreviated style. Even had I practised stenography it would have been impossible to have employed it with advantage. It is wonderful how some speakers may be condensed without injuring their speeches—in fact with improving them. No greater punishment could be inflicted on some debaters than to report their harangues *verbatim et literatim*. I soon, however, got into "a system," and then the work was easy enough. It was only occasionally, when I was fatigued after a hard day's work in practice, that I found my duties irksome, and to a degree painful. In the course of these papers I shall have occasion, now and then, to refer to some of the difficulties and dangers I experienced in reporting.

At this time (1834) the periodical literature of the Profession was in a transition state. At all events, it had not developed itself into anything like its present importance and power. The old *Medico-Chirurgical Review*, edited by Dr. James Johnson, was a cumbrous quarterly, chiefly filled by what were called "reviews," but which were in reality almost reprints of works issued in the preceding quarter. There were occasionally original reports of cases, and usually a few editorial remarks on passing events; but these were more in the nature of a postscript to a letter than the letter itself. The work was tame, heavy, and unprogressive. The *Medical Repository*, then edited by Dr. Copland, was a quarterly review even duller than the *Medico-Chirurgical*, and was called by the *Lancet* "the Mausoleum." It was a spiritless publication, and died a few years after of inanition. The weekly journals were the *Lancet*, the *Medical Gazette*, and the two London Medical and Surgical journals, Renshaw's and Ryan's. During the ten years of the *Lancet's* existence it had been like Ishmael in the wilderness, "his hand against every man, and every man's hand against him." It had been abusive, unscrupulous, bold; "the wild boar of the forest," as was said of Junius. It exercised considerable influence on the political condition of the Profession, and not a little on its science and usefulness. Mr. Wakley, with his usual sagacity, published all the most important lectures delivered in London, often at great cost, and sometimes with considerable risk. Shortly before this time, the "Intercepted Letters" of Wardrop, some of the most pungent and able articles ever written, had appeared in the *Lancet*. In my sketch of Wardrop I have referred to them. Those who are interested in the history of the Profession at the period referred to, can understand what an immense influence these letters had on the power and circulation of the journal. But in addition to Wardrop's contributions, the letters of "Erinensis" and "Scotus" attracted much attention. It is doubtful whether any articles which appeared in the *Lancet* during my long connexion with it, had more literary merit than those of "Erinensis." His sketches of Irish Medical celebrities had all the truthfulness and vigour of Shiel's "Sketches of the Irish Bar," which had some few years before been published in the *New Monthly Magazine*. But "Erinensis" was superior even

in the habit of meeting at dinner at the house of a connexion of mine. It was at the period the late Lord Truro was Lord Chancellor, and was succumbing to the attacks made upon him by the press, which eventually ended in his resignation of the great seal. "Truro," said Lord Lyndhurst, "has been frightened by the attacks made upon him. He should be gratified by these notices. Had I suffered such attacks to influence my conduct, I should not have been three times Lord Chancellor of England." It is remarkable that Thomas Wilde should have taken so seriously to heart the adverse comments made upon him by the newspapers. But it must be remembered that he was an old man, worn out by more than half a century of the hardest work at the bar. In the full vigour of health and strength the famous "serjeant" would have "laughed to scorn" such attacks.

(b) It has been erroneously supposed that a taste for literature is an obstacle to success in life of lawyers and Doctors. Experience has shown the fallacy of this supposition. Blackstone wrote poetry—was his fame and success as a great lawyer injured by his connexion with the muses? Lord Denman and Judge Talfourd were great judges; not the less so that one had translated the Greek Anthology, and the other was the author of "Ion." Arbuthnot and Mead were the great Physicians of their time, spite of their proclivities towards poetry and the classics. Jenner lost none of his popularity as the foremost amongst us because he wrote his "Signs of Rain," at the very time he discovered the power of vaccination over the most frightful scourge that afflicts humanity. It is needless to enlarge on this subject; the cases in point are numerous, and most of them familiar to all of us.

to Shiel in raciness and spirit. Who was "Erinensis"? I cannot answer this question. Many friends with whom I have conversed on the subject, were convinced that they knew him. But I am confident they are all mistaken. He was certainly not a lecturer on anatomy in Dublin, as many have supposed. The letters of "Erinensis" were forwarded to the *Lancet* office anonymously. The payment for them was made in cash to an unknown person at a coffee-house near Temple-bar. George Churchill, who for upwards of twenty years was the publisher of the *Lancet*, and the factotum of Mr. Wakley, declared that "Erinensis" was never personally known to anyone connected with that journal. Like Junius, he might take for his motto, "*Stat nominis umbra.*" The shadow of his name is still all that we know of him. But those who would seek to learn the great power that the *Lancet* exerted at this period might find in those remarkable letters some answer to their inquiry.(c) The letters of "Scotus" were able and energetic, but altogether inferior to those of "Erinensis." The author of the letters of "Scotus" is, I believe, still alive, and it is not in the province of these papers, unless under extraordinary circumstances, to refer to persons still living. Contributors to the periodical literature of the Profession of the present day will probably be astonished that, in 1834, it was difficult to get any contributor to attach his name to the article he sent for publication; in fact, he was afraid of being even suspected of writing for such a journal. At this time, with but few exceptions, writers or contributors to periodical Medical literature derived no advantage from the publication of their lucubrations. No; they sought for reputation and practice from connexion with some Hospital or dispensary, no matter how low it was in the scale, or how unimportant in public estimation. It was then thought that such a connexion was the stepping-stone to fame and fortune, and the contests for appointments to these institutions were frequently most costly and difficult. With some exceptions, these severe contests are things of the past; but even now there are men weak and foolish enough to spend time and money to obtain a position which, if they have not talent and acquirement to fill with credit and honour, fails to give them the advantage they sought.

Actions for libel for infringement of copyright, etc., were as "plenty as blackberries" against the *Lancet*. A coalition of almost all the leading Physicians and Surgeons was formed to counteract the "evil influence" of that journal. The *Medical Gazette* had been established by this coalition as a rival journal. But it assumed "quality" and "high breeding." Though it had been established six years, it was insipid and tame. Valuable communications were made to it by the "heads of the Profession," but it wanted the light, witty, and satirical spirit of the *Lancet*. It was edited by Dr. Roderick Macleod, one of the Physicians of St. George's Hospital. He was a gentleman and a scholar, but in no ways fitted to grapple with the Boanerges to whom he was opposed. He was nicknamed "Roderick the Goth," and attacked weekly in the *Lancet* in every way short of libel. The contributions to the *Gazette* were reviewed in such a spirit of harshness and ridicule, that it frightened the timid and disgusted the bold. Still the *Gazette* held on: its circulation was small, but then the journal was "highly respectable." I spoke in my last article of the two journals called *London Medical and Surgical*. Such was the state of the periodical literature of Medicine thirty-six years since. It was a state of things which I hoped to assist in altering, and above all to infuse a healthy and impartial tone into the reports from Hospitals and Societies. It was a work of many years, but at all events I have lived to see a vast improvement in many ways.(d)

THE Hospital for Sick Children, at Brighton, was opened on Friday last by the Bishop of Chichester.

(c) I may state that, some few years since, a man walked into the *Lancet* office in a state of apparently great destitution, and asked for some relief for pressing difficulties—difficulties of common maintenance. George Churchill inquired what claim he had on the *Lancet*. I am "Erinensis," he replied. Churchill tested him on some points with respect to his identity, and, being satisfied with the answers he received, Churchill stated his case to Mr. Wakley, and he was relieved.

(d) In order to show how strong the feeling against the *Lancet* was in some minds, and how lasting it became, the following little anecdote may not be out of place. Since I have been publishing these sketches, I have received numerous letters of inquiry and of information. Amongst one of the former was a request of me to ascertain, if I could, some particulars of the elder Cline. One gentleman, a former President of the College, only I knew who was intimate with that distinguished Surgeon. I was anxious to place some information before the Profession respecting a great Surgeon and a good man—too little known—and I accordingly wrote to the gentlemn referred to. Ia sent him copies of the journal containing my first two sketches, and asked him politely if he could give me some short account of Cline. My letter was never even acknowledged!

THE FRENCH AND RED-CROSS SOCIETIES.

A MEETING between the representatives of the nations of France and England was held on Monday evening at Willis's Rooms, when Drs. Ricord and Demarquay, delegates of the Ambulance Society of the French Press, and Count Serrurier, delegate of the Société de Sécours aux Blessés, were entertained at a banquet given by the most distinguished Physicians and Surgeons of this metropolis, under Sir William Fergusson, Serjeant-Surgeon to her Majesty. These gentlemen, who lately arrived in London as representatives of the French Government and the French International Aid Society, were the bearers of thanks and honourable recognition of the friendly assistance rendered to the sick and wounded of the French army by the officers of the British Society, under the presidency of Colonel Loyd-Lindsay. There were present:—Dr. Paget, President of the General Medical Council; Dr. Burrows, President of the Royal College of Physicians; Mr. George Busk, F.R.S., President of the Royal College of Surgeons; Sir Alexander Armstrong, K.C.B., Director-General of the Medical Department of the Royal Navy; Mr. T. B. Curling, F.R.S., President of the Royal Medical and Chirurgical Society; Mr. J. Hilton, F.R.S., President of the Pathological Society; Dr. Gull, F.R.S., President of the Clinical Society; Dr. B. Hicks, F.R.S., President of the Obstetrical Society; Dr. Andrew Clark, President of the Medical Society. The metropolitan Hospitals were represented by:—Mr. J. Paget, F.R.S., Mr. H. Coote, Mr. L. E. Holden, Mr. Savory, F.R.S., and Mr. G. W. Callender, F.R.S., of St. Bartholomew's Hospital; Dr. Barnes, Mr. S. Jones, Mr. M'Cormack, and Mr. F. Mason, of St. Thomas's Hospital; Drs. B. O. Rees and Pavy, F.R.S., Messrs. Bryant and Durham, of Guy's Hospital; Messrs. Partridge, F.R.S., John Wood, F.R.S., Bowman, F.R.S., and R. Bell, of King's College Hospital; Messrs. Critchett, Couper, and Maunder, of the London Hospital; Messrs. Gascoyen, S. A. Lane, and Norton, of St. Mary's Hospital; Mr. H. Hancock, sen., Vice-President of the Royal College of Surgeons, of Charing-cross Hospital; Sir W. Jenner, Bart., Sir H. Thompson, Messrs. J. Erichsen, B. Hill, J. Marshall, F.R.S., Quain, F.R.S., of University College Hospital; Dr. J. Ogle and Mr. P. Hewett, of St. George's Hospital; Mr. Barnard Holt, of Westminster Hospital; Dr. Priestley and Mr. De Morgan, of the Middlesex Hospital; Mr. John Gay, of the Great Northern Hospital. Amongst others, were observed:—Dr. H. Bennett, Dr. Gueneau de Mussy, Dr. Frank, Dr. Gordon, C.B., Dr. Pratt, Dr. Quain, Dr. Tilt, Dr. Vintras, Dr. C. J. B. Williams, Dr. Wiltshire, Count Barozzi da Vignola, M.R.C.S. Eng.; Messrs. Acton, Brodhurst, Bostock, De Méric, Fitzgerald, Ernest Hart, Startin, etc.

After the usual loyal and patriotic toasts given by the Chairman and Dr. Burrows, President of the Royal College of Physicians, and responded to by Sir A. Armstrong, the Director-General of the Naval Medical Department, and Dr. Gordon, that of the evening—"The Health of Drs. Ricord and Demarquay"—was received with great enthusiasm. In proposing it Sir WILLIAM FERGUSSON said that time was specially important to most men in the room, and it had been arranged by those who had conducted the ceremonies of the day that some of the toasts incidental to large social gatherings in this country should be omitted, and he now rose to proceed with the business which was uppermost in the minds of all present. They had with them as guests two distinguished members of the Medical Profession belonging to a neighbouring country, and it was to do honour to them that they were now assembled. Drs. Ricord and Demarquay were as well known to the Profession in England as by their brethren abroad. Their fame had extended over the whole world, and each had achieved for himself great reputation. But it was not entirely on this account that the present greeting had been offered. Hundreds of men of eminence in the Medical Profession came to these shores from all parts of the world, and they were kindly received in our Hospitals and on other occasions; but it was not always deemed needful to entertain them at public festivals. He believed that these gentlemen usually left our shores well contented with such attentions and hospitalities as had fallen to their lot. There was something peculiar in the visit of the guests of the evening. They had come to England, selected by their own countrymen, to perform an unprecedented act of courtesy from our immediate neighbours on the

Continent—from the French nation—bearing a message of thanks to the people of England for warm-hearted kindness and sympathy as well as material assistance rendered at a time when France was suffering hardly under the calamities of war; they had come to offer gratitude and friendship for valuable assistance afforded in the time of their greatest need, and to express to us their earnest hope and desire that the friendship which had so long obtained between the two countries might never be broken. These gentlemen had been specially engaged in administering much of those comforts that the people of England had dealt out with such unsparing liberality. They had been at the head of the Ambulance Corps of the Press, which had rendered such invaluable service to the sick and wounded during the calamities of the siege of Paris. It was on this account chiefly that the gentlemen assembled were desirous of offering the present homage; for all felt that Drs. Ricord and Demarquay, with those of the Profession who had so ably assisted them, had thus put themselves at the head of one of those movements which the Medical Profession were always ready to undertake for the public weal when danger from the scourge of war threatened. This was a feature connected with the Profession which all cherished as one of its most glorious privileges. Despite of disease and danger from bullets, they were sure to be found on such occasions. There had been reason to boast of it since the earliest records of the Profession. Nearly 3000 years ago the Greek army, as it lay before Troy, were encouraged in their works by the circumstance that two eminent men were with them—Podalarius and Machaon. It was in those days that our Profession had acquired the character of godlike, because it could afford assistance under circumstances when no other could. (Cheers.) In other sieges similar traditions had been referred to, and it was one worth special notice on this occasion that a predecessor of their present guests, a great Surgeon of France who flourished 300 years ago, and had been body Surgeon to several sovereigns of France, had on one occasion been the means of raising a siege of Metz, the very city about which so much had recently been said and done. Paré was smuggled within the walls, and, when it was known, the garrison seemed, as it were, to be doubled in numbers, each man felt himself so much impressed with the idea that the great Surgeon was among them. This revived confidence speedily led to the raising of the siege. It was for the honour that the guests had recently reflected on our Profession that we desired specially to testify to them our admiration for their conduct and our sympathy for their sufferings during the period of trial and danger. Each of them had already done such good to their fellow-creatures that they might well have stood aside and let younger men take their posts of danger, but they preferred duty to all other considerations; and all hail to them for their devotion. Their guests in some degree were representatives of that great school of Medicine and Surgery for which Paris had so long been famous, and it was the wish of all Englishmen present to assure these gentlemen of their continued high consideration for that famous school. They must still look forward to aid from it in furthering the progress of the Profession at large. He thought it would be appropriate on the occasion to refer to two remarkable improvements of modern times which had emanated from that school. In former days in this country the eminent Physician prided himself in carrying a sort of badge of his status—a tall, stout, gold-headed cane—and they all knew that such a rod had disappeared. It would be a curious sight for them to see Dr. Burrows, President of the Royal College of Physicians, walking down Regent-street with such an emblem in his hand; but he had no doubt that, if the Doctor were met under ordinary circumstances, a small bit of wood might be found in his pocket or the crown of his hat—a mysterious-looking thing, smaller than a field-marshal's baton (he used that word as their friends had lately been military in some respects), yet with a power and quality little less significant than that famous rod. This was the stethoscope, which in its own way did marvels. It had added a new sense, as it were, to the Physician; it had added a new eye to the mind, and gave him the power to see into the very centre of the human body. The other instance he would take from the side of Surgery. Men in England prided themselves upon the famous Cheselden, who had done so much for lithotomy. He was so famous in his time that Surgeons came from France to take lessons from him. But in modern days the horrors and dangers of that terrible operation had been largely set aside by lithotrity, and it was to the French school that we owed the commencement of that beneficent proceeding which had conferred health and happiness on many, from the sovereign on the throne to the lowly peasant or humble artisan. It was for this the Surgeons of France might well be proud. (Cheers.) MM. Ricord and Demarquay, these gentlemen have deputed me to address you. I would, for their sake and yours, that the task had fallen to someone more able to fulfil it. (Cheers.) In the name of everyone present, I have to offer you good and kind wishes. I request that you will convey to your brethren in Paris our continued profound respect and esteem, and ever cordial hopes that this visit of yours may be the means of cementing more firmly those bonds of friendship which we desire to see permanently uniting these two great nations. (Prolonged cheers.)

Dr. Ricord, who was received with hearty applause, spoke in English. He said it was with most pleasurable emotion that he rose to thank the eminent chairman for the kind and flattering manner in which he had proposed and the company had received the toast; his emotion was heightened when he looked round and saw so many faces of friends, some of them dear ones—many of them he was proud to acknowledge his former pupils; in fact, it almost seemed as if he was once again under the shade of the old lime trees in the Hôpital du Midi, encouraged by their presence and approbation. It was no small satisfaction to find himself again among them and supported by such a distinguished gathering of English *confrères* met together with such kind intentions and good feelings towards the Profession in France—feelings which he was sure would be most heartily reciprocated. Since the happy time to which he alluded, France had passed through much affliction, sorrow, and suffering; at times so great was the danger, and so depressed were they, that he often gave up all thought or hope of seeing such friends again. The siege of Paris had been more or less to them—to the Society of the French Press Ambulances, to the Medical Profession both in Paris and England; in fact, far and wide—the siege of Paris had been the source of anxiety and some very arduous work. Those more immediately and actively engaged in the work had to fulfil their Professional duties under various and most trying conditions of danger and difficulty. In the ambulances of the French Press Fund they had but short time to call together and organise a numerous staff of workers and assistants of all sorts. One thing was most satisfactory, and that was the alacrity with which, at his (Dr. Ricord's) call, there came together 150 Doctors, Surgeons, and dressers belonging to the civil Hospitals, some of the most eminent Surgeons, members of the Société de Chirurgie, or of the Academie de Médecine; they had the good fortune to be joined, and most ably assisted, by Drs. Gordon, Markheim, and Wyatt, and with such a staff they had been able to establish fourteen permanent ambulances and five perambulating, or *ambulances volantes*, as they were called. Owing to the investment of Paris their labours were more particularly confined to the capital, while the operations of the French branch of the International Red Cross Society were happily extended over the provinces at large, enabling them to care for 25,000 sick as well as wounded who had passed through their hands. Dr. Ricord felt it would be the blackest ingratitude as a Frenchman were he to pass over in silence the great sympathy and material help so kindly, so generously extended to them by their English *confrères*, several of whom devoted their time, their talents, and their energy to a labour of love and brotherly sympathy, thus setting an example which had been most nobly and most munificently followed by the generous British public. He seized that opportunity by their presence that evening to eulogise the conduct of Drs. Frank, MacCormac, and Markheim, of the Anglo-American Ambulance, and of Dr. Pratt, who came from that noble country, America, where he (Dr. Ricord) had spent some of his earlier years. After expressing an earnest hope that happy Old England would never have to go through such scenes as they had encountered, and renewing his gratitude to this country, he eulogised some of our great men, as Sydenham, the two Bells, Hunter, Lawrence, Sir Astley Cooper, Sir Benjamin Brodie, who once received him out of compliment to his father, when, said Dr. Ricord, I was obliged to tell him, to his great surprise, that I was my own father. Such men as these were called in France "*une brillante pleiade.*" After alluding to the civil war, unparalleled in history, ancient or modern, unequalled either for the ferocity of the wretched leaders of a misguided and half-starved populace, or for the anguish it caused all honest people, Dr. Ricord concluded by again thanking them in his own name, in the name of the French Profession, honoured by such a meeting, expressing a hope that the banquet would be the bond of sympathy and friendship for ever, not only between English and French Doctors, but between the English and French nations. (Great cheers.)

Dr. Demarquay, who spoke in French, said: I attribute to my connexion with my illustrious master, Ricord, and with the great Medical bodies of France this brilliant reunion, and the marks of sympathy with which you honour me. In that connexion allow me to express my deep gratitude for the sympathy which you have testified to France, full of misfortunes, conquered, saddened by an unexampled civil war, but at this time courageously uprising from her defeat. To appreciate our friendship and gratitude, you must mentally place yourselves in a great city, beleaguered so that nothing could enter it, and in which the first necessities of life were beginning to fail. In that city the echoes from without told us how many of you had quitted your families and occupations, and, moved by noble impulses of the heart, had come to tend our wounded. The French Profession, which showed in the most painful circumstances as much courage as devotion, from the Ricords and Nélatons to the youngest of our students, learnt with profound emotion your chivalrous acts, and they have established a lasting friendship between the Surgeons of England and France which time will only consolidate. The visit and the splendid gifts brought by Colonel Loyd-Lindsay added to our debt of gratitude, and then came the conveys from the Lord Mayor of London. Under the flag of Geneva the ambulances were saved until the advent of the Commune. Our task then became more difficult. Our Secretary-General was thrown into the cell of Troppmann, and with difficulty escaped the fate of the illustrious Archbishop of Paris and M. Bonjean, that noble victim of the French magistracy. Dr. Chenu was imprisoned, and with the utmost difficulty were we enabled to procure his release and to fulfil the arduous duties of our numerous ambulances of the Press. But we strove to reach the height of our duties, and our courageous companion, your compatriot, Dr. Markheim, was among those who never faltered in positions of extraordinary danger. I drink to "The Union of English and French Surgery," which up to this day have the honour of having chiefly contributed in Europe to the welfare of humanity by the extent and importance of their labours.

Mr. Paget, in earnest and felicitous language, proposed "The Sociétés de Sécours aux Blessés of France and England," to which Count Serrurier and Captain Brackenbury replied.

Dr. Gull proposed "The Press and its Good Works." Those delegates who were now here were the representatives of a noble work of the French press—its ambulances; founded and sustained by the exertions of the press. The Crimean Fund of the *Times*, the funds for the relief of the sufferers around Sedan, Metz, and Paris, were examples of the good works of the English Press. Than Dr. Russell no more apt representative of their works could be found. The present gathering was due to the initiative of Mr. Ernest Hart, a leading mind in the Medical press, aided by the exertions of Sir Henry Thompson. He coupled with this toast the names of Dr. William Russell and the Hon. Lewis Wingfield.

Dr. Russell said the press usually preserved a decorous silence as to its good works. It had sometimes, he feared, to answer for exciting passions, and producing unpleasant irritation. Such works as those alluded to redeemed its character. A long experience of wars gave him a continually growing horror of its cruelties. He trusted that the influence of the press might be used to avert the causes of war, to mitigate the sufferings incidental to it, and to support those who devoted themselves to such noble work as that which he had seen under the Red Cross.

The Paris War-Balloons.—M. Tissandier has just communicated to the Academy of Sciences an account of the various balloons employed during the siege of Paris. The first four "aerostats," as it is now the fashion to call them, which left Paris between September 23 and October 1, were old balloons, which had been repaired. They all escaped beyond the Prussian lines. The other balloons, which were constructed during the siege, "cubed" 2000 metres; and of these, sixty-four left Paris between September 21 and January 18. Of these, five were taken prisoners by the Germans, at Verdun, Chartres, Wetzlar, Ferrières, and Rottenburg. Two of the aerostats were carried out to sea, and have never been heard of. One, the *Ville d'Orleans*, traversed the North Sea, and descended in Norway, after a voyage of 1600 kilomètres, performed in fifteen hours. These sixty-four siege balloons carried about 9000 kilogrammes of dispatches, representing 3,000,000 letters, at three grammes per letter, 354 carrier-pigeons, and ninety-one passengers, besides the sixty-four aeronauts.

THE PSYCHIC FORCE.

(*From a Correspondent.*)

Mr. Crookes is so well known in the scientific world as the discoverer of the metal *Thallium*, and the editor of the *Chemical News* and of the *Quarterly Journal of Science*, that any statement that he may make regarding matters pertaining to Physics is, at least, deserving of respectful consideration; and if it should so happen that his statement is supported by Dr. Huggins, the eminent spectroscopic astronomer, it carries with it a double weight. Some of our readers may possibly recollect that about a year ago Mr. Crookes wrote an article in which, after expressing in the most emphatic manner his belief in the occurrence, under certain circumstances, of phenomena inexplicable by any known natural laws, he indicated several tests which men of science had a right to demand before giving credence to the genuineness of these phenomena. During the year that has elapsed since the publication of this paper he has had opportunities for pursuing the investigation of the mysterious phenomena to which he alludes, and which, we may state, are those which are usually referred by a certain class of credulous believers to spirit-influences. His experiments are now published, and "appear conclusively to establish the existence of a new force, in some manner connected with the human organisation, which, for convenience, may be termed the Psychic Force." This is assuredly a bold and startling assertion, and yet we must admit that Mr. Crookes has apparently established it on a sound experimental basis.

It seems from his observations that this force does not equally manifest itself in all persons of apparently similar bodily frames and constitutions, and that, even in those who are endowed with it, it is very far from constant in its manifestations, being sometimes powerful and on other occasions perfectly inert, in so far as any manifestations are concerned. It is in the class of persons termed "mediums," from their assumed intervention between the material and the spiritual worlds, that this force is most powerfully developed, and amongst them the celebrated Mr. Home stands pre-eminent in the possession of this remarkable and somewhat rare endowment. "It is mainly owing (says Mr. Crookes) to the many opportunities I have had of carrying on my investigations in his presence that I am enabled to affirm so conclusively the existence of this force."

Having upon some half-dozen occasions witnessed the remarkable phenomena which occur under Mr. Home's influence, and especially (1) the alteration in the weight of bodies, and (2) the playing of tunes upon musical instruments (generally the accordion, for convenience of portability), without any direct human intervention, under conditions rendering contact or connexion with the keys impossible, Mr. Crookes invited that gentleman to his house,(a) where, in the presence of a few scientific inquirers, these phenomena could be submitted to crucial experiments.

With this view he prepared certain test-machinery, which Mr. Home had no opportunity of previously seeing, consisting of a cage for the accordion experiments, and of an apparatus for determining alteration in weight. The cage was composed of two hoops, of about two feet in diameter, connected by narrow laths, so as to form a cylinder open at both ends. A netting of copper wire, in meshes of about two inches by one, surrounded the sides of the cage, which was of such a height that it could just slip under the dining-room table, but was too close to the top to allow of the hand being introduced into the interior, or to admit of a foot being passed under it. The other apparatus consisted of a mahogany board, three feet long, nine and a half inches wide, and one inch thick, with feet composed of strips of mahogany one and a half inches wide, screwed on at each end. One foot rested on the end of a strong table, while the other extremity of the board was supported in a horizontal position by a spring balance hanging from a firm tripod stand. The pointer of the balance indicated that the board thus arranged exerted a downward pressure of three pounds.

Reversing the order in which the experiments took place, we shall begin with those made with the board, inasmuch as they

(a) We ought to observe that the results which are recorded in this article were not obtained on the first trial, when it seems that Mr. Home's psychic force was at its minimum. It is not very clear, from Mr. Crookes' paper, whether it was on the second or the third of his visits that these phenomena were exhibited.

seem the least open to any criticism. Everything was arranged in position before Mr. Home entered the room, and he does not seem even to have been informed of the object the experimenters had in view. Sitting in a low easy chair, he "placed the tips of his fingers lightly on the extreme end of the board which was resting on the table," while Dr. Huggins and Mr. Crookes sat, one on each side, watching for any effect that might be produced. "Almost immediately the pointer of the balance was seen to descend. After a few seconds it rose again. This movement was repeated several times, as if by successive waves of psychic force. The end of the board was observed to oscillate slowly up and down during the time." In evidence that he was exerting no downward pressure (although, if he had done so, it could not possibly have caused the distal end of the board to descend, but, on the contrary, to rise), he placed a small hand-bell and a little card match-box between the tips of the fingers and the board. "The very slow oscillation of the spring balance became more marked," and Dr. Huggins, on watching the index, saw it descend to 6½ lbs., and almost immediately afterwards to 9 lbs. As the normal weight of the board, suspended horizontally, was 3 lbs., there is some force measured by an increased weight, varying from 3½ lbs. to 6 lbs., to be accounted for.

During this experiment Mr. Home's feet, as well as his hands, were closely watched by all in the room—viz., Mr. Crookes and his brother, his chemical assistant, Dr. Huggins, and Mr. Serjeant Cox.

We now take up the other set of experiments, and shall allow Mr. Crookes to describe them for himself. "Mr. Home took the accordion (a new one specially purchased for the occasion) between the thumb and middle finger of one hand, at the opposite end to the keys. Having previously opened the bass key myself, and the cage being drawn from under the table so as just to allow the accordion to be passed in, keys downward, it was pushed back as close as Mr. Home's arm would permit, but without hiding his hand from those next to him. Very soon the accordion was seen by those on each side to be waving about in a somewhat curious manner; then sounds came from it, and, finally, several notes were played in succession. Whilst this was going on, my assistant got under the table and reported that the accordion was expanding and contracting; at the same time it was seen that Mr. Home's hand, which held it, was quite still, his other hand resting on the table. Presently the accordion was seen by those on either side of Mr. Home to move about, oscillating and going round and round the cage, and playing at the same time. Dr. Huggins now looked under the table and said that Mr. Home's hand appeared quite still, while the accordion was moving about emitting distinct sounds. Mr. Home still holding the accordion in the cage as before, his feet being held by those next him, and his right hand resting on the table, we heard distinct and separate notes sounded in succession, and then a simple air was played. As such a result could only have been produced by the various keys of the instrument being acted upon in harmonious succession, this was considered by those present to be a crucial experiment. But the sequel was still more striking, for Mr. Home then actually let go the accordion, removed his hand quite out of the cage, and placed it in the hand of the person next to him, the instrument then continuing to play whilst no one was touching it."

The effect of electricity was then tried, a current from two Grove's cells being made to pass round the insulated wire cage. Mr. Home again held the instrument as before, and it immediately sounded and moved about vigorously, but it was uncertain whether the current had any part in this performance. "The accordion was now," says Mr. Crookes, "again taken without any visible touch from Mr. Home's hand, which he removed from it entirely; I and two of the others present not only seeing his released hand, but the accordion also floating about with no visible support inside the cage. Mr. Home presently re-inserted his hand in the cage, and again took hold of the instrument. It then commenced to play—at first chords and runs, and afterwards a well-known sweet and plaintive melody. Whilst this tune was being played, I took hold of Mr. Home's arm below the elbow, and gently slid my hand down it, until I touched the top of the accordion [which it must be recollected was always held with the *keys downwards*]. He was not moving a muscle. His other hand was on the table visible to all, and his feet were under the feet of those next to him."

Such is Mr. Crookes's wonderful story, corroborated in so far as the facts are concerned by Dr. Huggins, who, with commendable caution, adds that, "while the experiments appear to show the importance of further investigation," he wishes it to be understood that he expresses "no opinion as to the cause of the phenomena which took place"; and Mr. Crookes himself is almost equally cautious, for he observes that, respecting the nature of the force (which for convenience of language he calls *Psychic*) and the correlation between it and the other forces of nature, "it would be wrong to hazard the most vague hypothesis." As might have been *à priori* expected from the characters of the observers, they do not even refer to the spirit hypothesis as explanatory of this new force.

If, as can hardly be doubted, the experiments we have recorded are repeated, we would venture to suggest that the cage should not be placed under a table—which, if the phenomena are due to a force emanating from Mr. Home, is a worse than useless part of the apparatus. We should likewise be glad to learn whether the accordion, when not touched by Mr. Home's hand, can play a tune with which that gentleman is not familiar; whether he can call upon it for any special tune known or unknown to himself; whether it will commence and continue playing while Mr. Home is engaged in reading, conversation, or playing on some other instrument—as, for example, the violin; and whether a psychical agent, totally unacquainted with music, can evoke these mysterious phenomena.

In conclusion, we must express our profound satisfaction that so difficult an investigation has been taken up by men so thoroughly qualified for the task as Mr. Crookes and Dr. Huggins.

REVIEWS.

Subject and Object, as connected with our Double Brain, and a New Theory of Causation. By R. Verity. London. 1870. Pp. 86.

This little book, which is composed of six chapters, treating respectively of (1) The Origin and Causation of Consciousness, (2) The Origin and Causation of Perception, (3) A New Theory of Causation, (4) Dual Constitution of First Causation, (5) Our External and Internal Objectivity, and (6) A New Method of Inquiry by Causation, obviously falls rather under the department of psychology than of physiology. From his study of "the human brain and its comparative anatomy," the author arrives at the conclusion "that conscious life and personal sensation begin in the *optic thalami*." These, again, he observes, "fulfil the function of *sensory centres*, as the *corpora striata* fulfil that of *motor centres*. . . They crown the summit of the *sensory tract*, whose fibres plunge into their substance. Downwards they are connected by bands and filaments with every part of the *sensory*, *spinal*, and *cerebellar* systems; and upwards on each side with the *anterior*, *middle*, and *posterior lobes*; with the *corpus callosum*; with the *corpora striata*; with the *quadrigemina*, the *fornix*, and the complex apparatus of expression at the base of the brain which terminates in the *tuber cinereum*, the *corpora albicantia*, and the commissure of the optic nerves. . . In short, there is no part of the nervous system with which they are not directly or indirectly connected; so that, whilst by their order and arrangement our consciousness is ever changing in form and expression, and undergoes endless modifications, yet, owing to the perfect anatomical mechanism by which the unity of the *thalami* and the brain is effected, we never feel otherwise than one and the same individual. We are one and we are many, and this is the character of our consciousness." The author then goes on to prove to his own satisfaction that all forms of excitement are carried to these organs, which not only connect them with sensations, but make them part and parcel of our conscious selves, and discusses the important question whether both *thalami* are necessary for all forms of consciousness. Upon this point he comes to the conclusion that "there are present in one hemisphere the subject who is conscious, and in the other the feeling of which he is conscious." By this hypothesis (for we can call it nothing more) he explains the curious phenomena of double consciousness after recovery from brain fever or injuries of the head, the unconsciousness of the true somnambulist and of the magnetised clairvoyant, etc., there being in these cases partial interruption between the two *thalami*. We must let Mr. Verity explain his views regarding sleep and dreams in his own words:—"The isolation of each hemisphere from contraction of the folds of the *callosum* and consequent pressure of the subjacent parts on the *thalami* may reasonably be regarded as the proximate cause of sleep. Hemispheric intercommunication and consciousness are then simultaneously suspended. But when excitements of portions of the brain overcome this contractile tendency and traverse the connecting commissures, both the hemispheres become partially engaged, and a confused state of consciousness results. Then is sleep broken by dreams. Sleep

is thus as much a positive as a negative state of the brain, proceeding from contraction of the *corpus callosum* upon itself as a ball" !

The author sums up his observations on the origin and causation of consciousness with the remarks that "the *thalami* and the *anterior lobes* are the essential anatomical conditions of self-consciousness and personality;" that, "through the duplicate and reflex action of the *thalami*, we are conscious we feel ourselves one and the same person; that, through the *anterior lobes*, we know it, and know that we know it, and that through both we obtain a perfect synthesis of our *ego;*" and that, "were it not for the second hemisphere, we should have not a conscious but an automatic life."

The succeeding chapters discuss topics which do not fall within the scope of a Medical journal—as, for instance, "Our External and Internal Objectivity"—and we therefore now bid our author farewell, leaving our readers to decide for themselves as to the soundness of those of his views which we have laid before them. In one point we are in complete accordance with Mr. Verity—namely, "that to revive our interest in metaphysical and psychological studies, they must be founded on the facts and discoveries of anatomy and physiology."—P. 59.

PROVINCIAL CORRESPONDENCE.

LIVERPOOL.

July 18.

The health of the borough has been improving very markedly for some weeks past, small-pox having declined, while, owing to the low temperature and abundant rain, the usual summer diarrhœa so fatal to the children of Liverpool can scarcely be said to have shown itself. There were twenty-seven deaths last week from variola, and twenty-six and thirty-six in the two previous weeks respectively.

One of the last public acts of the late Lord Derby—if not his last—in Liverpool was to lay the foundation-stone of the new Southern Hospital, which is now rapidly nearing completion. The building is designed for the accommodation of over 200 patients, and in its hygienic arrangements is admirable.

No other town in the kingdom presents so many facilities for the acquisition of biological treasures from all parts of the world as Liverpool, and her noble free public museum, growing every day in importance and scientific value, is a standing proof that her advantages in this respect are not neglected. A not unfrequent contributor to its treasures has been Captain Perry, who commands one of the Brazilian line of steamers, and who to thorough seamanship unites a most enthusiastic love of natural history. This gentleman set an example a few days since which we hope will be abundantly followed, by presenting to the museum of the School of Medicine a valuable collection of insects and fishes brought by himself from Brazil. When making this gift, the donor generously stated that he intended it only as an instalment. The value of such presentations cannot be too highly estimated, now that the study of the forms of animal life is becoming so increasingly important to science. The rapid progress made by the Medical School of this town within the past few years, and the increasing number of students who year after year attend its classes, render it especially desirable that its various departments should be as complete as possible; and, if for no other reason than this, we hope to see many others—and especially many of the Medical officers—who set out from this port to all parts of the earth in charge of ships' crews and passengers, and not a few of whom received their Professional education in the town, emulate the generous example of Captain Perry.

GENERAL CORRESPONDENCE.

MR. KEMPSTER AND THE GENERAL MEDICAL COUNCIL.

Letter from Mr. W. H. Kempster.

[To the Editor of the Medical Times and Gazette.]

Sir,—I think I may fairly ask you for a small space in your journal to enable me to explain several matters which do not come out clearly in the report of my recent case at the Medical Council. In the first place I have to thank the Medical Council for the great impartiality evinced by them during the investigation, and their kindness at the termination of the case, and more especially the President, who conducted the proceedings in a manner worthy of our most distinguished judges. But I still feel that I have grave cause of complaint against the Medical Council, or rather against the English Branch Council, in their not having given me any intimation that certain charges were made against me, and were being investigated by them. I ought to have been invited to tender an explanation, which I should have readily done, after which I am sure that the case would never have assumed the complexion it did. It was mentioned that the Council were obliged to frame the charge as one of "infamous conduct in a Professional respect," as they have no power to erase a name from the Register for any other cause. But surely the fact that they can pass but one sentence—that of Professional extinction—should render them careful not to put their powers lightly or too readily into force, as they must be aware that the fact of having been tried on such a charge might, to many men, be absolute ruin.

No notice has been taken of the fact that Mr. Goodson was, during the time embraced by the charges, a Medical student, attending Hospital practice and lectures, and that he is now qualified.

It was also not sufficiently understood that a "Medical certificate of death" is not a legal document in the ordinary acceptation of the phrase, as it is not required by, nor mentioned in, any of the numerous Acts of Parliament relating to registration, and is merely a form issued by the Registrar-General for the convenience of the local registrar, and the only information in it of vital importance is the *cause* of death.

Battersea, July 18. I am, &c., W. H. Kempster.

THE BEAUPERTHUY TREATMENT OF LEPROSY.

Letter from Dr. Bakewell.

[To the Editor of the Medical Times and Gazette.]

Sir,—I was very much pleased to see in your number of July 1st a letter from Dr. Dalton, of Demerara, on the subject of Dr. Beauperthuy's treatment of leprosy, which strikingly corroborates what is stated in my reports on the treatment.

The Parliamentary paper lately published, which may be had from the Queen's printers for 6d., gives all my reports, and a full account of the treatment, and to it I would refer any of your readers who may wish to know more about it than has been given in the brief communications I have addressed to you. I have to thank you for having so kindly inserted them, and thus very powerfully aided in making known a method of treatment which will, I feel convinced, commence a new epoch in the history of this hitherto incurable malady. Although the subject excites little interest in England, it would be difficult to exaggerate its importance in hot countries.

The method will now have a fair trial, and I have, I suppose, now done with it. It has been a hard struggle to get it established, and the more so as Dr. Beauperthuy has not yet published a line about it. Few men ever worked harder to bring into notice a discovery of their own, than I have for another man's. I shall now consider myself at liberty to try it with those modifications which have suggested themselves to me, and which will, I think, render it more useful. It happens, by a curious chance, that one of the first cases I have had during the few days since I commenced practice here, is one of elephantiasis, on which I intend to try it. I believe the cashew-nut oil will be useful in many cases as a slow but powerful counter-irritant. It may be procured from Messrs. Savory and Moore, who have my receipt for preparing it.

I may just add that I have had a letter from Dr. Brassac, Physician of the 1st class to the French Navy, who was sent out to Venezuela to investigate the treatment, in which he says that he has been for some months employing it with results similar to those obtained by Dr. Beauperthuy and myself.

I am, &c., R. H. Bakewell, M.D.

Northgate House, Leicester, July 9.

Société Protectrice de l'Enfance.—We are glad to find that this useful Society has resumed its labours. It has notified that it is now prepared, as heretofore, to undertake the gratuitous surveillance of children placed at nurse, and to transmit information concerning their health to their parents. The Society defers its distribution of prizes to deserving nurses until next January. It will then also award its prize for the best essay on the following subject:—"The excessive mortality of infants during the first year of their existence, and the means of preventing it."—*Union Méd.*, July 13.

LEGAL INTELLIGENCE.

DYTE *v.* THE ST. PANCRAS GUARDIANS.

At the Court of Exchequer, Guildhall, before Mr. Baron Pigott and a common jury, an action was brought by Mr. D. H. Dyte to recover £127 6s., the amount of salary claimed by him in lieu of notice, on account of his alleged illegal dismissal from the post of Medical Officer of the Highgate Infirmary. The evidence went to prove that the plaintiff had been engaged by the St. Pancras Guardians as Medical Officer of their new Infirmary at Highgate. As the Infirmary was going to pass out of the hands of St. Pancras, and be transferred to the Central London Sick Asylum District, all the appointments (the plaintiff's among the number) were originally made for three months. At the end of that time, it not having been possible to complete the arrangements of the transfer, the plaintiff and the other officers were continued in their respective appointments, with the understanding that they were to remain until the transfer took place, and this arrangement received the sanction of the Poor-law Board. On May 24, it being thought tolerably certain that the Infirmary would be transferred at Midsummer, formal notices were served upon the plaintiff and other officers to terminate their engagements on June 24; and the chairman, in handing the notices, said they were given only to protect the Guardians from liability for the salaries beyond that date, as it was thought the Infirmary would then be transferred, but in the event of its not being transferred, the notices were to go for nothing, and matters were to continue as hitherto. The Infirmary was not transferred until September 29, but the defendants still acted upon the notice with regard to the plaintiff, and appointed Dr. Claye Shaw his successor. All this, it was alleged, had been done entirely from party motives, a new Board of Guardians having been elected during the plaintiff's tenure of office. The facts stated on behalf of the plaintiff were not disputed. The defence was that no legal contract had ever been made, as all contracts made with corporate bodies must be under seal; and that the statement made by the chairman did not bind the Board; consequently, the notice was valid. His Lordship said that as there were no facts in dispute, there was nothing to go to the jury. The plaintiff must therefore be nonsuited, but with leave to move the Court to set aside the nonsuit and enter a verdict in his favour for the full amount claimed, subject to the points of law reserved.

TESTAMENTARY CAPACITY.

The difficulty of solving the question of a testator being "of a sound disposing mind" has perhaps never before been presented in such a singular and perplexing form as in the case of the late Major Nisbet, whose will has recently been the subject of dispute in the supreme courts of Scotland. These courts have sustained the validity of the will, although it was made and executed by the testator while an inmate of a lunatic asylum, and only two months before his death, no announcement of his recovery of mental health having been made either to his friends or the authorities, and no step having been taken for his removal from the asylum. Almost all the Medical men who from time to time visited and examined him during the nine years of his restraint expressed their opinion of his recovery being almost hopeless. The Court of Session has, however, found that, though the best Medical opinion may unanimously declare recovery to be impossible, that opinion must nevertheless yield to *fact*, and the judges have unanimously declared that in this case the fact of the recovery has been proved by the evidence of Medical witnesses who subsequently and specially examined the testator about the time of the execution of the will, and by the circumstances attending its execution, as well as by the rational character of the will itself. This evidence seemed to be supported by the Medical gentleman under whose care the testator was, who, only five days before the will was made, made his first entry in the books of the asylum that the patient had recovered from his nine years' attack of insanity. There was, also, other Medical evidence, to the effect that the recovery had taken place at the time of making the will, and, according to some, for three or four weeks before; but the general tendency of the evidence was to fix the recovery at a point of time remarkably close to the date of the execution of the will. It was, however, proved that the will, a most rational one, had been drawn up from instructions written by the testator himself, and which were so clear and well expressed that the adverse Medical witnesses were obliged to admit that "if the testator wrote those instructions he was sane when he wrote them."

The case of Major Nisbet is a most instructive one upon the point that not only is a speedy recovery possible in a long-standing case of insanity, where recovery had been declared by competent Medical men to be hopeless, but such recovery is capable of distinct proof to the extent of giving effect to a will whose execution followed so closely upon recovery.

PAST CHILD-BEARING.

The Court of Chancery seems to have arrived at something like a definite conclusion as to the age at which a woman may be presumed to be past child-bearing. *In re* Widdow's Trusts (40 Law Jour. Rep., N. S., 380), Vice-Chancellor Malins made an order for payment out of Court of two sums to two ladies respectively. One of the ladies was a widow, past 55; the other a spinster, aged 53 and 8 months. In both cases the parties were entitled absolutely, subject to the contingency of having children. In a more recent case (Conduitt *v.* Soame), Vice-Chancellor Wickens declined to act upon the presumption where the lady was in her 53rd year. Fifty-three appears to have been the earliest age at which the presumption had ever previously been acted upon (see Forty *v.* Forty, before Vice-Chancellor Kindersley, February 11, 1853). In that case, though the lady was unmarried, security was taken for the repayment in the event of her having lawful issue. We may therefore consider the question as definitely settled, that in such cases the lady must have passed the age of 53 years. It is difficult to understand upon what theory the Court of Chancery has proceeded in making this presumption. Medical science and the statistics of Medical jurisprudence afford no certain data on which such a presumption can fairly be based. Numerous instances are on record of women far more advanced in life bearing children. Vice-Chancellor Wickens seems to have taken the safe course in refusing to go beyond the existing precedents.

VACCINATION ACT.

A case of considerable importance under the Vaccination Act, 1867 (Reg. *v.* Bovett), has been tried at the recent Bridgwater Sessions, before the Recorder, which will extend the means of enforcing the provisions of the Act. The 31st section provides that a justice, on being duly informed that a child under 14 years of age is not vaccinated, "may summon the parent or person in whose custody such child is, to appear with such child before him at a certain time and place," and the justice may then, if the child is not vaccinated, order it to be vaccinated. The same section also provides that if the parent or such person neglect to obey such order for vaccination, and shall not show good cause or excuse, he shall be liable to a summary conviction in a penalty of twenty shillings. The penalty, however, can only be inflicted for disobedience to the order to vaccinate, and not for disobedience to the order to appear with the child before the magistrate. The defendants in the case had refused to appear and to produce the child, and were therefore proceeded against by way of indictment at common law, for a misdemeanour in refusing to obey an order of justices duly made under a statute, and the learned Recorder held that this indictment was good. Although it was decided in the Court of Queen's Bench so recently as only May 9 last that the production of the child before the magistrate was not a condition precedent to the making of the order for vaccination, and that the order might be made notwithstanding the absence of the child, provided the magistrate was satisfied on the evidence that the child had not been vaccinated, and was within the statutable age (Atkins *v.* Dutton, 24 L. J. Rep., N. S., p. 507), this will not exonerate the person having charge of the child from the consequences of disobedience to the statutory duty imposed upon him, and he would in such case be liable to an indictment for refusing to produce the child, even though he might attend himself before the magistrate, as was the case *in re* Atkins *v.* Dutton. Under the 20th section of 6 & 7 Wm. IV., c. 86, it is enacted that "every father or mother of every child born . . . shall, within forty-two days of the day of every such birth, give information, on being requested so to do, to the said registrar . . . as to particulars of such birth." It was held in Reg. *v.* Price (11 Ad. and Ell., 727) that a parent, on being so requested to give information and refusing to do so, could be indicted for a common law misdemeanour, as there was a statutory duty imposed upon him. The same principle is involved in cases of disobedience under the Vaccination Act, the disobedience being in fact aggravated as an act of disobedience not merely of a request, but to a statutory order (or summons) of duly constituted magistrates.

OBITUARY.

THOMAS HAWKES TANNER, M.D., F.L.S.

(*From a Correspondent.*)

In the premature death of Dr. Tanner, which took place on the 7th inst., we have another illustration of the fate which too commonly befalls the most successful of our Profession. It seems but a few years ago that the name of Tanner became, as it were, familiar as household words; and when at the zenith of his fame, in the full flood of success, and just beginning to reap the rich rewards of his gallant struggle, he is cut down like a flower, and his life sacrificed by the very means by which he strove to make that life a success.

Thomas Hawkes Tanner, the son of Thomas Tanner, who was for many years Secretary to the Army Medical Board, was born on July 9, 1824, and received the greater part of his education at Charterhouse. In 1843 he entered as a student in the Medical Department of King's College, London; and at King's College Hospital he gave early promise of that which was to be the distinguishing characteristic of his future career, and the groundwork of his success as a Practitioner, in the number and character of the appointments which he held, being successively in- and out-patient dresser, clinical clerk, and finally House-Physician, in which latter capacity he won the friendship and admiration of that greatest of clinical teachers, Todd, from whom he learnt what proved to be the chief source of his success in after-life—careful and painstaking observation of disease, and sound views in his treatment of it. At the termination of his career as a student he was elected an associate of King's College, and having obtained the membership of the Royal College of Surgeons, and the degree of M.D. at the University of St. Andrews, he commenced practice in Charlotte-street, Bedford-square, in the year 1847. He was soon afterwards elected Physician to the Farringdon General Dispensary, and in 1850 he became a member of the Royal College of Physicians. In 1851 he was elected Physician to the Hospital for Women in Soho-square, and from that time he appears to have devoted his attention more particularly to the study of gynæcology, though at the time he was also Lecturer on Forensic Medicine at the Westminster Hospital Medical School. In 1858 he took a very prominent and active part in the foundation of the Obstetrical Society of London, of which he was one of the first secretaries; and much of the success of that Society during its earlier career was undoubtedly due to his energy and perseverance, for an indomitable pluck and a determined will were two of the distinguishing traits in Tanner's character, which contributed in no slight degree to his success in overcoming the many difficulties which beset the path of a self-made man. At the conclusion of his Secretariat, Tanner was elected one of the Vice-Presidents of the Obstetrical Society; he was also a corresponding Fellow of the Academy of Surgery of Madrid. In 1860 the Council of King's College determined to appoint two Assistant-Physicians for the diseases of women and children at the Hospital, and Dr. Tanner was appointed, together with Dr. Meadows, to that office. This appointment he resigned in the year 1863, having previously given up all his other public duties, as his practice now began to increase so rapidly, that with the literary work to which he now assiduously devoted himself, and which, no doubt, contributed largely to bring about the disease of which he finally died, his time was more than occupied, and he had little opportunity for that pleasure or recreation which might have prolonged his life.

Dr. Tanner will probably be remembered hereafter more as an author, although he was equally successful as a practical Physician. As a writer, judged by the popularity of his works, as evidenced by the large and numerous editions through which they have passed, he has, we believe, been unequalled. In 1854 he wrote the first edition of his "Manual of the Practice of Medicine," and, if we be rightly informed, few works on Medicine have ever met with so much success; its popularity has increased with each edition and addition to its size and price; originally a small pocket manual of three shillings and sixpence, it has at last reached its sixth edition, in two large volumes, at nearly ten times the original cost. In addition to this he was the author of a work on the "Signs and Diseases of Pregnancy," and of a "Practical Treatise on the Diseases of Infancy and Childhood," besides smaller works on "Clinical Medicine," an "Index of Diseases," "Memoranda on Poisons," a "Clinical Report of Cancer of the Female Sexual Organs," and papers in various journals, transactions of societies, etc.

Dr. Tanner has at great cost, and with much labour, care, and thought, collected a magnificent library, many of the books being very rare and costly. He was, himself, very fond of general literature, and his library is in many respects unique. His writings fairly reflect the character of his mind: wide in scope, comprehensive in grasp, they give evidence of vast study, of careful thought, matured judgment, and, at the same time, of great practical application.

In his social relations, it is not too much to say of Dr. Tanner that those who knew him best loved him most; he was warm-hearted, generous, kind, a man full of deep sympathies, being always ready to lend a helping hand to friend or stranger, wherever he saw distress or anxiety and had it in his power to allay it. Among his patients, rich and poor alike, he was loved as a true friend, and respected as a wise counsellor. For several years he had suffered from slight symptoms of renal disease, following an attack of scarlet fever in 1854, which latterly became more strongly marked; but it was not until about two months before his death that his condition began to cause anxiety, and he was compelled to relinquish his Professional duties. Still it was hoped that rest and freedom from all anxiety would restore him at least to partial health. This, however, was not to be; symptoms of uræmia set in, which were speedily followed by convulsions, and after several weeks of great suffering, he died on the 7th inst., being within two days of his 47th birthday. He was buried at Highgate on Thursday, the 13th inst., and leaves a widow and four children.

JOSEPH GOODALE LANSDOWN,

A NATIVE of Bristol, born in 1804, educated at Tiverton Grammar School, apprenticed to the late Mr. Henry Daniel. He commenced his Professional career at the Bristol Royal Infirmary; he then went to St. Bartholomew's and Aldersgate-street School; and obtained his diplomas in 1827-28. After visiting the Continental Hospitals he settled in Bristol, and was elected one of the first Surgeons to the Bristol General Hospital in 1832, an office he held until 1861, when he was appointed Honorary and Consulting Surgeon. He was a skilful operator, and one of the first to use anæsthetics in Surgery. In midwifery he used chloroform extensively. He was devoted to his Profession, and worked unceasingly at a large practice. He made some short communications on anæsthesia in its early days to some of the journals; but his time was so fully occupied that he rarely put his thoughts on paper. He seldom took a holiday, but worked without intermission, until the end of 1870, when he was obliged to retire, owing to the encroachments of a large thyroid tumour, which so compressed his trachea as ultimately, on July 6, to cause his death. He was a man of genial disposition, beloved by a large circle of patients and friends.

ARTHUR WILLIAM DUMVILLE, F.R.C.S., L.S.A.,

WAS one of the Consulting Surgeons to the Manchester Royal Infirmary. He died at his residence, Ardwick-green, on the 8th inst., in his 59th year. He was educated at the Manchester Grammar School. He was a pupil of Dr. Smith's, and served his apprenticeship under the late Mr. Fortington. He had been ailing for the last eighteen months, but his illness did not assume a serious aspect until three months ago.

CHOREA OF THE TONGUE FROM EMOTION.—M. Amédée Latour, describing the bombardment of Chatillon, thus speaks of its effects on himself—"During the first days I had tremblings at every discharge of cannon, together with strong and frequent palpitations of the heart and tremor of the hands. My tongue was seized with a kind of insupportable chorea, which, indeed, I have often experienced on the occurrence of vivid emotions, of which, during my life, I have had my share. It is a strange phenomenon, which I have seen nowhere described. The muscles of the tongue are seized with convulsions, which cause the organ to execute irregular movements to the right and left, fix it against the palate, or curve it back on the frænum—keeping it in constant motion, and occasioning a most unpleasant and irritating sensation. Speech is impeded, and articulation painful, so that it is impossible to read aloud, and to converse is a matter of difficulty. These lingual movements are entirely independent of the will, which can neither arrest nor modify them whatever effort be made. Sleep suspends them; but they reappear soon after waking. This inconvenience lasted during the first week, but after then, as I became accustomed to the noise, the lingual and cardiac muscles resumed their normal action."—*Union Méd.*, July 6.

MEDICAL NEWS.

Royal College of Surgeons of England.—The following gentlemen passed their Primary Examinations in Anatomy and Physiology at a meeting of the Court of Examiners on the 18th inst., and, when eligible, will be admitted to the Pass Examination:—

Bell, G. Warner, student of University College.
Burton, J. Randell, of Guy's Hospital.
Church, H. Macdonald, of the Edinburgh School.
Cory, Frederic W., of the London Hospital.
Douglas, S. William, of University College.
Erith, W. E. N., of University College.
Fair, R. Campbell, of Canada.
Fitzpatrick, Matthew J., of Dublin.
Foster, W. C. K., of University College.
Hinchcliff, Edwin, of the Edinburgh School.
Inlach, Francis, of the Edinburgh School.
Irving, J. Christopher, of Guy's Hospital.
Jennings, John D., of the Birmingham School.
Johnson, Francis, of the London Hospital.
Kirby, Albert E., of the Leeds School.
Ritchie, James, of the Edinburgh School.
Steil, George R., of University College.
Stowers, James H., of St. Bartholomew's Hospital.
Stuart, John B., of the Liverpool School.
Vouse, Arthur J., of the Leeds School.

The following gentlemen passed on the 19th inst.:—

Barber, Oliver, of University College.
Boddy, Evan M., of Guy's Hospital.
Bradford, Peter, of University College.
Bridges, R. Seymour, B.A. Oxon., of St. Bartholomew's Hospital.
Collins, W. C. G., of St. Bartholomew's Hospital.
Davenport, William Y., of Guy's Hospital.
Dawes, Richard St. M., of University College.
Eskell, Maurice, of University College.
Grindrod, Charles F., of St. Mary's Hospital.
Groves, H. J. F., of Guy's Hospital.
Hart, John M., of St. Bartholomew's Hospital.
Hartley, Charles, of the Charing-cross Hospital.
Holden, Lonsdale A., of St. Bartholomew's Hospital.
Hughes, Richard D., of Guy's Hospital.
Lang, Henry C., of University College.
Moffatt, G. T. B., of St. Bartholomew's Hospital.
Nunez, Daniel, of Guy's Hospital.
Rugg, Harold, of University College.
Symons, J. G. R., of University College.
Townend, Joseph H., of Guy's Hospital.

The following gentlemen passed on the 20th inst.:—

Atkinson, Francis E., of St. Mary's Hospital.
Blackburn, Herbert B., of Guy's Hospital.
Coulter, William, of the Belfast School.
Ellis, Hyacinth D'A., of Birmingham.
Ford, Montague, of the Charing-cross Hospital.
Gard, William J., of Guy's Hospital.
Gibson, H. C. M., of University College.
Gray, T. W. F., of the Charing-cross Hospital.
Greenwood, John W., of St. Thomas's Hospital.
Grogono, W. A., of the London Hospital.
Heddy, W. Jackson, of Guy's Hospital.
Johnson, C. G., of St. Thomas's Hospital.
Keer, George E., of Guy's Hospital.
Kirkpatrick, Arthur, of the Liverpool School.
Lakin, Charles, of Birmingham.
Llewellyn, Rees R., of the London Hospital.
Mayor, W. S., of St. Thomas's Hospital.
Messiter, Matthew A., of Birmingham.
Pridmore, Campbell W., of the Westminster Hospital.
Redman, Edwin M., of University College.
Samuels, Robert F., of the Liverpool School.
Sinclair, Daniel A., of St. Thomas's Hospital.
Vawdrey, Theophilus G., of University College.
Welchman, E., of St. Thomas's Hospital.
Wherry, G. E., of St. Thomas's Hospital.
Wilkins, J. Sutherland, of Guy's Hospital.

College Examinations.—It is stated that at the Primary Examination for the diploma of Membership of the Royal College of Surgeons, which was brought to a close on the 20th inst., 109 candidates presented themselves, and of this number 45 had been rejected (and some of them more than once) at previous examinations. On the present occasion 16 were rejected on the first day, the same number on the second, and on the third and last day, 11, making a total of 45 out of 109. The Pass Examination commenced yesterday, when upwards of 100 candidates presented themselves.

Apothecaries' Hall.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, July 13, 1871:—

Briggs, Henry Myddleton, Birmingham.
Lyons, Isidor Isaac, St. John's-wood.
Richards, George Pickering, Newman-street, Oxford-street.
Rix, Benjamin, East Mion, Hants.
Thornton, William Pugin, Canterbury.
Williams, Edward, Llandyssul, South Wales.

As Assistants in Compounding and Dispensing Medicines:—

Gould, Eli, Reddal-hill, near Dudley.
Holmes, Nathaniel W., Chorlton-on-Medlock.
Pollard, William, Wakefield.

The following gentleman also on the same day passed his first Professional examination:—

Garrard, William Arthur, Guy's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Booth, E. J. H., M.R.C.S. and L.S.A.—Medical Officer to the Mirfield District of the Dewsbury Union.

Brown, Mr. James—Assistant Resident Medical Officer to the Leeds General Infirmary, *vice* Mr. John Snell, resigned.

Buckley, Dr.—Medical Officer and Vaccinator for the Clane and Timahoe North Dispensary District of the Naas Union, co. Kildare, *vice* Dr. O'Sullivan, deceased.

Crosskey, Walter Francis, M.D. Glasgow, and C.M.—Medical Officer for the Workhouses and the Lower District of the Lewes Union.

Morrill, Arthur Horatio, M.R.C.S. Eng., L.S.A. Lond.—Resident Surgeon to the Branch Dispensary of the Cheltenham General Hospital and Dispensary, *vice* John Humphreys, M.R.C.S. Eng., L.S.A. Lond., resigned.

Palfrey, James, M.D.—Physician-Accoucheur to the out-patients at the General Lying-in Hospital, *vice* Alfred Meadows, M.D., resigned.

Pierce, Francis, M.B., M.R.C.S. Dub.—Medical Officer to the Upton District of the Wirral Union.

Pogson, William, M.R.C.S. Eng., L.R.C.P. Edin., and L.M.—Medical Officer for the Templenewsam District of the Hunslet Union.

Reid, Dr. John Henry—Medical Officer to the Kilkeel Dispensary District No. 2 of the Kilkeel Union.

Roe, John Richard, L.R.C.P. Edin., L.M., etc.—Medical Officer to the Fourth District of Bridgnorth Union.

Scott, W. G., M.B. and C.M. University of Edinburgh—House-Surgeon to the Blackburn and East Lancashire Infirmary, *vice* R. A. Morrish, M.R.C.S., resigned.

Scully, John, L.D.S.—Assistant Dental Surgeon to the Dental Hospital of London.

Thursfield, William, M.D. Aber., L.R.C.P. Lond.—Medical Officer to the Third District and Workhouse, Bridgnorth.

Turner, James Smith, M.R.C.S. and L.D.S., Assistant Dental Surgeon to the Middlesex Hospital—Lecturer on Mechanical Dentistry at the School of Dental Surgery, Dental Hospital of London.

Wilson, Henry, F.R.C.S.I.—Junior Surgeon to St. Mark's Ophthalmic Hospital, Dublin.

Workman, Charles J., M.D.—Ophthalmic Surgeon to the Teignmouth, Dawlish, and Newton Infirmary.

BIRTHS.

Anstie.—On July 11, at 16, Wimpole-street, the wife of F. E. Anstie, M.D., of a daughter.

Blandford.—On July 15, at 71, Grosvenor-street, Grosvenor-square, the wife of G. Fielding Blandford, M.D., of a daughter.

Bodos.—On July 14, at Paris, the wife of Alexander Boggs, M.D., late of her Majesty's Indian Army, of a daughter.

Houston-Dawson.—On July 10, at 9, Carlton-terrace, Kilburn-park, the wife of S. Houston-Dawson, M.D., of a son.

Kortegarn.—On July 11, at Bonn, Prussia, the wife of Dr. Arthur Kortegarn, of a son.

Reid.—On July 14, at Melville House, Pembroke, the wife of Douglas A. Reid, M.D., J.P., late 90th Light Infantry, of a son.

Sands.—On July 15, at 5, Gordon-cottages, Holland-road, Brixton, the wife of John Lee Sands, M.D., R.N., H.M.S. *Excellent*, of a daughter.

Wright.—On July 8, at the Hollies, Summer-hill, Birmingham, the wife of M. Hall Wright, M.R.C.S., of a son.

MARRIAGES.

Ayres—Ridley.—On July 15, at St. James's Church, James William, eldest son of the late Alfred Charles Ayres, Surgeon, of Ramsgate, to Clara Ernestina, second daughter of William Ridley, Esq., of Moore Park, Middlesex.

Buckley—Wilson.—On July 13, at Walcot Church, Bath, Henry Child Buckley, M.D., of Bradbury Hall, Llanelly, Carmarthenshire, to Maria Isabella, eldest daughter of James Wilson, F.R.S.A., of Glen Avon, Bath.

Geddes—Bury.—At the Register Office, District of St. Pancras, and, on July 13, at the Positivist School, Chapel-street, Bedford-row, James Geddes, of the Bengal Civil Service, to Emily, youngest daughter of the late John Bury, of Coventry, Surgeon.

Houghton—Ransome.—On July 13, at the parish church, Flixton, Cecric Houghton, Esq., of Preston, to Gertrude, youngest daughter of the late Joseph Atkinson Ransome, F.R.C.S., Consulting Surgeon to the Manchester Infirmary, of Ashawe Hall, Flixton, and St. Peter's-square, Manchester.

Peppin—Heroman.—On July 12, at Walcot Church, Bath, Henry Cole Peppin, Staff Assistant-Surgeon, second son of the late Arthur Bedford Peppin, Staff Assistant-Surgeon, of Trinchinopoly, to Agnes Clara, second daughter of James Herdman, Esq., of 11, Camden-crescent, Bath.

Roberts—Robinson.—On July 18, at the parish church, Bolton-le-Moors, Frank Wereat Roberts, Ivy Lodge, Castlenau, Barnes, to Margaret Agnes, younger daughter of the late J. M. Robinson, F.R.C.S., of Bank House, Bolton.

Robertson—Norton.—On May 12, at St. Peter's Church, Melbourne, — Robertson, M.R.C.S. Eng., of East St. Kilda, near Melbourne, to Joanna Kate, only daughter of Charles Norton, Esq., Melbourne.

TEEVAN—ROBINSON.—On July 11, at Christ Church, Kensington, William Frederic Teevan, F.R.C.S., eldest son of the late William Teevan, Esq., of Bryanston-square, to Georgina, eldest daughter of the late Francis Robinson, Esq., of Windsor.

TINSON—ARNOTT.—On July 12, at St. Stephen's Church, Gerald Edward Tinson, Esq., of Clevelands, Cheltenham, to Emily Sophia Helen, youngest daughter of Dr. James Arnott, of 8, St. Stephen's-crescent, Westbourne-park.

DEATHS.

GRAHAM, ROBERT BUCHANNAN, Surgeon, at Embledon, on July 13, and Eleanor Jane Isabella, wife of the above, on July 8, aged 33.

LEE, LEONARD JOHN, M.R.C.S., late of Bishopsgate-street Within, City, son of the late Joseph Lee, Esq., of Devonshire-square, at St. Brelade's Bay, Jersey, on June 25, in his 32nd year.

MILES, Dr. HERBERT ERASMUS, Surgeon of the Royal Artillery, only surviving son of John Miles, M.D., Easthourne, at Colaba, Bombay, after a short but severe illness, on June 16, aged 38.

MOUNCEY, JAMES AINLEY, Surgeon, third son of the late James Mouncey, Esq., of Salford, at Walworth, on July 16.

REYNOLDS, WILLIAM, Surgeon, at Odun Hall, Appledore, North Devon, on July 16, aged 50.

STOKES, SUSANNAH, the beloved wife of J. M. Stokes, M.D., of Melbourne, at Wellington, New Zealand, at the residence of R. Stokes, Esq., on April 25.

WATTS, GEORGE, Surgeon, at Thatcham, on July 16, aged 71.

WHITELAW, WILLIAM PETER, second son of W. Whitelaw, M.D., at Kirkintilloch, N.B., on July 11, suddenly, aged 2 years and 5 months.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN.—Resident Medical Officer; must be duly qualified and registered. Applications and testimonials to the "Medical Committee," on or before August 3. Election on August 7.

BRADFORD INFIRMARY AND DISPENSARY.—Physician; must be a Graduate in Medicine of the Universities of the United Kingdom, or a Fellow or Member of one of the Colleges of Physicians. Applications and testimonials to Mr. Charles Woodcock, Secretary.

BURY, LANCASHIRE.—Resident Medical Officer wanted for the Dispensary. Candidates must be duly qualified. Applications and testimonials to the Rev. E. J. Smith, St. John's Vicarage, Bury, Lancashire, on or before July 25.

FARINGDON UNION.—Medical Officer for the Buckland District. Candidates must possess the qualifications prescribed by the General Orders of the Poor-law Board. The gentleman appointed may reside either within or out of the district. Applications and testimonials to Mr. J. Haines, Clerk, on or before July 25.

GENERAL HOSPITAL AND DISPENSARY FOR SICK CHILDREN, BRIDGE-STREET, MANCHESTER.—Resident Medical Officer; must have a Medical qualification and be registered. Applications and testimonials to the Secretary, on or before July 22.

GUISBOROUGH UNION.—Medical Officer for the Danby District. Candidates must have the qualifications prescribed by the General Orders of the Poor-law Board. Applications and testimonials to Mr. W. Wetherill, Clerk, on or before July 25. Election the same day at 2 o'clock p.m.

HEREFORD GENERAL INFIRMARY.—Resident House-Surgeon; must be M.R.C.S. and L.S.A. Applications and testimonials to T. Owen Fowler, Esq., Savings Bank, Hereford. Election on July 17.

HOSPITAL FOR SICK CHILDREN, 49, GREAT ORMOND-STREET.—Assistant-Physician; must be a Fellow or Member of the Royal College of Physicians of London. Applications and testimonials to be sent in on or before August 2.

HUDDERSFIELD INFIRMARY.—Physician; must be a Graduate in Medicine of one of the Universities of the United Kingdom, or a Fellow or Member of one of the Colleges of Physicians, and be duly registered. Applications and testimonials to John Marsden, Esq., Hon. Sec., on or before July 28.

HUDDERSFIELD INFIRMARY.—House-Surgeon; must have both Medical and Surgical qualifications, and be registered. Applications and testimonials to Mr. John Marsden, on or before August 14.

INFIRMARY FOR EPILEPSY AND PARALYSIS, CHARLES-STREET, PORTMAN-SQUARE, W.—Physician; must be a Member or Fellow of the Royal College of Physicians, London. Applications and testimonials to Mr. E. Watherston, Hon. Sec., on or before July 31.

METROPOLITAN FREE HOSPITAL, DEVONSHIRE-SQUARE, E.C.—Assistant-Physician; must be a Member of the Royal College of Physicians, or pledged to become such within twelve months. Applications and testimonials to Mr. Geo. Croxton, Secretary, on or before July 24.

MIDDLESEX HOSPITAL MEDICAL COLLEGE.—Lecturer on Physiology. Applications to the Dean on or before July 22.

ROYAL FREE HOSPITAL, GRAY'S INN-ROAD, W.C.—Junior House-Surgeon; must be M.R.C.S. Applications and testimonials to the Secretary on or before July 27.

SEAMEN'S HOSPITAL, GREENWICH.—House-Physician and House-Surgeon. Candidates for these appointments must have, at least, one qualification. Applications and testimonials to the House-Governor and Secretary.

WEST LONDON HOSPITAL, W.—Junior Physician; must be a Fellow or Member of the Royal College of Physicians of London, and not practising pharmacy. Applications and testimonials to S. Alexander, Esq., Secretary, on or before July 22.

POOR-LAW MEDICAL SERVICE.

APPOINTMENTS.

South Molton Union.—Richard Ley, jun., M.R.C.S. Eng., L.S.A., to the Ninth District.

Tamworth Union.—Edward Callaway, M.R.C.S. Eng., L.S.A., to the Tamworth District and the Workhouse.

Westbury-on-Severn Union.—Charles Whatmough, M.D. Edin., M.R.C.S. Eng., L.S.A., to the Fourth District.

UNIVERSITY OF DUBLIN.—SCHOOL OF PHYSIC IN IRELAND.—The Medical Scholarships have this year been awarded to—1. Andrew Clarke, Scholar of Trinity College; 2. George A. Pearce.

THERE will be a competitive examination of candidates for the Royal Naval Medical Service on August 9.

THE sum of £83 was distributed among the various claimants of the Naval Medical Compassionate Fund on the 11th inst. The meeting was presided over by Dr. J. W. Johnston, Inspector-General.

A CORRESPONDENT of a Bristol paper states that the son of Dr. Jenner, the nephew of the discoverer of vaccination, is now, through adverse fortune, living in a cottage with barely the necessaries of life.

AT the dinner in aid of the funds for providing furniture and fittings for the new St. Thomas's Hospital, which was held on Wednesday, £11,000 were subscribed. The sum required is £20,000.

LIME-JUICE AND SCURVY.—The owners of the barque *Lebanon*, Hartlepool, have been fined for not supplying the crew with a sufficient quantity of lime-juice, which caused a severe attack of scurvy.

PROCEEDINGS OF THE ROYAL COLLEGE OF SURGEONS.—From a report of the proceedings of the Council at its meeting on the 13th inst., which has just been suspended in the hall of that institution, it appears that a letter from Messrs. Wilde, the solicitors of the College, was read, inclosing, as requested by direction of the President, a copy of the conviction and of the sentence to six months' imprisonment of Frederick Henry Morris, admitted a Member of the College in 1856, and tried at Devizes on March 27 last for an indecent assault on Sarah Gould; whereupon it was resolved "That in the opinion of this Council the criminal offence of which Mr. Morris has been convicted is of such a nature as to render him unfit to remain a Member of the College, and that in pursuance of clause 3, section 17, of the by-laws relating to the misconduct of Fellows and Members, he be removed from being a Member of the College." It is understood that the delinquent has since been struck off the register of the General Medical Council. The other matters contained in the abstract have already been published in the *Medical Times and Gazette*.

A PHYSIOLOGICAL REVIEW OF THE LATE WAR.—M. Beaunis, Professor of Anatomy at Strasburg, thus prefaces a series of papers on the campaign of 1870-71 which he is publishing in the *Gazette Médicale*:—"Accustomed to a particular line of observation, I have sought to apply to this war the procedures of investigation which are most familiar to me, and have studied it as one studies a scientific problem or a serious malady. I have thought that the facts of the life of a nation are susceptible of analysis in the same way as we analyse the phenomena of the circulation in living beings, and by the same intellectual procedures. A physiologist by profession, I have thought that it may prove of utility to observe otherwise than as a moralist or a Christian the convulsions and agony of an entire people, just as in the laboratory we observe the agony of an animal in order to detect the hidden springs of life. . . . Is war, indeed, anything else than a *gigantic vivisection?* and may it not prove useful to investigate on the living the instincts, the interests, and the passions which are exposed naked in all their vigorous reality, and to observe at work all these hidden and powerful springs of action which are as regards social events what contractility and innervation are in physical life? A people is under certain circumstances a real disease, and the social *ataxy* is subjected like the morbid ataxy to certain fatal laws which must be known in order that order may be re-established. No Physician can regard this comparison as a strange one, and it would be easy to carry it to its furthest limits, still remaining within the strict truth. Does not France at this moment resemble, beyond the possibility of mistake, a convalescent from a grave fever? and has she not traversed all the phases of the disease?"

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Mr. John Forster, Clare, Adelaide, South Australia.—Your letter, with enclosure, received with thanks.

Rusticus.—We had thought everybody knew the composition of Condy's fluid. For long it has been no secret that it is a solution of manganate or permanganate of potass.

A. N.—The fee appears large, but regarding the distance, the time of night, and the urgency of the case, we think it a reasonable charge.

A Fellow of the Society.—The Lettsomian Lectures were founded some years since, and they are delivered annually by some one of the Fellows of the Society, selected at the annual meeting.

A Young Member.—There will be an examination for the Midwifery Licence of the Royal College of Surgeons on the 31st instant. It is doubtful when there will be another after that date, owing to the operations of the conjoint examinations to which you allude. See advertisement in this day's *Medical Times and Gazette*, and write to the Secretary.

Jacobus.—Wadd makes no mention of a miniature of Wiseman; there is an oil painting in the Council-room of the Royal College of Surgeons. Write to the Clerk of the Barber-Surgeons' Hall, Monkwell-street.

Pensioning Poor-law Medical Officers.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I hope this session will not be allowed to pass without something being done by the Government in the way of pensioning Poor-law Medical Officers, and I am quite sure the President of the Poor-law Board is anxious to help us. I therefore ask all my Medical brethren who are Poor-law Officers to write to the President during the next week, praying that we may be paid a pension out of the Consolidated Fund after twenty or twenty-five years' service, irrespective of age. The poor as well would be benefited by such an arrangement, for few of us can give the same attention to the poor after we have arrived at the age of 50 as we could when only 30. Hoping that you, as you always have done, will continue to lend us your valuable aid, I am, &c.,

Oswestry, July 18. Robert Williams.

Dr. R.—There will not be the slightest difficulty in obtaining permission to view the Par Consols Mine on addressing Major Davis, R.M., Fowey, Cornwall. From our experience of the great kindness and courtesy of this gallant veteran, he will give you and other members of the Association every facility when attending the annual meeting of the Association in the ensuing month at Plymouth. Dr. Arthur Davis, of Fowey, his son, will send you a report of the Cottage Hospital founded by himself on applying for it.

Plymouth.—The Board of Guardians of this town are at present in a state of excitement respecting their Medical officers. It appears that they have not only determined to reduce the number of these gentlemen, but also to diminish their pay—this, too, he it remembered, when the town contains a much larger number of inhabitants than when the Medical gentlemen now in office were appointed. The consequence has been that letters have been addressed to the Poor-law Board on the subject. These letters, after stating the facts, request the Board not to sanction the proposed alterations. One of these letters—an able one—is from Mr. Daniel M'Carthy, a guardian, who says at the conclusion of his communication—

"I may add that the number of our out-door paupers at present in Plymouth exceeds 3200. The population of the town is by the recent Census upwards of 66,000. For several years there have been four Medical officers to attend to the wants of the out-door; I and certain other guardians hold that if the present staff be reduced a great hardship will be inflicted upon the poor themselves, an injustice perpetrated against the Medical staff, and the best interests of the ratepayers sacrificed to a false and vicious economy."

The Board, after a long discussion, eventually decided to refer back the matter to the Relieving Officers Committee, to bring up a report in due time. It is to be hoped that the report will be of such a character as to prevent the guardians doing an act of injustice to the poor and the Profession.

Army Medical Department.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—We are a curious community—some getting in by a tremendous fluke, rest on their oars, never touching a book again; others, hard workers, Fellows of the Colleges of Surgeons, Doctors of Medicine of London, prize-men from Scotch and Irish universities, only requiring encouragement and substantial recognition to develope into skilful Surgeons and profound Physicians. With the advantage over London and provincial Hospital teachers, whose writings so greatly influence the readers of Medical literature, our rich fields of observation extend far and wide, and records amply testify that in science, as well as in outbreaks of fever and epidemic diseases, whether at home or abroad, we have not been found wanting. If the authorities were to improve the retirements, reduce the numbers, and increase the pay, willing horses would not only elevate the Army Medical Department, but also benefit the world at large by stimulating the zeal to learn, to practise, and to teach the difficult priceless secrets of our Profession. Allow me to introduce a water-drinking brain-picker, Donald McGrigor, in spectacles and gaiters, the personification of virtuous respectability, ever with a Blue-book under his arm: deservedly he rises to comparative eminence. Dr. Tupp is a puzzle—a hard-working, honest enthusiast; purchases every new book, has no pursuits otherwise; morning, noon, and night about the Hospital, even in his sleep dreaming of drains and diet-sheets, yet he is neither popular nor successful; fussy and tidgetty, the patients hate the sight of him. Tomkins, once in his pea-coat pardonably mistaken for the first lieutenant of a penny steamboat, a lawyer up to all the dodges of falling sick in emergencies, getting off foreign service and unpleasant duties, in spite of astute finesse, occasionally finds himself high and dry at Ragabag or Cholerapore. Scrivens is a theoretical Christian, great at refreshing meetings, revivals, and Dissenting tea-parties; distributes peculiar tracts about the wards, to the annoyance of the chaplain, but, as to legitimate work, on a par with the wily Tomkins. Potts, weighing twenty-six stone, knows every actor, tight-rope dancer, and waiter in creation; is an "Archangel in Freemasonry," a "Social Buck," an "Antediluvian Buffalo"; always in good spirits, kind, attentive; a clever Practitioner, with a wonderful memory; his entrance into the Apollo Music Hall is the signal for the chairman dropping the sacred hammer, to turn out three intimate friends to make room, and, respectfully taking charge of the "Doctor's" curly broad-brimmed hat, to place him in the seat of honour.

In conclusion, alas! alas! regardless of chewing a tooth-pick, knicker-bockers, and the youthful swagger induced by a galvanic belt and Mrs. Allen's hair-restorer, the raw recruit of a sentry, with unintentional irony, now invariably presents arms, under the impression that he is rigidly paying the compliment due to a venerable field officer instead of a

Junior Assistant-Surgeon.

The Alexandra Palace is, we hear, about to be opened on the tontine principle. Every subscriber has what are termed right certificates, to which are attached certain privileges, in proportion to the price paid. These include admission to the Palace and grounds, participation in art unions, giving a chance to each 21s. subscriber of securing five prizes of £500 each. In 1886 the whole property will be sold, and the proceeds divided amongst the tontineers. To provide against loss in the event of death, an insurance office has agreed, in consideration for the payment of 1s. on every 21s. right, to refund 20s. of every such guinea upon the death of the life so insured, should it occur before the close of the tontine. No subscriber, it is said, incurs any liability, as it is a trust matter.

Irish and English Systems of Poor-law Medical Relief.

The following is a letter addressed to Dr. Rogers, President of the English Poor-law Medical Officers' Association, by Dr. Maunsell, on the Irish and English systems of Poor-law Medical Relief:—

"1, Harrington-terrace, Dublin, July 6, 1871.

"Sir,—The question of Poor-law Medical relief is one not to be looked at merely as to how far it would benefit our Profession; to do so would be too narrow-minded. The course you have taken will, I venture to predict, prove successful, and benefit the poor, the public, and the Profession. I had the pleasure of meeting Mr. Corrance whilst over in Ireland, and I regret your countrymen do not come more frequently to visit us: perhaps we might be able to give some additional hints on other matters as well as on the Dispensary system. We entered very fully into the subject, and I think that the views of Mr. Corrance are in perfect accordance with mine. The subject is one which comparatively affects us but little, though it is true that half the Medical men of the United Kingdom are connected with Poor-law Administration in some way, and probably that 10,000 of us might have £100,000 additional added to our incomes; but the real consideration is, that the public would have a saving, from an economical point of view, of several millions, and I think that it can be proved. We do not even pretend to be as rich as you, yet our Poor-law expenditure for (say) 5,000,000 population, was but £815,973 for 1870, while yours for (say) 20,000,000, was, according to a return made at the instance of Sir Michael Hicks Breach, June 22, 1868 (the last that I can just now lay my hands on), £7,198,059, figures which do not include vaccination and registration expenses, which ours do; in fact, you pay, estimating comparatively the population, considerably over £4,000,000 more than we do. You can afford to do so, no doubt, as your Poor-law valuation is over £118,000,000, against ours of £13,000,000. Whether you wish to expend, or, rather, throw away, 4,000,000 a year is a matter for your own consideration. The faults of our system have been on many occasions referred to, and I caution you against them. A chief one is the indiscriminate issue of tickets. There are over 30,000 irresponsible persons qualified to issue tickets where and when they please to the 1000 Poor-law Medical Officers of Ireland. Not only this, but they allow their customers and members of their families to do so also. This leads to great abuse of the system, expenditure to the ratepayers, and injustice to us. In our Medical Charities Act there is no definition of the term 'poor person,' nor, indeed, could there well be, because there is an idea abroad that our fee is a pound, a whole pound, and nothing but a pound. How well founded a fact it may be I need not now discuss, but the result is an abuse of the issue of tickets to Dispensary Doctors in Ireland. This I know, however, will not obtain with your service. There are other subjects which I may have occasion to discuss with you in some subsequent letter, and in which both services may mutually help each other, such as the whole payment of your salaries by the State instead of half, as at present, increase of salary according to duration of service, and fixed superannuation. These are among the principal objects of our Association. The shortcomings of your Poor-law system, and the consequent expense of it, are, in my humble opinion, principally these. An idea has existed almost up to the present that existing pauperism was the only thing to be dealt with, and little notice has ever been taken of prevention of pauperism. This is what an efficient Poor-law Medical Service effects. The famine and fever of 1848 necessitated it in Ireland. I trust that such an impulse to reform may not be wanted in England, but that you may be obliged to introduce it from prudential motives. At present you appear, notwithstanding your enormous charities (estimated by the Bishop of London at £4,000,000 annually for London alone), to spend another £4,000,000 a year on poor relief that you need not—at least, that you do so in excess of the comparative expenditure for this country. Poor-relief comes under two heads in England, out- and in-door relief. In Ireland we have a third Law Medical Relief on a very well-arranged principle, but capable of improvement. Mr. Smith's return to the House of Commons, and the analysis which you have given of it at your annual meeting, July, 1870, gives a full account of our sickness and death-rate.

"Our Poor-law expenditure, which probably in the course of argument before the House of Commons will have the most weight attached to it, I give you. The abuse of out-door relief may be very great, and in the consideration of Poor-law expenditure is of the most vital importance. In 1817, in a debate on the presentation by Mr. Calvert of petitions from two parishes in Dorsetshire, complaining of the burden of the poor-rates, which in one accumulated to 19s., and in the other to 21s. in the pound, Lord Castlereagh expressed his conviction that in cases where 19s. or 20s. in the pound poor-rates were paid, 15s. of that would be found to be wages paid in the shape of poor-rates. For this reason the expenditure on out-door relief, if extended to the supplementing of wages, will form a very important item in Poor-law expenditure, and probably might be taken advantage of to a very considerable extent by that class of men from amongst whom Poor-law guardians are elected. Medical relief, however, is of another nature; it is open to us all to require it, and it can hardly be abused. With regard to the supply of medicines for our 1000 Dispensary Medical Officers, the cost is £32,000 a year. You number close upon 4000 men, and taking this into consideration, you appear to pay among you

£120,000 out of your salaries for medicines. Does this form another item in out-door relief? Men in our Profession are certainly no worse than those of other professions; but I do not see clearly why we should be expected to be so very much better, as apparently we are. Relieving officers are not expected to give food out of their own pockets—why should the Doctor give Medicine? It is possible, in some instances, out-door relief under your system is ordered when medicine only would be ordered under ours. With regard to the total number of persons admitted into our workhouses during the year 1870, I find it to be 183,135; expense in maintenance £381,844, or a little over £2 per head; of these but 49,749 were admitted in sickness. Out-door relief of 53,885 persons, at a cost of £59,101, or a little more than £1 a head; and 784,424, under the Medical Charities Act or Dispensary system, at 2s. 6d. per head. Under your system, in-door relief appears to cost over £8 per head, and out-door relief over £1 per head. I do not find any intermediate stage whereby the person is attended as under our Medical Charities Act. I find that you have Medical men connected with the Poor-law, whose salaries vary from £3 to £500 a year. It could not possibly be an object to any Medical man to hold the former appointment, except to keep some other person away, and the work is done, I presume, on the farm scale. There is one more remark it is necessary to make, and that is, that you have no permanent head as we have. Your registration, vaccination, and sanitation are split up—they are in different, and, I fear, very often in very discordant hands. If I might make a suggestion, it is that what you want is system and consolidation. You have, however, struck the note, which is, that until some improvement on the present Poor-law system of England is effected, money to the extent of some £4,000,000 annually will be completely thrown away. We will take care that all our members are informed of Mr. Corrance's motion, and will endeavour to interest them in it, as far as we can.

"I remain yours very truly,

"Dr. John T. Maunsell, Hon. Sec.

Poor-law Medical Officers' Association, Ireland.

"To Dr. Rogers, President Poor-law Medical Officers' Association, England."

COMMUNICATIONS have been received from—

Dr. Whitelaw; Mr. T. C. White; Dr. J. Fayrer; Mr. M. H. Waight; Mr. F. Durham; Dr. J. E. Neild; Dr. Cheadle; Dr. R. H. Barewell; Dr. A. Garden; Messrs. Stead and Co.; Rusticus; Mr. Lawson Tait; Mr. D. Hartley; Dr. G. Johnston; Mr. T. Burridge; Dr. R. Douglas Powell; Mr. F. T. Procter; Dr. Whitmore; Dr. Boggs; Messrs. Blacket and Son; Mr. Kempster; A Bayswater M.D.; Mr. F. Crace Calvert; Dr. Handfield Jones; Dr. Thomas Stretch Dowse; Mr. Morris; Mr. Jabez Hogg; Mr. J. Chatto; Dr. Henry Thompson; Dr. Day; Mr. T. M. Stone; Dr. Palfrey; Mr. T. Ashburn; Dr. C. J. Workman; Mr. R. Williams; Mr. Henry Wilson; Mr. T. Graham; Mr. J. B. Blackett; Dr. Phillips.

BOOKS RECEIVED—

An Experimental Research on the Antagonism between the Actions of Physostigma and Atropia, by Dr. T. R. Fraser—Public School Reforms, by M. A. B.—Dr. Austin Flint on the Physiological Effects of Severe and Protracted Muscular Exercise, with special reference to its Influence upon the Excretion of Nitrogen—On Bone-setting (so-called) by Dr. Wharton P. Hood.

PERIODICALS AND NEWSPAPERS RECEIVED—

Philadelphia Medical Times—The Daily News—Pharmaceutical Journal—Brighton Times—The Auckland Daily Southern Cross—Gazette Hebdomadaire—Mechanics' Magazine—Australian Medical Gazette—The Chemist and Druggist—Woodhull and Claflin's Weekly—Western Daily Mercury—The Melbourne Argus—New York Medical Journal—Saunders' News Letter—Medical Press and Circular.

APPOINTMENTS FOR THE WEEK.

July 22. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9¼ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

24. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.

25. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

26. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.

27. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; West London, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

28. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.

Quekett Microscopical Club, 8 p.m. Annual Meeting and the President's Address.

VITAL STATISTICS OF LONDON.

Week ending Saturday, July 15, 1871.

BIRTHS.

Births of Boys, 959; Girls, 945; Total, 1904.
Average of 10 corresponding weeks, 1861-70, 1980·9.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	639	620	1259
Average of the ten years 1861-70	697·6	629·2	1326·8
Average corrected to increased population	...	...	1459
Deaths of people above 90	...	...	...

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561189	8	4	15	2	9	...	2	...	11
North ...	751668	49	2	9	4	5	3	1	2	14
Central ...	333887	8	4	3	1	2	1	2	...	8
East	638928	18	3	...	2	4	2	2	2	15
South ...	966132	50	9	13	...	3	1	3	2	16
Total	3251804	133	22	40	9	23	7	10	6	64

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·759 in.
Mean temperature	61·7°
Highest point of thermometer	80·6°
Lowest point of thermometer	49·0°
Mean dew-point temperature	54·6°
General direction of wind	S.W., S.S.W., & W.S.W.
Whole amount of rain in the week	1·51 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, July 15, 1871, in the following large Towns:—

Borough, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1871.*	Persons to an Acre. (1871.)	Births Registered during the week ending July 15.	Deaths Registered during the week ending July 15.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3263872	41·8	1904	1259	80·6	49·0	61·7	16·50	1·51	3·84
Portsmouth ..	113450	11·9	66	26	75·2	47·4	58·9	14·94	1·92	4·88
Norwich	80533	10·8	43	22	79·5	48·0	61·3	16·28	0·51	1·30
Bristol	183298	39·1	111	68	...	...	...	...	...	...
Wolverhampton ...	68476	20·2	39	13	72·0	47·5	58·6	14·78	0·78	1·98
Birmingham ...	344980	44·1	227	149	71·0	48·3	58·7	14·83	1·10	2·79
Leicester	95882	30·0	70	42	77·2	46·0	60·7	15·94	1·11	2·82
Nottingham ...	86929	43·6	54	31	75·0	46·3	60·3	15·72	1·26	3·20
Liverpool	493649	96·8	316	257	72·2	50·6	59·4	15·22	0·91	2·31
Manchester ...	356099	79·4	237	184	73·0	47·0	58·9	14·94	0·58	1·47
Salford	125422	34·3	85	68	71·9	45·9	57·6	14·22	0·60	1·52
Bradford	146987	22·3	81	58	73·7	50·7	60·5	15·83	0·66	1·68
Leeds	260657	12·1	184	97	72·0	50·0	59·2	15·11	0·83	2·11
Sheffield	241507	10·6	170	109	73·0	48·0	59·5	15·28	0·36	0·91
Hull	122266	34·3	98	52	75·0	47·0	60·7	15·94	0·32	0·81
Sunderland ...	98797	29·9	85	91	...	...	...	...	...	...
Newcastle-on-Tyne	128677	24·1	92	61	69·0	54·0	59·8	15·44	0·33	0·84
Edinburgh	201728	45·6	133	101	72·7	48·0	59·1	15·05	0·20	0·51
Glasgow	479227	94·7	306	253	..	...	...	...	...	...
Dublin (City, etc.)	322321	33·1	157	103	74·9	45·5	59·9	15·50	0·31	0·79
Total of 20 Towns in United Kingd'm	7215757	33·8	4458	3044	80·6	45·5	59·7	15·39	0·78	1·98

At the Royal Observatory, Greenwich, the mean reading of the barometer in the week was 29·76 in. The highest was 29·90 in. at the end of the week, and the lowest was 29·43 in. on Tuesday.

* The figures in this column are the unrevised numbers enumerated in April last, raised to the middle of the year by adding 1-40th of the rate of increase which prevailed between 1861 and 1871; the numbers for Edinburgh and Glasgow have been furnished by the Registrar-General of Scotland, while those for Dublin are still the estimated numbers recently used.

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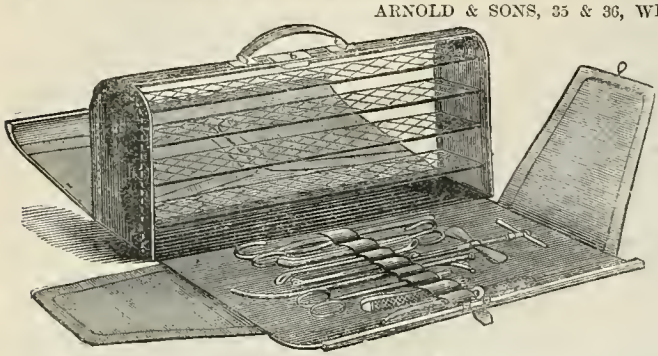

Extract from THE LANCET, April 22nd, 1871.

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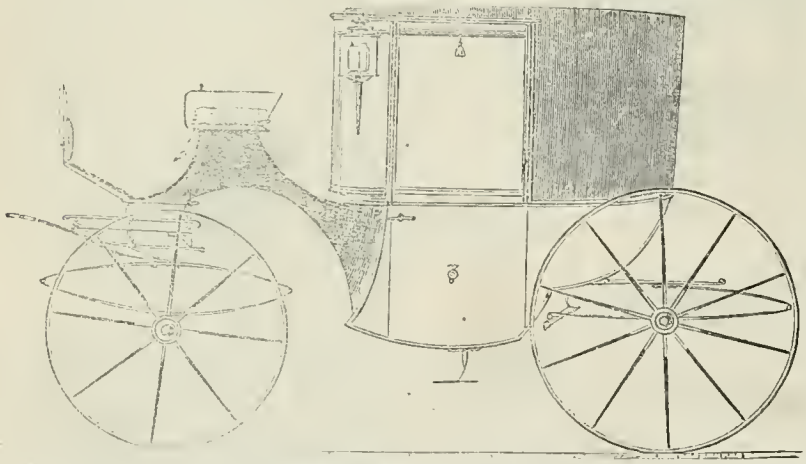

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ORIGINAL LECTURES.

CLINICAL LECTURE ON THE USES AND APPLICATION OF HODGE'S LEVER-PESSARY.

By ROBERT BARNES, M.D. Lond.,
Obstetric Physician to St. Thomas's Hospital; Examiner in Midwifery and the Diseases of Women to the University of London, the Royal College of Physicians, and the Royal College of Surgeons, etc.

Part I.

I am so frequently asked for some practical information as to the uses of Hodge's lever-pessary, and the manner of applying this invaluable instrument, that I have thought it useful to make the subject the text of one or two brief clinical lectures or demonstrations.

In studying gynæcology we are met by a serious obstacle: a great part of the work of exploration for diagnosis and of Surgical treatment is performed under the bedclothes or the dress; comparatively little is subjected to the faithful eyes. To impart, then, clear ideas of the nature of the diseases of the pelvic organs and of their management, it is absolutely necessary to resort freely to verbal description and illustrations by drawings. I have therefore taken some pains to construct a series of diagrams which will enable you to follow with full intelligence, step by step, I trust, the diagnostic and Surgical manipulations.

The morbid condition which the lever-pessary is especially adapted to relieve, is retroversion and retroflexion of the uterus. The more we reflect upon the great frequency of this condition, the distress it entails, and the general efficacy of the instrument in curing it, the better shall we estimate the debt of gratitude under which our distinguished American brother has placed us by putting this admirable contrivance in our hands.

It is right to premise that Professor Hodge extends the application of his lever-pessary to many other morbid conditions besides retroflexions of the uterus. I would not so much as insinuate that the Professor has ever so little given the reins to his hobby as to exaggerate the uses of his invention. I know from experience that it is often of great service in chronic metritis, especially in inflammation with engorgement and hypertrophy of the cervix, in vaginitis, and several other diseases. By counteracting prolapsus, by securing comparative "rest" of the organ, by maintaining it at its proper elevation, it tends remarkably to counteract congestion, to restore freedom of local circulation, and thus to promote the cure. But the special subject of the present lecture is retroflexion of the uterus. I will not now discuss the causes of this displacement; they form the subject of a controversy which will probably be carried on for some time to come. One camp contends that it is a primary condition entailing congestion, inflammation, and other evils; another camp contends that it is secondary, and produced by the congestion or inflammation which is often found associated with it. The rational course is to look at both sides of the shield. I have no doubt that retroflexion follows labour. The uterus remains bulky from imperfect involution, and the heavy fundus is driven back by the superincumbent pressure of the intestines; it may be the consequence of adhesions, the reliquiæ of peritonitis. The body of the uterus may in like manner be bent backwards by a tumour in its walls, by its bulk being increased by hyperæmia or hypertrophy, or by other morbid conditions. But close observation has convinced me that primary retroflexion is far more frequent. I meet with it frequently in women who have never had children or sexual relations. In fact, it is a frequent cause of sterility. In most, if not in all, of these cases I believe that the retroflexion is congenital. Until the advent of puberty, little or no inconvenience is felt; there is nothing to draw attention to the existence of the displacement. But when menstruation sets in, when the uterus under the ovarian stimulus grows and undergoes periodical engorgement, then trouble begins. The flexion at the neck aggravates beyond the physiological degree the menstrual hyperæmia of the body; the excretion of the menstrual discharge is impeded; a severe form of dysmenorrhœa becomes established; the bladder may become irritable; the enlarged body of the uterus projects into the rectum in the hollow of the sacrum, obstructing its canal like a ball-valve. Hence constipation, and gradual retrograde or ascending difficulty invades the whole alimentary canal; a degree of paralysis of the intestines ensues; coprostasis leads to decomposition of fæces in the intestine, to flatulence; then other dyspeptic evils follow: loss of appetite, attended, perhaps, by vomiting under the pain of dysmenorrhœa, blood-degradation, general impairment of nutrition. These surely entail disorder of the nervous system. Henceforth the patient's life is one of constant, or, at best, of intermittent suffering, under which she may break down altogether. You may exhaust the Pharmacopœia in treating the stomach, the liver, the brain, or the spinal cord; but so long as you leave the cause untouched, the patient will continue to suffer.

How are you to detect this cause? Let us first inquire what are the symptoms which indicate uterine or ovarian disorder? what are the symptoms which justify physical exploration of the pelvis? If you see dysmenorrhœa to a severe degree, attended or not by menorrhagia, followed by leucorrhœa; if you learn that the sexual function is endured with difficulty; if you see the patient's general health becoming impaired under the repeated suffering; and if you learn that ordinary general and local treatment, fairly tried, have failed to bring relief—I think myself, and I know that most patients will be of the same opinion, that you ought to ascertain the condition of the organs whose functions are performed with so much distress. The time has come to give up the vain chase of the disease through its consequences, and to apply our attention directly to the organs which are obviously at fault. I admit that general means, medicinal and hygienic, should have a fair trial. Not seldom dysmenorrhœa is relieved by time and mitigated by medicines; but, on the other hand, more often still, dysmenorrhœa and its consequent ills are intensified by repetition, until the local condition and the remote disorders, working in a vicious circle of action and reaction, become so firmly established as to imperil the success of any treatment. We assume, then, that the case calls for full clinical investigation. The finger and the uterine sound are the instruments of diagnosis. Direct touch necessarily precedes every other mode of examination. You feel, then, for the central point—the os uteri. In retroflexion or retroversion of the unimpregnated uterus this is generally found a little lower in the pelvis than is normal, and nearer the centre. In the natural state of slight anteversion the os uteri is directed backwards; in the abnormal state of retroflexion the os usually points downwards, perhaps a little forwards. Feeling the os, you of course ascertain its form and the condition of the intra-vaginal portion of the cervix. Associated with congenital retroflexion of the uterus, the vaginal portion is often found conical, and the os small and round, barely admitting a sound. Where this complication exists, something more than restoration of the body of the uterus to the normal position will commonly be required. But this subject may be put aside for the present. Your next step is to explore the roof of the vagina *in front of the cervix uteri*. Here, if the uterus is in normal condition, you may feel the solid rounded mass of its body through the vaginal wall; and, by combining the intra-vaginal touch with the extra-abdominal touch—that is, by pressing down with the other hand the abdominal wall above the symphysis pubis, so as to meet the finger inside—you may take note exactly of the position and size of the uterus between them; and if the uterus is not there, its absence will be made manifest. (See Fig. 1, p. 122, which represents anteflexion of the uterus.)

You next proceed to explore in like manner the posterior vaginal *cul de sac*. If you feel a hard, even, rounded mass *behind the cervix* through the vaginal wall, tender to the touch, you have strong presumptive evidence, strengthened by the absence of the body of the uterus from its normal position in front of the cervix, that this mass is the retroflexed uterus (see Fig. 2, which represents retroflexion of the uterus).

Rectal examination affords additional evidence. The finger in the rectum will even travel round the outline of this post-cervical tumour to a greater extent than can the finger in the vagina, and thus help materially the diagnosis. When by long practice you have acquired skill, you may be quite satisfied with this evidence. But this *tactus eruditus* itself is not acquired without a course of cross-testing by other methods; and to arrive at complete demonstration of uterine flexions the sound is necessary. Before passing the sound you must carefully consider the probability of pregnancy. In the great majority of single persons, and of those who have lived a married life for some years without children, the probability is strongly in the negative. The presumption is also in the negative in those who, having had children, seek relief from the consequences of retroflexion. Among these consequences is frequently acquired sterility. Two things help in forming an opinion: the date

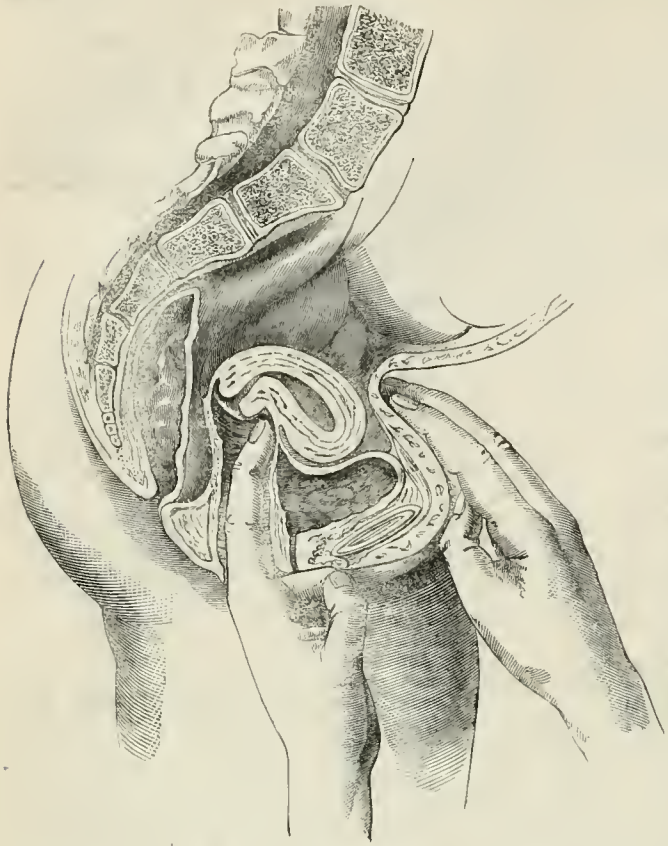

Fig. 1.—Anteflexion of the uterus. Diagnosis by combined intra-vaginal and supra-pubic touch.

of the last menstruation, and the bulk of the uterus. If the bulk be sensibly increased and a period have been missed, of course you will not use the sound. At the same time you will remember that increased bulk of the uterus is an almost constant attendant upon retroflexion. To pass the sound you give the end of it such a curve as the idea you form of the degree of flexion of the uterus may indicate. For example, if you feel the fundus of the uterus falling below the level of the cervix, and feel an acute angle of flexion, the curve given to the sound must be considerable. But in the majority of instances a moderate curve will be enough. And by a little manœuvre—that is, by lifting up the fundus of the uterus by your finger whilst the sound is passing the os uteri internum, the seat of chief flexion—you straighten the whole organ somewhat, and thus wonderfully facilitate the passage of the sound. The first stage of the introduction of the sound is best effected by passing the end into the os externum, as far as the os internum, with the concavity of the curve directed forwards; then turn the point backwards, so as to bring the concavity backwards, whilst the guiding finger lifts up the fundus. At the same time you must carry the handle towards the symphysis pubis (see Fig. 3).

When the sound has gone the normal length of two inches and a half, as measured by the protuberance, you may very gently—lest adhesions oppose—ascertain the mobility of the uterus by bringing the point forwards again, so as to place the uterus in anteversion. Your finger behind the cervix now loses the firm rounded body, which, carried forwards, may be felt by the hand outside pressed down upon the symphysis. On withdrawing the sound, the tumour behind the cervix is reproduced, that is, the uterus has fallen back again. Then the demonstration is complete.

It was at one time supposed that this restitution or *redressement* of the uterus by the sound, if repeated frequently, would cure the retroflexion; but experience

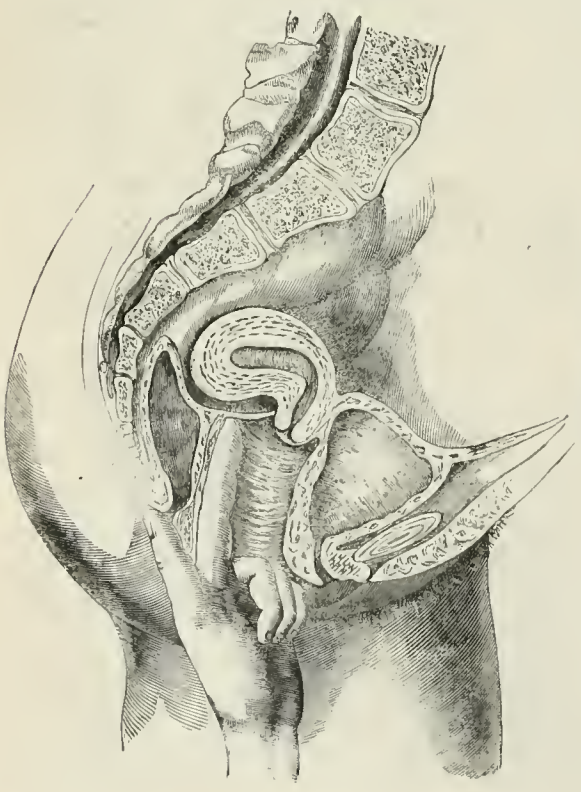

Fig. 2.—Retroflexion of the uterus. Diagnosis by intra-vaginal touch.

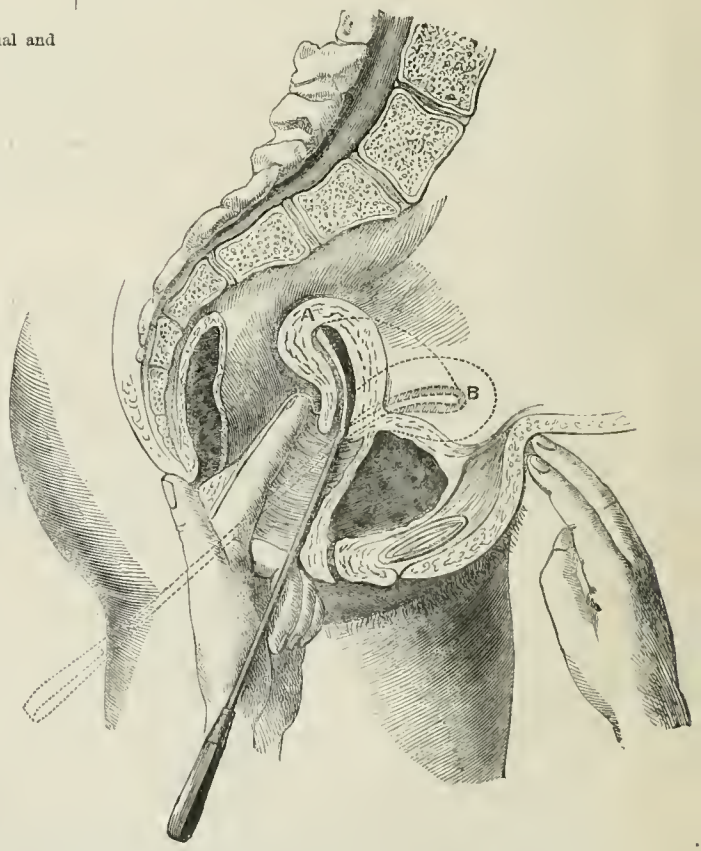

Fig. 3.—Diagnosis of retroflexion by the sound. On turning the sound with its concavity forward, the fundus of the uterus moves from A to B where it may be felt by supra-pubic touch

has proved this to be a delusion. Remove the sound, and the uterus commonly falls back again. Lift up the uterus gradually, as the lever pessary will do, extend the support it requires over a long space of time, and the structural change which is necessary for permanent cure will be effected. The action and mode of applying the lever-pessary we will discuss next time.

(To be continued.)

ORIGINAL COMMUNICATIONS.

CLINICAL REMARKS
ON THE SEVERAL FORMS OF PULMONARY PHTHISIS.

By R. DOUGLAS POWELL, M.D., M.R.C.P.,

Senior Assistant-Physician to the Hospital for Consumption and Diseases of the Chest, Brompton;
Assistant-Physician to the Charing-cross Hospital.

(Continued from page 7.)

Case of Catarrhal Pneumonia, non-hereditary—Significance of Fever and of the Signs of Softening; their Relation to one another—Gradual change in Physical Signs; Supervention of Pulmonary Fibrosis—A Second Case briefly Referred to—Further Progress of such Cases; a Hint as to their Management.

It will, I think, be most convenient to follow up the remarks upon the case described in the last paper by detailing one or two other cases which will serve to illustrate the transition, which not very unfrequently occurs, of pneumonic into fibroid phthisis. Bearing in mind the relation of the tissues to one another, which are affected in these two forms of phthisical disease, as pointed out in the first paper, we perceive that the transition of the one form into the other is pathologically very easy; it is also, I am persuaded, clinically often to be observed.

I do not mean for a moment to contend that all cases of fibroid phthisis commence as catarrhal pneumonia; the question as to the etiology of fibroid phthisis is not for the moment before us. I only wish to refer to catarrhal pneumonia as one of the several processes upon which fibrosis of the lung may supervene.

John B., aged 29, a butcher's assistant, came under my notice last March. He was a broad-chested, powerfully-made man, of medium height and florid complexion. He had led a rough but sober life, having followed his present business, which included the slaughtering of animals, for some years in Australia, and had enjoyed excellent health until shortly before Christmas, when, after getting wet, he caught a severe cold, which was followed by a cough, which has increased since and resisted treatment. Up to and at the time, however, of his attendance, he was still following his employment, but he now did so with difficulty, complaining of his cough and of increasing weakness, with decided emaciation. His father had died of consumption, brought on, the patient stated, by intemperance; there was no other hereditary tendency to the disease.

The chest, as before said, was broad and well-formed, without flattening or obvious impairment of expansion. The heart's apex beat in natural situation. At the left clavicular and subclavicular region the percussion note was dull, the dulness extending to the fourth rib; posteriorly, the resonance was defective at the left supra-spinous fossa. Scattered over the dull regions there was coarse crepitation, mingled with a still larger humid crepitus. These moist sounds were abundant, and masked to a great extent the respiratory murmur, which was decidedly harsh, but not distinctly bronchial. Its vesicular quality became gradually restored as the stethoscope was passed downwards. At the posterior base there were some scattered sibilant râles. On the right side the percussion note was good, and the breath sounds were natural.

The disease in this case began, then, with a cold on the chest —*i.e.*, a more or less general bronchial catarrh—which became localised(a) at the left apex, and extended there into the alveoli, producing catarrhal pneumonia; yet he continued his daily work, though constantly losing strength, for three or four months, during which time the catarrhal process ran on insidiously to a more deeply inflammatory degeneration of the alveolar walls. The disease had been acquired by exposure, the family tendency being very slight. The whole build of the chest was not that of a man who inherited any tendency to phthisis. The physical signs at the present stage show consolidated lobules of blocked alveoli, which are softening with varying degrees of rapidity; the coarse crepitation answering to the redux crepitation of pneumonia, the larger click being due to more profound destruction of tissue (softening).

There are two data defective in this history:—1. Fever. 2. Rusty sputa, or hæmoptysis. Though, however, the patient could give no definite and trustworthy information as to fever, we know for certain that he must have had intermittent attacks of fever; for it is a matter of clinical experience that we never get the signs of pulmonary consolidation and resolution or softening, dulness and crepitation, without there having been with each increment of pneumonia a period of elevation of temperature. A remarkable case well illustrating this occurred some two years ago in the Brompton Hospital under Dr. Sanderson's care, in which a woman had for weeks together daily attacks of fever of an intermittent character, and post-mortem one of the lungs was completely, and the other partially, consolidated by lobular pneumonia of different dates. The patient whose case we are now considering had, on the occasion of his first visit, a quick pulse and a somewhat red tongue, and though there was no elevation of temperature at the time, it is very likely that at night it was a little raised.

It is here, however, perhaps, well to remember that we may have dulness and large or small liquid rhonchus without there being any fever present at the time; the fever may have passed away, but the consolidation which accompanied the fever cannot disappear so rapidly, but must run through a series of pathological and chemical changes essential for its removal by absorption or elimination—changes which are not accompanied by fever, and which may proceed *pari passu* with the rebuilding of the frame exhausted by the previous fever. This reflection is of very great importance in a therapeutic point of view; for if, for instance, we were to treat ordinary basic pneumonia with antipyretics so long as the stethoscope revealed tubular breathing and moist sounds to be present, we should get results deplorable in direct proportion to our auscultatory skill; and this remark applies with equal force to the lobular consolidations and softenings of phthisis. We should be acting as foolishly, if we regarded them as indications for treatment of an antiphlogistic kind, as if we continued to wrap up our damaged water-pipes after the thaw had set in instead of hastening to adopt measures to repair the breach as soon as the frost had gone. Rusty expectoration is by no means a constant symptom of catarrhal pneumonia—not so constant, indeed, as it is of the croupous variety. It appears to depend partly on the degree of intensity of the pneumonia and the congestion with which it is attended, but also very largely upon the constitutional peculiarities of the patient.

To pursue the case, however, one step further. The patient was treated with an alkaline mixture containing small doses of iodide of potassium and with cod-liver oil. The next note of importance was taken on April 27, when the expansion of the left side of the chest was noted to be decidedly impaired, the dulness had increased in hardness but not in extent, and was very marked, especially between the left margin of the sternum and the mid-clavicular line. In the space marked out by these two vertical lines (left sternal and mid-clavicular) the respiration was extremely feeble, and not attended with any rhonchus; the heart's impulse was diffused to the second interspace, though the apex was only half an inch higher than natural. To the left, again, of the mid-clavicular line the respiration was still feeble, and the rhonchus much diminished, the dulness being somewhat increased. At the apex posteriorly there was bronchial respiration and imperfect pectoriloquy; the bronchial râles at the base had cleared up. The resonance of the right lung extended to the left margin of the sternum.

These signs showed—1. That the disease had not extended; on the contrary, the signs of bronchial irritation at the base had cleared up. 2. A wasting of the parenchymatous texture of the lung had taken place; degeneration, absorption, and expectoration had removed the morbid contents of the alveoli, and some of the lung tissue itself, leaving, perhaps, at the apex a small cavity; the general result being collapse and agglutination of air cells. Hence a considerable reduction in the bulk of the lung and the retraction of its anterior margin *away from the median line;* so that between the left sternal line and a line drawn from the point of junction of the inner and middle third of the clavicle to the apex of the heart there was probably at this date no lung at all. 3. An encroachment of the enlarging right lung, a slight shifting of the heart to the left, and a flattening of the chest wall to make up for the lost space. The chest-wall flattening is, however, very slight, and not yet

(a) This bare statement is a clinical one only. We find in almost all cases of phthisis one apex affected first. Why cachectic bronchial catarrh should so strongly differ in this respect from ordinary bronchitis remains a mystery, but the fact is not the less clinically important.

noticeable until the patient draws a breath. The man has powerful parietes, and in such cases the displacement of heart and encroachment of opposite lung precede, often for a long time, any obvious flattening.

It is remarkable with what rapidity these changes are taking place, and there can be no doubt that the connective tissue of the bronchial and perivascular and pleural sheaths is now undergoing rapid development, and that the case is now not merely one of catarrhal pneumonia which has subsided after having caused a certain loss of lung substance, but that an interstitial pneumonia is proceeding; the case has changed its type to one of peribronchial, or rather pulmonary, fibrosis, or fibroid phthisis (one variety). That the disease is not yet arrested is probable from the patient still losing slightly in weight and becoming more anæmic; but it is now clearly localised.

During the next month he lost two pounds. He was during this time taking an acid preparation of iron, with a little quinine and the oil. Notwithstanding this slight loss of weight, he had improved generally; cough and expectoration had diminished, and he felt stronger. On June 8 he was still better, and had gained one pound since last report. He had very little cough; all moist sounds had disappeared except a slight friction(?) on cough at the outer side and a little above the left nipple. He has since steadily improved.

Dr. Andrew Clark related at the Medical Society a few months ago (vide *Lancet*, May 6, 1871) a case very similar to the above. The subject of his paper, a boy of 14, had been a patient of mine at Brompton some five or six months before he came under the notice of Dr. Clark, and my view of the case was similar to that of Dr. Clark as to the condition present, which he described by the name "peribronchial fibrosis." But the case appeared to me, in its earlier stages, to be one of catarrhal pneumonia, undergoing the process of softening, upon which pulmonary induration supervened, in consequence partly of ordinary cicatricial collapse, partly from the vascular bronchial and pleural sheaths taking on an active growth. I should prefer to regard the case with that above described, as belonging to a section of the large class of pulmonary fibrosis, or fibroid phthisis, since, though in both cases there was undoubtedly at first more or less general bronchial catarrh, still it was the apex pneumonia, of an intensity sufficient to deeply affect the fibrous framework of the lung at that part, but not sufficient to lead to its destruction, which set going, as a subsequent result, that active hyper-growth which produced such important modifications in the morbid structure and physical signs. As I look upon this new disease, or phase of the disease, as affecting the whole framework of the portion of lung involved, I think the more general term pulmonary fibrosis a better one under which to include it.

This disease—fibrosis—has, I think, little or no tendency to spread beyond the limits of the original disease which gave rise to it, and, provided the patients are careful to keep up their general health, and to avoid fresh catarrhs, they do well. The indurated portions of lung usually enclose, however, some nodules of dry cheesy matter, and one or two small excavations, which are often the seat of a necrotic crumbling process, which continues for a long time without affecting the general health, merely causing a slight irritative morning cough. This process is, however, very favourable to the uncovering of vessels of considerable size, without their becoming obliterated by the coagulation of their contents. Small ectasias of these pulmonary branches, or even considerable aneurisms, are thus more apt to arise in these indurated lungs than in others, and the possibility of severe or fatal hæmoptysis must not be absent from our minds in framing a prognosis. Also, hæmoptysis occurring in cases of this kind must for the same reason be regarded with greater anxiety than in ordinary cases of phthisis.

There is only one special remark concerning the treatment of cases of phthisis which have assumed the fibroid character which seems called for, and it is this—that though such cases require careful *surveillance*, and for several years (where practicable) carefully selected climates to suit the different seasons of the year, they do not require the persistent administration of tonic medicines and cod-liver oil. They improve immensely under such remedies up to a certain point, which may be readily recognised by the Medical attendant, and cannot be better described than by saying that it amounts to the most perfect health attainable by a patient who has had a certain area of respiratory surface cut off. If beyond this point we persevere with iron and oil, and too nourishing or stimulating a diet, we may still further increase weight and heighten colour, but the pulse quickens, the patient gets more short of breath; he becomes, in a word, plethoric, and liable to pulmonary congestion and hæmoptysis, or dyspepsia and diarrhœa; and a rapid neutralisation of all the good results obtained, with great danger of fresh and perhaps fatal renewal of the old disease, is the consequence of too great anxiety, both on the part of the patient and the Doctor, to again arrive at a degree of health and bodily vigour which is impossible with a permanently damaged lung.

(*To be continued.*)

YELLOW FEVER IN THE RIVER PLATE.

By WM. NATHANIEL HIRON, L.R.C.P. Lond., M.R.C.S. Eng., L.S.A.L.;
Admitted to practise in Monte Video; ex-Surgeon-Major Argentine Army on the Medical Staff of the Popular Health Commission during the Epidemic.

The city of Buenos Ayres has been visited, during the latter part of January, February, March, April, and May of 1871 with a most severe epidemic of yellow fever. The same disease appeared during the latter part of 1870 in the city of Asuncion—capital of the Republic of Paraguay—where it raged with a certain violence. Cases of the same disease were observed in this city during the preceding summer, 1869-70, supposed to have been imported from Rio Janeiro. The town of Corrientes, capital of the province of the same name in the Argentine Confederation, and on the line of direct communication between Buenos Ayres and Asuncion, was most severely visited by the plague at the commencement of the present year. A few cases (less than a dozen) of this disease occurred in Buenos Ayres in the autumn (April) of 1870, during the time this disease was raging in Rio Janeiro, and were believed to have been imported thence; but the affection did not spread outside the hotel in which the cases occurred.

On the appearance of the disease in Buenos Ayres, a Medical man of Monte Video published in the journals of that city a statement expressing his belief that the affection was not the specific yellow fever, but a bilious remittent fever. Arriving in Buenos Ayres about this period, and desiring to assure myself about the real nature of the fever, I went daily to the lazaretto, and there saw all the symptoms described as essential to the fever, and was able to ascertain the frequent accession of urinary suppression and the common presence of albumen in the urine. About this time, also, a Medical man, who had been very assiduous in attending the sick, himself sickened and died of the fever. This seemed to prove the contagion.

The population of Buenos Ayres numbers some 180,000. It is generally believed that at least 100,000 very wisely fled the city, and of those who remained probably three-fourths sickened and one-fourth died. Various and very varied computations have been made of the extent of the fatality of the epidemic. The official returns appear to have been most loosely kept, and only give between 13,000 and 14,000 as the extent of the mortality; my own impression is that about 20,000 (under, rather than over, this amount) have perished. I hope to be able to send you amended official statistics, which we are promised soon.

Of some seventy Medical men who remained at the post of duty, fifteen have died, and probably half sickened. In the town of Corrientes, five died out of seven, and two apothecaries of three that were there when the epidemic commenced.

I believe yellow fever existed in Barcelona in the autumn of 1869; I am not sure if it may not have been later. There is some talk about an importation of the disease thence. I cannot find confirmation of this idea, and think with all the yellow fever we have had near us a cause close at home may be accepted. You must understand, it is very difficult to ascertain facts of this kind in this country. There is not the least doubt, however, that quarantines, although imposed, have been simply farcical during all the time the disease was raging in Asuncion, and even at Corrientes, in the same Republic. It is said that two *employés* of the steamer *Provudor*, which ran between this port—Corrientes—and Asuncion, came ashore suffering from the fever; also that a patient escaped from the quarantine lazaretto, and brought the disease to the city. Possibly, more may be made public upon this matter; if so, I will inform you. For a considerable period before the outbreak of the epidemic an exceptional season prevailed: the preceding winter, spring, and early part of summer had been exceptionally dry, the summer hot. This condition had prevailed throughout these parts.

Buenos Ayres is a city without drainage, in which the population occupies a small area in proportion to its number; the streets are narrow, and, rents being very high, it is usual for many people to live in one house. The most complete disregard for all hygienic rules exists, and the *débris* from the slaughter of the cattle has been hitherto discharged into an almost stagnant inlet of the river in most unpleasant proximity to the city. The odour from this source has been, with a favourable wind, almost insupportable, even in the centre of the city. The method of making streets has been to fill up with offal before macadamising. Such filthy water-closets I have never met with anywhere, although one gets to a certain extent prepared by what one encounters on the Continent in Europe.

The city of Monte Video at first imposed a stupid quarantine of three days' duration; after a time it was increased to twelve days, then to twenty days, and finally the port was closed entirely. In the town of Rosario a quarantine of fifteen days was imposed from the first. After a time, the port here also was closed. Both Monte Video and Rosario have saved themselves from the plague. The disease springing up in one parish, was for a long time confined to that parish; and in the early period, although cases passed from this parish to others, they did not seem to originate the disease in the parishes whither they went; and this has happened throughout the epidemic in the country districts where cases have been imported from the city, and have been fatal, but have not called forth the disease in others. However, in time, the disease spread throughout the city. Immediately after the Carnival, the disease doubled in amount, and was probably truly attributed to the intermixture of the people during that season; for this reason, the festivities of Holy Week were very properly dispensed with.

The influence of meteorological conditions was remarkable:—Cold increased greatly the number of deaths, but seemed to be followed by a smaller number of new cases; heat augmented the number of new cases; and rain combined with heat appeared to favour most the progress of the epidemic. An arrest seemed to be put to the disease by several days of extreme cold, followed by very heavy rains, even although the temperature which followed was again higher, though not so high as previous to the week of climatic crisis.

The temperature is very variable here; the thermometric ranges are great, even in a period of twelve hours; rain falls rarely, but in considerable quantity within a short period. Thus generally three or four hours in midday may be quite hot, and yet the remaining part of the day cold, and the night exceedingly so; it seemed as though a continuously low temperature was necessary to affect sensibly the plague.

It seems that fevers of varied type (probably malarious) exist here, but to a limited extent; and that yellow fever has not yet found a habitat. It was here about 1858, and again last year; but last year it appeared to extinguish itself in the place where it broke out in the autumn, and the first cases this year were in quite a different, and sufficiently distant, part of the city.

The greatest sufferers by the plague have been the Italians, who are the poorest part of the population, and live in the worst hygienic conditions, and, besides, are the most ignorant and the least disposed to apply for Medical assistance. These are the occupants of the "Convent Mos," a term which may be literally rendered "fever dens." You will readily understand that the number of Medical men should have been insufficient to cope with this colossal plague; national prejudices also impeded that beneficent united action which should have been cultivated at all cost.

The importance of early treatment was clearly apparent; the proportion of mortality increased terribly with every day of unassisted fever. The fatal symptom was urinary suppression—but very, very few recovered after this symptom set in. I estimate that the natural mortality of the disease, unassisted, was not more than 40 per cent. of the attacked; Medical treatment reduced it about 20 per cent., and in the decline of the epidemic it was probably less.

Statements about diminution of ozone in the atmosphere, and of electrical aberrations, were made, but they were entirely unsupported by acceptable evidence. It was the opinion of the Professor of Chemistry in the University (who unfortunately himself succumbed to the disease), from some partial experiments he made, that the amount of ozone was not diminished.

The towns on the line of infection are Monte Video, Buenos Ayres, Rosario, Parana, Corrientes, and Asuncion. The disease existed in Asuncion during summer, in Corrientes during summer and the early part of autumn, in Buenos Ayres during the latter half of summer and autumn. The summer throughout was hot and dry; during this Asuncion and Corrientes suffered. The temperature in Buenos Ayres during the epidemic was very variable, and there were several very heavy rainfalls, but also a few light rainfalls with general moisture, and, when the epidemic fell, a more maintained low temperature. Although exposed, then, to similar climatic conditions, Parana, Rosario, and Monte Video were not infected. They, however, took the alarm, and exercised rigid quarantines.

Males suffered in much greater proportion than females. The mortality amongst children was small. Plethoric habits were bad subjects, and lymphatics seemed to have a better chance.

We hope that the cold of winter will be sufficiently maintained to prevent, as hitherto, the fever taking up its abode here. Everything prompts such hope. The streets of the most infected quarters were sprinkled with tar, at the recommendation of the lamented Professor of Chemistry in the University.

The disease generally began with some sensation of cold, giddiness, and (usually) nausea; occasionally vomiting. Then followed intense headache and pain in the back; often, too, with general pain, high fever, very injected eyes, and rapid pulse. The urine, at first, highly charged with colouring-matter and lithates. The tongue was generally lightly-coated, sometimes heavily so. The bowels constipated. Any early vomit was of ingested substances. A yellow colouring of the conjunctivæ was generally early apparent. In the second stage great adynamia prevailed, with a remarkably slow pulse (often not more than 40 per minute). Jaundice proceeded. Bleedings from nose and mouth, occasionally from the bowels; still more rarely with the urine, and very rarely from the vagina, with petechiæ. Sometimes ecchymosis in the cellular tissue, and generally in the conjunctivæ. Vomits of decomposed blood, often very copious. Hiccough occasionally. Generally albumen in the urine, and suppression of this secretion in many cases, but rarely, indeed, relieved, and of all but certain fatal augury. In this stage the urine highly charged with bile. Some patients died within sixty hours, overwhelmed by the disease; the majority about the fourth or fifth day. Some cases put on typhoid symptoms, and lasted twenty, thirty, even forty days; generally, but not invariably, recovering. With some frequency, parotid abscess.

The fever, as a fever, was of continuous type, but aspects of periodicity frequently presented themselves to me, on which I have formed my opinion and based my treatment. A high range of temperature was rapidly attained, and maintained, with the exception of differences of fractions of a degree between the night and morning temperatures, the night returns being slightly higher than those of the preceding morning; the decline was quite gradual. These statements are based on a few observations taken in the lazaretto. I was not working there, or would have tried to have furnished more complete accounts. Seeing about sixty patients daily in different quarters of the city, it was impossible that I could undertake this investigation.

The autopsies, of which I saw a number in the lazaretto, disclosed inflammatory injection and ecchymosis of the coats of the stomach and the intestines, generally extending as far as the ascending colon. Very frequently one found coffee-grounds liquid in the stomach, and green-paint stuff in the intestines. The liver presented notable appearances. The first stage (seen in those who had died early) seemed to be one of active congestion, followed speedily, as it were, by a stuffing (pardon the expression) of the organ with bile, and giving it the rhubarb aspect. The gall-bladder generally only contained some bile, and was never distended, but rather somewhat empty: once the connective tissue surrounding it was infiltrated with ecchymosed blood. The kidneys were almost invariably dyed with biliary colouring-matter, and, in anuric cases, congested in the cortical part, to all appearance, with an ecchymosed look in the pyramidal portions, and true ecchymosis about the calyces and pelvis. The spleen occasionally seemed a little swollen and immoderately firm, but its changes were almost *nil*. The cavities of the heart showed the biliary staining in their lining membranes, particularly about the valves; generally a very dark and fluid condition of the blood; sometimes post-mortem or intermediate clots, always with the biliary colour. The lungs generally natural; once with apparently passive sanguinary infiltration in one lower lobe. The brain and spinal cord, negative appearances; once much fluid in the ventricles and subarachnoid space (the subject had died in uræmic convulsions); but in other—even anuric—cases, negative appearances.

Cases seemed to terminate thus: A few, early in the disease, *comme foudroyés*, yet with exalted temperature, but senseless;

the majority, with convulsions just before death—generally anurics, yet many anurics seemed to die in syncope; and several by syncope generally having this concentrated pulse of small number. Quite a few seem to me to present, since their attack, the anæmia and malaise usual in paludal cases, and some of the cases of the typhoid form had the dysentery one so commonly meets with in those cases. The greater number recovered perfectly.

All kinds of ideas upon the nature of the fever and its treatment were emitted in the newspapers. At first, all seemed determined to refuse the diagnosis of the native Faculty, and sustained it was not true yellow fever. However, I have explained to you that the fact of an importation having occurred appeared highly probable. Then we had cases which gave colour to the idea that it was contagious; and, to stop all doubt, came albuminuria and suppression of urine. Now the journalists are at the statistics; the natives uphold the official 13,000, and the foreigners assert that double that number have died. Also, in treatment, we have had vomitives lauded and vomitives condemned; and the same of purgatives, mercury, quinine, etc.; of homœopathy, hydropathy, and "Let me alone, please," etc.

I have spoken to you of the periodic aspect one could not fail to remark in many cases of the disease; I have told you that the generally continuous type of the fever, its infection or contagion, and the urinary symptoms proved to us that we had to deal with the disease described as "specific yellow fever;" certainly, though hourly, one could recognise in the disease the same nervous expressions one is so conversant with in the experience of tropical fever—let it be shore fever, or marsh fever, or heat fever. Where is the difference; what is the difference; is there a difference in these fevers? And if there is a difference, is it a difference of nature or of form? And does malaria exist, or does it not exist? And if they exist, are they always necessarily local and not portable, intransmissible from place to place? And is a pernicious fever—let it be an intermittent, a remittent, or a continued fever—simply the expression of the result of weather changes on the frame, or caused by some agent that is disengaged from the soil under certain local and meteorological conditions? And are malaria the products of topographical or geological conditions, and are they caused by organic or inorganic decomposition? How imperfect is one's knowledge when one cannot prove one's science; one should be scientific to be a sure Physician.

We had one plausible theory from an Italian chemist: bilious remittent, the product of vegetable decomposition, yellow fever, the same plus animal decomposition, both produced by a neglect of sanitary laws, coupled with atmospheric aberrations, and generally local in their nature and effects.

If I find, then, that antiperiodic treatment is efficacious against "specific" yellow fever, do I utter an heresy in saying that this fever must not be expelled from the family—the common family—of which it bears the impress, and to which it stands in the closest and most intimate relation? Yellow fever, certainly, necessitates a most vigilant and active treatment, but the basis of that treatment is quinine in antiperiodic doses. Shall we deny that a miasma, the malaria, may not under certain conditions, climatological and local, become contagious or infectious (as contagious and as infectious as may be expressed by its existence in the sick man as an infection-centre, and around him, by his presence, for a limited distance), and be portable from point to point; being intensified and producing an intense disease, so intense that you shall get but a glimpse of its real nature, but that glimpse shall suffice to the initiated to recognise an old acquaintance, and to counsel the adoption of the same means of repelling him as have sufficed to control other of his brethren.

We are told that yellow fever is a disease of the West, and does not exist in the East; yet, was it not anciently called "mal de Siam"? Has any Medical man seen the two diseases, each in its native home? What is this malarious yellow fever one reads of?—is it never infectious?—for truly the contagiousness of specific yellow fever is more an infectiousness than anything else; and the urinary symptoms are not satisfactorily sufficient as a basis of distinction—this symptom is merely a question of degree. Quinine will not cure yellow fever alone, but neither will it cure a severe bilious remittent alone.

(To be continued.)

ON ORCHITIS AFTER LITHOTOMY.

By ALEX. GARDEN, M.D.,
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Orchitis and abscess of the testicle after lithotomy are complications, rare indeed, but still liable to occur in a certain proportion of the cases operated on. During the last seven years I have had the opportunity of watching carefully more than 250 cases of lithotomy, of which 130 have been operated on by myself, and the remainder by the sub-Assistant-Surgeons under my immediate supervision. Amongst these cases orchitis, with or without abscess, has been met with six times, giving a proportion of about one in forty-two. Mr. Jonathan Hutchinson alludes to this subject in his lecture on "Orchitis from irritation of the Prostatic Urethra" (vide *Medical Times and Gazette*, April 17, 1851, No. 1085), and gives the proportion from his own experience as one in forty; but this he considers as probably much above the true average. Mr. Hutchinson's and my own averages are very much the same, but the truth of his suggestion is, to a certain extent, borne out by the result of more extended figures. I have by me an abstract of all the cases of stone in the bladder that have been operated on in the Suddur Dispensary during the twenty-three years commencing with August, 1848. The total number, exclusive of females, is 983, in only one of which was lithotrity performed: but from this total 183 cases must be deducted as imperfect in details, the particulars having been obtained from half-yearly returns, in which results only are entered. The number of cases of lithotomy left for comparison is 799. The total number of cases of orchitis is sixteen, giving an average of one in fifty, which is considerably lower than those given above. This is probably correct, at any rate for India, though, of course, it is quite possible that it might be much modified if the experience of other districts was available for comparison. There are other points of interest in connexion with this subject, which are shown in the subjoined statement of the sixteen cases above alluded to—

No.	Year.	Age.	Duration of symptoms.	Health at the time of operation.	Weight of calculus.	Date on which		Side affected.	Abscess or not.	Remarks.
						Urine first passed by urethra.	Orchitis appeared.			
1	1848	28	2 years	Good	360 grains	6th day	17th day	?	..	
2	1849	10	4 ,,	Good	480 ,,	11th ,,	18th ,,	Double	..	
3	1849	3	1 ,,	Good	240 ,,	10th ,,	10th ,,	Double	..	
4	1849	60	3 ,,	Bad	1480 ,,	18th ,,	27th ,,	Left	Abscess	
5	1851	50	5 ,,	Good	300 ,,	11th ,,	11th ,,	?	..	Secondary hæmorrhage; plugging.
6	1854	40	4 months	Good	220 ,,	11th ,,	21st ,,	Left	Abscess	Stone broken.
7	1854	11	5 years	Bad	766 ,,	20th ,,	36th ,,	Left	..	
8	1854	40	3 ,,	Good	200 ,,	6th ,,	8th ,,	Left	..	
9	1856	30	2 ,,	Bad	840 ,,	3rd ,,	23rd ,,	Right	..	
10	1856	52	1 ,,	Good	50 ,,	6th ,,	16th ,,	Double	Abscess	
11	1865	22	3 ,,	Bad	480 ,,	13th ,,	7th ,,	Left	Abscess	Secondary hæmorrhage; plugging.
12	1866	3	1 ,,	Good	40 ,,	..	2nd ,,	Left	..	
13	1866	25	6 months	Good	12 ,,	7th ,,	6th ,,	Double	Abscess	
14	1869	25	2 years	Good	201 ,,	9th ,,	15th ,,	Right	..	Three calculi.
15	1869	15	5 ,,	Bad	510 ,,	..	18th ,,	Right	..	Four calculi.
16	1869	16	1 ,,	Fair	34 ,,	2nd ,,	8th ,,	Right	..	Stone broken.

The last six on the list are the cases which have come under my own observation, and of which the following are short abstracts :—

Case 1.— G. L., aged 23 ; admitted November 29, 1865. Duration of symptoms three years : for five months his sufferings have been intolerable. He is greatly emaciated and very weak ; pulse very small and weak ; no appetite ; gets no rest on account of pain in the bladder; great tenderness in the hypogastric region ; micturition frequent ; urine alkaline, pale, with a thick ropy sediment, consisting chiefly of pus and mucus cells and phosphates ; has undergone treatment at the hands of the hakeems by diuretics and purgatives. His means are good, and he has undergone no privations. Under the use of dilute nitro-muriatic acid, and laudanum, with carefully regulated nutritious diet, he improved much. At his own urgent request I performed lithotomy on December 12, and removed a calculus weighing 480 grains. There was free venous bleeding at the time of the operation. On the second day he showed symptoms of collapse with tympanitis, but rallied under the use of stimulants and turpentine stupes. On the third day there was a little redness of the scrotum, which soon disappeared. Secondary hæmorrhage to the extent of twelve ounces occurred also. This was controlled by the introduction of a tube and plugging. On the fifth day he complained of pain at the brim of the pelvis in the course of the left spermatic cord. On the sixth day the plug was removed. There was no return of hæmorrhage. On the seventh day the left testicle was swollen and painful, and there was considerable redness and œdema of the scrotum. On the eighth day fluctuation was distinguished in the body of the testis. Two ounces of thin purulent fluid were evacuated. On the tenth day the swelling was less, there was no pain, and the discharge of matter was very slight. On the fourteenth day there was no discharge, and the wound was nearly healed. On the sixteenth day urine was first passed by the urethra. On the twenty-second day urine was passed entirely by the urethra. On the twenty-sixth day he was discharged cured.

Case 2.—O. C., aged 3 ; admitted January 27, 1866. Duration of symptoms one year ; general health good ; urine clear. Lateral lithotomy was performed by the sub-Assistant-Surgeon, and a stone weighing forty grains removed. On the second day the scrotum was red, swollen, and painful. On the third day the left testicle was inflamed, the body swollen and painful. On the fifth day the urine first passed by the urethra ; inflammation of the testicle much less. On the eighth day the inflammation had entirely disappeared, and there was little or no swelling. On the eighteenth day he was discharged cured.

Case 3.—B. G., aged 25 ; admitted August 12, 1866. Duration of symptoms, six months ; general health good. On August 13 I performed lithotomy, and removed a calculus weighing twelve grains. On the sixth day the left testicle was swollen and painful. On the tenth day urine first passed by the urethra ; the testis was much enlarged, chiefly the body, the epididymis being but slightly affected. The scrotum was red, shining, hard, and painful at the lowermost portion. The right testicle was inflamed also. On the twelfth day fluctuation was felt in the right testis. Four ounces of rather offensive pus were evacuated. On the fourteenth day there was but slight discharge. On the twenty-fifth day he was discharged cured.

Case 4.—S., aged 25 ; admitted May 9, 1869. Duration of symptoms, two years ; general health good. On May 9 I performed lithotomy, and removed three calculi weighing 201 grains. On the ninth day urine passed by the urethra in great part. On the fifteenth day the right testis was inflamed. On the twenty-second day no orchitis ; urine entirely by urethra. On the twenty-fifth day discharged cured.

Case 5.—O., aged 15 ; admitted May 30, 1869. Duration of symptoms, five years ; general health bad ; sufferings intense ; urine phosphatic. On June 1 I performed lithotomy, and removed four calculi weighing 510 grains. After opening the urethra, and on attempting to pass the scalpel along the groove of the staff into the bladder, an obstacle was met, which proved to be three small calculi, lying in the enlarged prostatic portion of the urethra. After removing these, the finger could be passed readily into the bladder through the dilated orifice. The largest of the four calculi was removed without difficulty. On the third day a little fæcal matter was passed through the wound. On the sixth day he could retain his urine and pass it in full stream by the wound voluntarily. On the eleventh day but a slight trace of fæcal matter by the wound. On the eighteenth day the right testicle was inflamed. On the nineteenth day the testis was swollen, but not painful. On the twenty-seventh day the urine passed first by the urethra ; the testicle was normal. He subsequently died from dysentery.

Case 6.—S., aged 60; admitted October 13, 1869. Duration of symptoms, one year; general health fair. On October 14 I removed two calculi weighing thirty-four grains. One was very friable, and lodged at the mouth of the bladder, and was broken by the sound. On the second day most of the urine passed by the urethra. On the fourth day the urine was passed entirely by the urethra. On the eighth day the body of the right testis was inflamed. On the twelfth day he was discharged cured.

Rare as orchitis after lithotomy is, it seems to occur almost under some epidemic influence, as in most years when met with two or three cases have occurred close one after the other, whilst at other times year after year has passed without a case. Thus, in 1849, 1854, and 1869, three cases happened in each year, and two each in 1856 and 1866; but since October, 1869, I have not myself met with a case, and during the eight or nine years from 1856 to 1865 not one is recorded. In this long period most of the imperfect cases before alluded to were operated on —viz., between May, 1856, and January, 1858, and in July, August, September, and October, 1859. Very possibly cases may have occurred during these periods. It may, however, be that this occurrence of several cases in quick succession is but another example of those inexplicable chances so frequently met with in Surgical practice, where several cases of the same accident are seen rapidly one after the other, and then never again for months—*e.g.*, recently, in two successive days, three children were brought to me with foreign bodies introduced by themselves into their nostrils. This could hardly be looked upon as an epidemic !

Has age any influence on the occurrence of orchitis after lithotomy ? The number of cases is almost too small to frame a definite reply from, but it would seem that the young are much less liable to it than adults or those in advanced life. This will be seen by comparing the percentages of cases operated on at the different periods of life with those of the cases of orchitis in similar periods.

In 824 cases these were as under. The cases of orchitis are placed beside them for comparison :—

Periods.	Percentage of Total Cases.	Orchitis. Percentage.	No. of Cases.
1 year to 20 years .	50·59	31·25	5
21 years to 40 years .	30·58	43·75	7
41 years to 60 years .	16·50	25·00	4
61 years to 85 years .	2·30	—	—

From this it appears that whilst a little over one-half of the cases are under 20 years of age, not one-third of the cases of orchitis occurred during the same period. On the other hand, the liability is the same for all ages above 20. The youngest age at which it was met with was 3 years; the oldest, 60 years. Of one circumstance there can be no doubt, and this probably has some bearing on the subject as a cause, predisposing or exciting—viz., that the urinary organs are much less likely to be seriously diseased amongst the young than in those of more advanced life.

On the other hand, the duration of the disease does not seem to exert much influence. Of the 824 cases, 32 per cent. had suffered for one year or under, the number of cases of orchitis being six, or 37·5 per cent., and 68 per cent. had suffered for more than one year, the cases of orchitis being ten, or 62·5 per cent.

The state of health at the time of operation, as might be supposed, seems to have considerable influence. In the total cases it was good, in 77·4 per cent. the percentage of orchitis being 62·5. In the case of those in bad health the position is reversed. A good general condition of health, however, is very far from a guarantee against the appearance of the disease.

The weight of the stone, which apparently so strongly influences the mortality after lithotomy, does not seem to be a cause, in any way, of orchitis. The weights varied from 12 grains to 1480 grains.

The left testicle is rather more often affected than the right ; or, if we remember that, when both are affected, as a rule the left is first inflamed, much more so.

In fourteen cases in which the side is mentioned, it was as follows :—Left testicle alone, six cases ; right testicle alone, four cases ; both testicles, four cases.

It is a fair supposition that this greater liability of the left side is in some way connected with the position of the incision in lateral lithotomy.

The inflammation I believe to invariably commence in the prostatic portion of the urethra, and to extend along the cord to the testicle. If the cord be examined, it will in most cases

be found at some time or other affected. In one of my cases it was markedly so, and first drew the patient's attention. I am not so certain on this point with regard to the inflammation that occurs in the second testicle when both are affected. The portion chiefly and mainly inflamed is the body. It is rare to find much swelling of the epididymis, as in gonorrhœal orchitis.

Suppuration of the body of the testicle occurs in a considerable proportion of the cases—viz., in five out of the sixteen. Most often it is in the left testicle. It is remarkable with what rapidity, in some cases, the matter forms: until it is evacuated the sufferings are most intense.

In many cases it is difficult to understand the occurrence of the inflammation, in the absence of anything peculiar in the operation or the case itself. Mr. Hutchinson suggests that a small fragment broken from the stone during extraction may become impacted in the orifice of the ejaculatory duct, and give rise to the inflammation; and in a certain number of cases this may possibly be the case, but I can hardly think that it is the only cause. He has never known orchitis follow lithotrity, but one would imagine that the impaction of a fragment would be certainly as likely to occur after this operation as after lithotomy. I can offer no evidence of my own, as my experience has been entirely of lithotomy, owing to want of lithotrity instruments.

In two of the cases secondary hæmorrhage rendered the introduction of a tube and plugging necessary, and in one of these, for certain, the inflammation followed directly on it, and, we may fairly conclude, was caused by it. Preceding cystitis may also be well supposed to act as a cause.

In the two cases in which the stones were broken, one can well understand that a small fragment may have become impacted.

Multiple calculi may also influence it, owing to the generally lengthened nature of the operation and the greater chance of bruising and irritation by the more frequent introduction of the forceps.

Another point worthy of remark is, that in only 25 per cent. of the cases did the orchitis precede the first passage of the urine by the urethra. In some it commenced on the same day, and in others not for days after. Patients often complain of pain and smarting at this time, and it is possible that the healthy healing process may deteriorate into inflammation in certain cases.

On the subject of treatment it is not necessary to say much. The disease is, as a rule, very tractable, and only acts unfavourably by retarding recovery somewhat; it is never fatal. When abscess has formed it must be opened as soon as possible; otherwise, a few leeches along the cord, an aperient, and cold lotion locally are all that is required.

Saharunpore.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

DR. L. A. SAYRE'S METHOD OF TREATING HIP-JOINT DISEASE.

We have quite recently had the opportunity of meeting Dr. Sayre, during his short visit to this country, at two of our London Hospitals, and at one of them—the Middlesex Hospital—we had the satisfaction of hearing him explain his views and illustrate his treatment of cases of hip-joint disease. Dr. Sayre's hip-extension splint has for some years been known in England; but from ignorance of, or want of sufficient attention to, many little details in the mode of application, it has not met with the success in the hands of others that Dr. Sayre has established for it in his own. Whatever may be the views entertained by different Surgeons as to the etiology or pathology of hip-joint disease, none who have had experience of such cases can have failed to see the ill-effects produced upon the general system by the long-continued inactivity which the treatment ordinarily employed necessitates, and to desire some means by which extension and proper rest to the affected joint could be supplied without confinement to the bed and house.

By long experience, obtained at the Bellevue Hospital, New York, and in practice, and by a thorough knowledge of and attention to the pathology and anatomy of the joint, Dr. Sayre has employed and perfected a splint by which Surgeons can obtain these desirable results. He regards the majority of cases of hip-joint disease as the result, not of a strumous or tubercular dyscrasia, but of some local cause—a blow, or twist, or sprain, which, though very slight, may set up an inflammation of the synovial membrane of the joint, or cause a "blood blister" between the end of the bone and its investing interarticular cartilage. This not being observed at the time of its occurrence, is not quieted or subdued by immediate rest, but goes on developing slowly into a grave disease. With these views strongly impressed upon him, he was convinced of the propriety of overcoming the affection by purely local means, instead of relying upon medicinal remedies to correct a supposed scrofulous condition or hereditary defect of the body.

The familiar and characteristic position of the limb in the second stage of the disease—viz, one of flexion upon the body, abduction and rotation outwards—Dr. Sayre explains by the action of the ilio-femoral or accessory ligament, which, passing over the front of the capsule from the inferior iliac spinous process to the anterior intertrochanteric line of the femur, is intimately blended with it, and keeps it close to the neck of the bone. When the quantity of fluid normally contained in the capsule is increased by inflammation of and effusion into the joint, the capacity of the capsule itself must be increased, and this can only be done by the unfolding of the capsule; hence, the limb is flexed, abducted, and rotated outwards, to take off the pressure or tension of the accessory ligament, and thereby to permit the more complete relaxation of the capsule. That this is the result of an increase of the quantity of fluid in the capsule, Dr. Sayre has proved by injecting quicksilver into a joint after death and after the cessation of rigor mortis.

But another result of the joint-mischief is an atrophy of the muscles about the joint, accompanied by their contraction. Two conditions of contraction of muscles are recognised—one in which the muscular structure is not incapable of being stretched and extended by force, and the other in which, as after very long-continued want of use, the fibres become irremediably altered and shortened. The former condition Dr. Sayre calls the "contracted," the other the "contractured" state, and it is this latter which requires in some cases to be overcome by subcutaneous section of the "contractured" muscle before the limb can be brought into its proper position.

Now, in hip-joint disease the adductor muscles, which become tensely contracted, would draw the limb inwards and adduct it, did not the distension of the capsule above described prevent this; hence, one of the sources of the acute pain suffered in the second stage of the disease is the conflict between the muscles tending to adduct the thigh, and the resistance produced by the effusion into the joint, which keeps the limb abducted. Another cause of pain is the pressure upon the diseased surface due to the contraction of the muscles around the joint.

When the capsule ruptures, and the pus escapes into the surrounding tissues, the third stage of the disease has arrived; the pain is often considerably diminished, and the position of the limb is changed. The limb is adducted and drawn inwards; the muscles, in fact, being no longer resisted by the fluid in a distended capsule, have it all their own way. If the opening in the capsule be small, then the change will occur slowly; if large, then rapidly; and this it is which gives rise to the apparent spontaneous luxation of the femur, the occurrence of which Dr. Sayre denies. This so-called luxation, he says, is brought about by an enlargement of the acetabulum, the end of the bone being still contained within its capsule, and not by a slipping of the end of the bone out of the capsule.

In the diagnosis of the early stage of the disease, Dr. Sayre places much stress upon the dropping of what he terms the string of the buttock—*i.e.*, the gluteo-femoral fold—the flexed position of the knee and hip as the child stands bearing the whole of his weight upon the sound limb, and the want of the rectangular decussation of the two imaginary lines, one along the central line of the abdomen, and the other from the anterior superior spinous process on one side to that on the other. In hip-joint disease, even in the early stage, in order to get these lines to cross at right angles, the leg must be flexed. Another point of importance is ascertained by placing the child naked upon a hard bed, floor, or table, when, if there be no disease, the spine will lie along the surface, the popliteal spaces will touch the bed or floor, and the lines will cross at right angles, as already mentioned; but if there be disease of one of the joints, the hand can be passed between the table and the lumbar spines, until the affected limb is flexed on the abdomen, when the arch in the spinal column disappears.

In the treatment of hip-joint cases everything depends upon the extension being kept up continuously and properly. The

straightening is to be done by degrees; at first it should be employed in the line of deformity, and then gradually brought from this into a straight position. The mode of extension used is the weights and pulleys, until the straight position has been obtained, taking care that the point upon which traction is made is above the knee, so as not to strain the ligaments of that joint. Afterwards, the extension-splint is worn during the day, and the weights and pulleys are applied during the night.

This splint consists of two pieces of steel, the ends of which are made to slide one within the other by means of a key, thus forming an upright extending along the outside of the thigh from two inches above the condyles of the femur to the crest of the ilium, the length of which can be increased or diminished, as greater or less extension is required. It ends below in a little roller, and a buckle is attached to its outer side, by which the webbing keeping it in place is fixed. Two flattened arched pieces, at an interval of two inches, pass from the lower portion of the steel rod over the front of the thigh to another short straight piece along the inside of the thigh, which connects the two cross-pieces, and is parallel with the outer and longer rod. A roller and buckle are fitted similarly to the lower end of this short inner steel rod, and the whole is fixed around the thigh by a strap which passes over the posterior half of the circumference from the outer to the inner straight rods. At the upper extremity a concave plate of steel well padded and about three inches long and one broad is attached by a ball and socket-joint; this is adjusted to the pelvis immediately below the crest of the ilium. To each end of this plate the ends of a perineal pad are fastened by buckles, so that the counter-extension is made on the perineum, and the child supports its weight on this perineal pad (instead of on the hip-joint), from which it is transmitted by the steel upright to the condyles of the femur.

In applying the instrument, two strips of strong inelastic adhesive plaster—that spread on mole skin Dr. Sayre prefers—two or three inches wide, and long enough to extend from just above the ankle to three inches above the knee, are fixed to the leg without warming the plaster; and after removing all loose scarf skin, by thoroughly washing and wiping the limb, some webbing should be sewed fast to the lower end of the plaster, for the purpose of fixing the pulleys for night extension, and then the plaster is to be fixed with a roller carried from just above the ankle to above the knee. When the condyles are reached with the roller, the ends of the strips of plaster are to be turned down, and the roller applied back over the sticking surfaces. By these means the plaster is first secured by the roller, and then the roller is made firm by the plaster, so that the whole can be made to remain in place for three or four months. So much to provide for night extension. Next two fan-shaped pieces of plaster, with webbing (just wide enough to pass over the rollers and fit the buckles at the end of the uprights of the splint) attached to their narrow ends, are applied to the sides of the thighs, so that the broad extremities are towards the pelvis, and the pointed ends opposite the place upon which the lower part of the instrument is to be fixed. The plaster is then covered with a roller, and the upper ends of it, having been cut into strips, are turned back strip by strip over the bandage, and so made to hold the bandage in its place.

The instrument is then placed over the thigh, and the lower end fixed by being buckled to the webbing attached to the fan-shaped pieces of plaster, and by buckling the strap which passes behind the thigh; then the perineal pad is fastened to the plate below the crest of the ilium; and, lastly, extension is made by lengthening the steel uprights by means of the key. After the adjustment of the splint, the child may be allowed to stand and walk; but it will be often necessary that, at first, a thick-soled boot be worn on the sound side, as, owing to the obliquity of the pelvis, the well leg will for a time be apparently shorter than the extended diseased one.

We had the satisfaction of seeing this treatment applied to a little boy who had all the symptoms of the second stage of the disease well marked, and in a few minutes after the adjustment of the splint the child was quite free of pain, and could walk and sit with no other inconvenience than was caused by the stiffness of the plaster on first being applied.

The advantages of this instrument are beyond all argument. By its aid, where properly adjusted, recovery can be made from this tedious and destructive disease without the deformity of an anchylosed joint, and without the constitution being undermined by long confinement.

Instruments the same in principle and to obtain the same results are made for the knee- and ankle-joints; and by means of some "wire breeches," Dr. Sayre is enabled to send patients who are submitted to exsection of the joint, when that operation is required for the third stage of hip-joint disease, into the open air a day or two after they have undergone the operation.

SAMARITAN HOSPITAL.

FIBROID OUTGROWTH FROM THE UTERUS—ASCITES—REMOVAL OF FLUID AND TUMOUR—RECOVERY.

(Under the care of Mr. SPENCER WELLS.)

A MARRIED French dressmaker, aged 46, was admitted on June 6, 1871, in a condition of extreme suffering—indeed, almost moribund. Her abdomen was enormously distended, measuring fifty-three inches in circumference—thirty-two from sternum to pubes, and thirty-eight across from one anterior superior spine of ilium to the other. Her legs were hard and œdematous, and there was a large vaginal rectocele, although the uterus was kept up by a stem and inflated pessary. Mr. Wells tapped immediately after admission, and removed fifty-nine pints of clear straw-coloured fluid from the peritoneal cavity. A hard, nodulated, movable tumour could then be felt, filling the lower part of the abdomen, extending four inches above the umbilicus, and with a partially separable nodule, which reached the false ribs on the left side. The vaginal rectocele was not much diminished by the removal of the fluid. The cervix uteri was high and movable, and only slightly affected by movements of the tumour. On inquiring next day into the history of the case, Mr. Wells was reminded that he had seen the patient eighteen months before with Dr. Ferriani, of Leicester-street, had then made the diagnosis of a fibroid outgrowth from the uterus, and had said that it might be removed if it ever produced symptoms dangerous to life. The patient had also the following written opinion of M. Nélaton, dated July 6, 1867:—

"Corps fibreux uterine très-volumineux forment une masse très-considerable. Je pense que toute operation doit être proscrite."

She was married twenty years ago; had twins, born two years after marriage; had never been pregnant afterwards, and believes that the abdomen had been increasing for at least fifteen years. The vaginal prolapse had appeared within the last year, and the dropsy within the last three or four months. There had been no appearance of catamenia for eight or nine months.

Considerable relief was afforded by the removal of the fluid, but it began to accumulate again very fast, and her condition became so pressing that Mr. Wells removed the tumour two days before the usual operating day. An incision was made in the median line from above the umbilicus to two inches above the pubes; it was about nine inches long. Six pints of ascitic fluid escaped, and a solid tumour was exposed, springing from the right side and back part of the fundus uteri. The chain of a large écraseur was tightened slowly around the bridge of connecting tissue between the tumour and the uterus, and the tumour was cut away and then removed, after separating large shreds of adhering vascular omentum. On still further tightening the chain, it cut through the uterine tissue, and there was very free bleeding. On attempting to seize the bleeding vessels with forceps or tenaculum, and apply ligatures, the friable uterine tissue repeatedly gave way. Solid perchloride of iron and the actual cautery were equally ineffectual. Mr. Wells accordingly transfixed the fundus uteri near the bleeding surface by two long needles, passed at right angles, and tied strong silk tightly behind the needles. Bleeding was thus stopped, and the needles were fixed outside the wound, so as to act like a clamp. The wound was then closed by sutures.

There was a good deal of pain on recovering from the operation, and 135 minims of laudanum were given by mouth and rectum during the first six hours. The pulse, six hours after operation, was 88; the temperature 98·8°. There was a little oozing of blood, and Mr. Wells applied perchloride of iron. Twelve hours after operation oozing was more considerable, but it was stopped Dr. Bantock, who applied more iron and firm pressure over the pins. Twenty-four hours after operation the pulse was 112; temperature 101·4°. She was sick and thirsty, but not in pain. On the second day the pulse was 120; temperature 102·4°. The urine was scanty and concentrated. Citrate of potash was given, freely diluted. From the third to the sixth day from three to four grains of opium were given daily on account of pain. The pulse ranged between

100 and 120; and the temperature between 100° and 102·4°. On the seventh and eighth days the stitches were removed. On the ninth day, as Mr. Wells was changing the dressing, the needles and ligature, with the included tissue, all came away, and there was very free bleeding, which was not checked by perchloride of iron. Mr. Wells therefore passed a large curved needle through the bleeding surface, and tied strong silk behind it and left it. This stopped all bleeding at the time; but it recurred twice in the afternoon, and was stopped by Dr. Bantock, who applied perchloride of iron, and made strong pressure by firm pads and circular strips of adhesive plaster all round the abdomen. The pin and ligature came away on the thirteenth day without bleeding. The bowels acted on the same day. Extreme flatulent distension of the abdomen then became a distressing symptom, but the pulse only ranged from 96 to 108, and the temperature from 98·6° to 101·2°. Two grains of quinine were given every four hours with good effect; and she was sitting up on the sixteenth day. The vaginal rectocele still remained as a hard mass protruding from the vulva, but it gradually disappeared after a free discharge by the rectum on the nineteenth day of muco-purulent fluid.

The patient was seen by MM. Ricord and Demarquay on their visit to the Hospital on July 12. She was then walking about, and very cheerful. She went to Brentwood on July 15—thirty-three days after operation—and on the following day some uterine discharge came on, which lasted two or three days, and was thought to be a return of the catamenia, which had been absent for several months. She rapidly regained strength at Brentwood, and recovery may be considered as complete.

We believe this is the first time in which a fibroid tumour of the uterus has been correctly recognised before operation, and removed successfully by abdominal section, in any British Hospital.

BIRMINGHAM GENERAL HOSPITAL.

VERY LARGE INTRA-THORACIC FALSE ANEURISM CLOSING THE SUPERIOR VENA CAVA BY ADHESION, AND GIVING RISE TO A COMPENSATING VENOUS ANASTOMOSIS IN THE WALL OF THE CHEST AND ABDOMEN.

(Under the care of Dr. RUSSELL.)

In the *Medical Times and Gazette* of May 20, I reported a case of supposed thoracic aneurism, which was rendered remarkable by a singular venous anastomosis conducted through the thoracic and abdominal walls, in order, as it was imagined, to compensate for more or less complete closure of the superior cava. The patient left the Hospital, but subsequently returned, and his death has enabled us to verify the accuracy of the supposition just mentioned, by exhibiting the superior cava completely closed through the pressure of an aneurism of unusually large size. I may just re-state that the aneurism seems to have dated from an injury to the chest three years before death, but that no symptoms of importance occurred prior to the last eight or ten months. When the patient left the Hospital the tumour formed by the aneurism, though well-marked, would not have struck the eye very forcibly. On his return, though only a fortnight had elapsed, it had increased with extraordinary rapidity, and had attained most formidable dimensions. It then projected from the right side of the chest, possessing both the magnitude and the exact appearance of a female breast distended by lactation, with the nipple at the apex. No bruit was audible, but simply a double cardiac sound. The patient suffered from constant severe pain between the tumour and the scapula, for the relief of which he was kept generally under the influence of chloral. Both pupils continued firmly contracted, as was the case when he was first seen, but one of them was dilated by atropine. The paroxysms of laryngeal dyspnœa, mentioned formerly, were averted by perfect quiet. Our fears of fatal rupture of the aneurism were relieved by the occurrence of death apparently from coma. There was no œdema of the face or upper extremities, but latterly the face was very bloated and congested.

Sectio Cadaveris.—Our pathologist, Mr. Rickards, made an injection of the veins in the wall of the chest and abdomen. Owing to his being hurried, the operation was not completely performed; he was, however, sufficiently successful to demonstrate that the dilated and tortuous superficial epigastric veins communicated freely with the internal mammary, whilst branches from the former also joined the intercostal veins. He also traced the long thoracic vein joining the circumflex ilii, and also sending one branch at least to an upper intercostal. All these veins, and others not dissected, were greatly dilated. The great pectoral muscle was readily reflected from the aneurismal tumour, but the lesser pectoral was intimately incorporated with its prominent apex. The tumour projected through the bony wall of the chest, by having destroyed a portion of the right fourth rib three inches from its insertion into the sternum, and having pressed apart the third and fifth ribs. An opening was thus formed three inches in vertical diameter, and extending laterally from the remnant of the fourth rib on the left to the axillary line on the right. Fragments of the carious rib were entangled in the aneurismal wall. The aneurism, itself of immense size, occupied the whole anterior portion of the right chest, the lung lying entirely behind it, quite out of view, and being greatly compressed, though forming no part of the aneurismal wall. It adhered firmly to the diaphragm below, to all the upper ribs on the right, and on the left to the pericardium, which was itself closely attached to the right ventricle of the heart. Thus the heart and the aneurism formed one mass, having, together with the thoracic aorta, the weight of 4 lbs. 10 oz. The main part of the tumour was formed by an enormous false aneurism springing from the right side of the dilated ascending aorta, the vessel communicating with the sac by a large opening two inches by three in diameter. The aneurism must have nearly equalled the size of a small adult head; its cavity would have contained two clenched fists; it measured four inches and a half vertically and six inches transversely. Near to the heart its wall was lined with dense laminated fibrine, two inches in thickness; elsewhere its wall was much thinner; in front, indeed, it was so thin that in dissecting the tumour from the bone the cavity was opened; it contained a quantity of loose fibrine. The heart was much enlarged; the right ventricle was considerably dilated, and was quite full of loose coagulum; the left ventricle was considerably hypertrophied; the valves were healthy. The aorta, just above the opening through the diaphragm, presented a shallow pouch composed of a complete plate of calcareous matter, two inches in diameter. The superior vena cava passed behind the aneurism, and at the height of an inch and a half above its opening into the auricle was completely closed by perfect organic union of its walls, evidently through simple apposition. The right internal jugular was seen to be greatly distended (the corresponding vein on the other side was not examined). The inferior cava in its entire length was also very much dilated, and quite crammed with coagulated blood. The right bronchus was much compressed by the aneurismal tumour; the right vagus was also subject to compression, but not to a great amount; the left vagus was quite free. Mr. Rickards was prevented by want of time from dissecting the sympathetics, but from the position of the tumour there did not seem *à priori* evidence of their having been exposed to pressure. The pupils after death were of medium size; but, as already stated, during life could not be made to dilate above one-fifth.

The Rural Hospital, Tewkesbury.—It has been decided to erect a building specially adapted for a rural Hospital, at a cost of £1100.

Small-pox at Chorlton.—There were last week fifty-six cases of small-pox in the workhouse—twenty-four males and thirty-two females. Twenty-one deaths from this disease had occurred since Christmas, and it had been observed that of these only one had been vaccinated, and that in infancy. The number of cases the week before was fifty-seven.

The Cholera at St. Petersburg. — The entire number of cases which have occurred between August 29, 1870, and June 11, 1871, is 4622—viz., 3034 males and 1588 females. Of these 2609 (1692 males and 917 females) have recovered, and 1848 (1252 males and 596 females) have died.—*Gazette Médicale*, July 29.

Vital Statistics of Melbourne and Suburbs for February, 1871.—Population, April, 1861, 140,000. The Registrar-General reports the deaths of 188 males and 169 females; total, 357 deaths during the month. The deaths of children under 5 years amounted to 231; the deaths of persons over 5 years numbered 126. The entire mortality was equivalent to 2·55 deaths to each 1000 of the population. The average daily mortality was 12·55. The average mortality in February during the ten preceding years was 366. Males contributed 53 per cent., females 47 per cent., and children under 5 years 65 per cent. of the entire mortality. Sixteen violent deaths occurred during the month.

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Medical Times and Gazette.

SATURDAY, JULY 29, 1871.

THE ROYAL COMMISSION ON THE CONTAGIOUS DISEASES ACTS.

The report of this Commission, to which, we briefly alluded last week, is a document in every way deserving careful study; and although the members of the Commission were far from unanimous (which, indeed, was well-known from the first to be impossible), no one can say they have not devoted sufficient care to the subject, though he may complain that they have approached it with too much caution.

The misfortune attaching to these Acts seems chiefly this: it is possible to view them from three sides; thus, some devote themselves to their sanitary aspects; some, again, to their moral bearing; others, still, to the political part of the question—and so each persists in ignoring the importance of his neighbour's point of view, and magnifying the value of his own. This is unfortunate, for, as their sanitary value has been proved (to our satisfaction) beyond a doubt—though, also, we hold that morals have been bettered instead of made worse—and we look upon their political importance as *nil*, nevertheless, the union of the intemperate opponents of the Acts on all of these grounds has created a small, active, and (let it be confessed) disagreeable party.

The former portion of this report deals with the history of legislation on the subject and reports of previous committees on the same, the evidence of some of the principal witnesses before these last being in part cited. After this come the results of the Commissioners' own inquiries. Next they point out that if the laws are good for soldiers and sailors they must be good wherever contagious diseases prevail, and censure the unscrupulous opposition got up against the Acts; after which the Commissioners proceed to point out that "the Medical witnesses experienced in the administration of these Acts are nearly all agreed that the periodical examination of the public women is essential to the system." Many authorities worthy of all respect support this opinion. Next comes the statistical information on the subject supplied by the Army and Navy Medical Departments—statistics which undoubtedly show the benefits derived from these Acts; but these have been so frequently discussed in our columns that we refrain from entering further into the matter. The Acts being limited in their operation, it is plain that soldiers and sailors, men of nomadic habits, and often coming from unprotected parts, are liable to spread the disease, and thus to greatly increase the percentage both among men and women at a given station. This would cease were the Acts more generally applied. But if we consider the condition of the women themselves, and the masses of animated infection which have been got rid of under these Acts, their usefulness from a sanitary point of view becomes still more apparent.

Let us now inquire for a moment into their moral and political effects, for it is with regard to these that the Acts have been chiefly combated; and here we cannot do better than quote two of the sections of the report, which are well worth general attention as indicating the grounds of opposition taken up by those who have been fighting against the Acts:—

"Among the papers referred to this Commission by your Majesty's Government, and which we print in the Appendix, is a memorial to the Secretary of State, 'adopted at a conference of delegates from associates and committees formed in various towns for promoting the repeal of the Contagious Diseases Act,' and signed F. W. Newman, chairman. We do not propose to criticise this paper at length, nor should we have thought it fair to notice it at all, as representing the views of the opponents of the Acts, had it come before us under less respectable credentials. The memorial reads more like a vindication of the rights of prostitution than a grave argument against the Acts on moral and political grounds. Prostitutes, it is urged, 'value their personal liberty as highly as other women do,' and to shut up a diseased street-walker in a Hospital until she is cured would be 'to change the whole structure and arrangement of her life; the relations which she may have formed would be abruptly ended; milliners, dressmakers, sempstresses, domestic servants, etc., who eke out a precarious existence, or provide themselves with coveted luxuries in the form of dress, etc., by recourse to occasional prostitution, would at once lose their business connexions, or if in situations would be discharged.' One of the best apologies for these Acts, if they need apology, consists in the fact that they deter the class of women referred to in the above-quoted paragraph from resorting to prostitution to 'provide themselves with coveted luxuries,' or even 'to eke out a precarious existence.' The rest of this paper consists mostly of frivolous objections to the machinery of the Acts."

"The objections urged by the opponents of the Acts, which are worthy of serious notice, may be stated as follows:—1. That the Acts are designed to provide sound prostitutes for soldiers and sailors, and that this is implied in their title. 2. That such legislation, by rendering vicious indulgence less hazardous, has a direct tendency to promote immorality. 3. That the protected districts are, in fact, resorted to by libertines, and that married men and youths are induced to visit the registered women by the security they are supposed to offer of freedom from contagion. 4. That the practice of registering prostitutes, and subjecting them to a periodical examination for the purpose of ascertaining whether they are in a fit condition to follow their trade, is in itself an outrage upon public decency and morality. 5. That such a system is virtually a recognition by the State of the trade of prostitution. 6. That the compulsory Surgical examination of the women at stated intervals is calculated to remove any lingering sense of shame in the subjects of such operation, and to harden them. 7. That the increased gains of prostitution consequent upon the improved condition of the women offer a temptation to girls to enter upon this way of life. 8. That it is unfair to exempt men from the restraints and regulations to which women are subjected. 9. That the Acts are opposed to the principles of constitutional law."

The audacity of the memorial referred to is something sublime, and the dignified rebuke of the Commissioners most amply justified; but it ought to teach the religious party opposed to the Acts what they must submit to if they receive as allies the political enthusiasts to whom religion is as nothing, and what they are pleased to call "political freedom" everything. An alliance of such men as the Rev. Drs. Guthrie and Rigg with Professor Newman and Mr. Baxter Langley is ominous of future dissension.

As to the objections here stated, of which the first is that the Acts are designed to provide sound prostitutes for soldiers and sailors, we may say that undoubtedly it is the duty of the State to keep these men as efficient as possible, although we refuse to acknowledge that it is the duty of the State to provide them with the means of sinning with impunity. The question is—Has the State gone too far in what it has done? That remains to be seen. With

regard to objections 2 and 3, they rest on no ascertained foundation of fact. Undoubtedly a certain number of men are kept back by the fear of acquiring disease; but there is a sufficient number so absolutely reckless that disease or no disease is all the same to them, provided their passions are for the time being gratified. Then, again, it must be considered what is the tendency where prostitution is at a minimum. Experience undoubtedly shows that it is to increase seduction and illegitimacy; at best, it is a choice between two evils.

Next, as to the outrage on public decency and morality inflicted by registering and examining prostitutes; we can hardly see the force of this objection. We are quite prepared to admit that prostitution itself, as it now exists, is an offence and a scandal to public morality. We cannot see that registering names already too well known, and examining women from time to time—in their own interest, quite as much or more than in that of the public—adds anything to this offence. They say that this is State recognition, and against this recognition the thunderblasts of the divines are chiefly directed; but surely recognition or no recognition does not alter facts. There the thing exists, and is continually obtruding itself on our notice in all its horrid detail; and what is the good of trying to ignore it? If any good is to be done, it must be recognised, inasmuch as it already exists. The ostrich does not escape by hiding its head in the sand. The next objection stated is, that compulsory examination is calculated to debase and harden women; on this subject we have but to point to facts. Properly conducted, it is notorious that they do nothing of the kind.

It must be admitted that with diminished numbers the gains of the class must increase; but, on the other hand, the diminution in the number of profligate women is in itself a very great advantage. It is unfair, say they, not to subject men to like restraints. Quite so, were the conditions similar—that is, were there a class of male prostitutes—which Heaven forbid! Meantime, the two sexes are on a totally different footing. The acts, they say, are opposed to the principles of constitutional law. This objection we simply put on one side; street-walking and harlotry generally are equally so.

We pointed out, last week, that the Commissioners admit that the Acts have been carefully worked, not a single instance of abuse or ill-treatment having been proved, notwithstanding assertions to the contrary; and this, considering the powers placed in the hands of the police, must be pronounced satisfactory. But when we turn to the recommendations of the Commissioners we have but little reason to be pleased. One division of them would have the Acts entirely abolished, another would have them maintained and extended; the consequence is a compromise: periodical examinations are to be abolished, and the original Act of 1864 enforced. Accordingly, information having been laid that a certain woman is diseased, she is to be examined, and, if so found, to be sent to Hospital and there detained until well; women applying voluntarily are also to be detained. We need only point out that women, as a rule, do not apply for relief until they are unable to continue their trade; that in the case of syphilis it may be some weeks after infection before any sore makes its appearance, whilst the infecting party may not be known to the infected; and that experience acquired in working the Acts of 1866 and 1869 shows that information thus given is seldom reliable. The voluntary system does not work, because patients leave before they are cured, on the most frivolous pretences, or on no pretence at all. The Commissioners accordingly recommend that power be given to detain them until well; but this would never work in an ordinary Hospital. With one of the recommendations of the Commissioners we cordially agree—that is, that the Acts should be carried out under the Home Secretary, rather than by the War Office and Admiralty; but their recommendation to do away with periodical examinations, whilst admitting that "it is the most effectual mode of dealing with venereal disease," we can only regard as a symptom of weakness. We, therefore, incline to give more support to the protest signed by such men as Dr. Paget, Dr. Wilks, and Mr. Holmes—a protest which, in our eyes, is more weighty than the whole report.

THE CENSUS OF 1871.

(*Concluded.*)

In our previous number we noticed some of the most striking points recorded by the Registrar-General with reference to the population of England and Wales and of the United Kingdom generally. The history of the amazingly rapid growth of London since 1801, when the first English Census was taken, is full of interest to politicians, social economists, and Physicians. In 1801 the population of the area of 77,997 acres comprised within the bills of mortality was 958,863; the same area in 1861 contained 2,803,989 inhabitants, and in 1871 its population amounted to 3,251,804. The superficial space for each person in 1871 is ·02 of an acre. There are 41·69 persons to each acre, and 26,682 persons to a square mile. In the Welsh division, the most thinly inhabited part of the country, there are 3·60 acres to each person, ·28 persons to each acre, and 178 persons to a square mile.

On the Census night, 1871, it was found that only 74,732 persons slept within the boundaries of the City proper; at the Census of 1861 the number in the City was 112,063. The decrease, therefore, in the ten years amounted to 37,331, or nearly one-third of the number recorded in 1861. In order to determine the numbers in the City, the Corporation took a day census in 1866, by which it was found that, in addition to the ordinary sleeping population, the mercantile men engaged in the City daily amounted to 170,313. The numbers have probably increased since that date. In the early ages the City covered rather more than a square mile of ground, and remained stationary during the middle ages; but the settlement of a numerous population beyond its limits rendered necessary the extension of the bills of mortality in 1604, and again at various intervals till 1846, when the area included in the bills of mortality assumed its present dimensions. In order, however, to arrive at a correct idea of the population of London, it must be estimated according to other boundaries as well as those of the municipality and the bills of mortality. The population within the Parliamentary boundaries on the Census night was 3,008,101; within the limits of the Metropolis Local Management Act, 3,264,530; within the London School Board District, 3,265,005; and within the police circle, extending in radial lines from twelve to fifteen miles from Charing-cross, and covering 687 square miles, equivalent to a square of territory 26¼ miles to the side, 3,883,092.

The population within the tables of mortality has gone on increasing at a decreasing rate, because the building area is limited, but the actual population within the twelve to fifteen miles has increased rapidly and steadily, or rather at a slightly increasing rate of 1·88 per cent. per annum.

The population of the ring round the district of the Metropolitan Board of Works in 1851 was 318,499, in 1861 it was 418,731, and in 1871 it is found to have increased to 631,288. It has, therefore, very nearly doubled itself in twenty years, and during the last ten years has increased 4·19 per cent. per annum, or more than 50 per cent. This area, with its rapidly increasing population, being shut out from the system of sewers lately created, there is no adequate system for its sanitary purification. The Registrar-General is, therefore, quite justified in the expression of the opinion that it is in imminent danger. We would urge upon the local boards the advisability of taking prompt action upon this warning of the Registrar-General. The work is a necessity which cannot be avoided or postponed, except at the risk of ever-present and ever-increasing sickness and mortality among a population which has shown such a rapid rate of increase. The magnitude, expense, and difficulties of the work will increase the longer it is deferred. True economy of money, health, and life dictates that not a

day should be lost in taking, at least, the initiatory steps for the establishment of such system of sanitation as may be most suitable to the local circumstances of each district.

The facts and figures which we have extracted from the report now before us appear to us of a sufficiently interesting nature to redeem in a great measure the study of vital statistics from the character of dryness, with which they are frequently charged. If we had space at our disposal, we could show by further extracts that in the Registrar-General's office the enumeration of vast numbers and the compilation of statistical details are diversified by the study of antiquarian and archæological lore, the relevancy of which to the subject actually in hand, or the suitability of the poetical language in which the results are sometimes expressed—however much such means may have relieved the tedium of office work—is to us hardly apparent.

PROMOTION IN THE ARMY MEDICAL DEPARTMENT.

In reply to Mr. D. Dalrymple's question as to whether promotion by selection is, under the new order of things, to be the rule in the Army Medical Department as well as in the other branches of the army, Mr. Cardwell stated, on Monday night, that, according to the warrant at present in force, promotion to the rank of Inspector and Deputy Inspector-General of Hospitals is by selection.

Whatever the system may be theoretically, its practical result has been to produce a state of stagnation in the promotion of army Medical officers. We have on more than one occasion pointed out the evils resulting from former promotions by selection, pure and simple, of very young men to the administrative ranks. We do not question their ability, or the propriety of their promotion at the time, but the result is, that, while still in the prime of life, they continue at the head of the list, to the direct injury of men of whom many are at least their equals in general ability, and senior to them in years, and consequently liable to removal from the department at the age of 65, at which retirement becomes compulsory, before having attained to the higher and more lucrative ranks. Latterly, selection has, with a few striking exceptions, been so tempered by seniority that men who have on former occasions been passed over still hold on in the justifiable hope—which in some cases has been fulfilled—of their turn coming at last on the grounds of seniority. The consequence is that other men, who, whatever their opinion of themselves may be, are generally reputed as not eligible for promotion, still stop the way.

Selection must, however, be tempered by something or other. We know that seniority has not proved itself the desired adjunct, and must therefore look for something else. We have frequently expressed our opinion as to the nature of the remedy to be employed—namely, the return to the old system of limiting tenure of the inspectorial ranks to a fixed period, and improved terms of retirement to the senior officers of these ranks. We know no reason why, according to Article 978 of the Royal Warrant of 1870 on Pay Promotion and Non-effective Pay, a regimental colonel of the Royal Artillery or Engineers of not less than thirty years' service, who relinquishes the prospect of succeeding to command of a brigade or battalion, should retire on £600 per annum, and by Article 989 of same Warrant a deputy controller of thirty years' service, ranking as colonel, can retire on £602 5s. per annum, while, according to Article 1007 of the same Warrant, a deputy inspector-general of Hospitals of thirty years' service, and ranking as colonel, can only obtain £465 7s. per annum. Or why the retired pay of a controller, ranking as major-general, after twenty years' service, should be £730 per annum —Article 989—while that of an inspector-general of Hospitals, ranking as major-general, should, after twenty years' service, be £547 10s., and after thirty years' service £684 per annum—Article 1007.

We have also ere now remarked upon the fact that the age for compulsory retirement from the administrative ranks of the Control Department is 60—Article 294 of same Warrant—while in the Medical Department the retirement of inspectors and deputy inspectors-general does not become compulsory till the age of 65.

The above-stated defects and anomalies must, in our opinion, be rectified before the stream of promotion in the Army Medical Department can become other than "unfriended, melancholy, slow."

THE SMALL-POX EPIDEMIC.

During the last two weeks the small-pox deaths in London have fallen to 133 and 135, and the diminution seems to have been pretty equal throughout the metropolis. The returns of the Metropolitan Health Officers point also to a great reduction in the extent of the epidemic. At the same time, however, the Medical officers of the Homerton Hospital tell us in their last report that the death-rate has been exceedingly high, and that a large number of the cases admitted have been of the hæmorrhagic type. Large numbers of unvaccinated children are being received into all the Hospitals, and this fact has induced the Asylum Board to call the attention of the several parish authorities to this evidence of neglect. We wonder whether they expect anything to come of this. So far from multiplying precautions, boards of guardians are just now congratulating themselves that the epidemic is dying out, and are rather disposed to relax than to augment their efforts for its suppression. An authoritative warning that they are not yet out of the wood ought nevertheless to be given, and that it is quite within the range of probability that, although the small-pox may subside during the summer, a renewal of the outbreak may occur towards the close of the year. Should such unfortunately happen, and should the threatened epidemic of cholera become a fact, they will have plenty of work on their hands, and the Asylum Board's Hospitals will be none too many for the wants of the metropolis. Surely, with such a prospect as the Registrar-General holds before their eyes this week, guardian boards should bestir themselves in such a manner as shall insure, at all events, not having two enemies to confront. An invincible barrier to the one may be certainly raised by universal vaccination and revaccination, and the other may be shut out by such sanitary measures as are equally well ascertained to be effective against our Asiatic foe. If they cannot or will not do these things, the sooner local administration in sanitary matters is abolished, or the sooner local administrators can be made to feel that they are personally responsible for the evils arising out of their *lâches*, the better.

THE WEEK.

TOPICS OF THE DAY.

The scheme for the formation of a Conjoint Board of Examiners has been accepted in its general plan by the Royal College of Physicians and the Royal College of Surgeons; but there are still important financial questions to be settled, and these, we believe, have been referred to a committee for consideration. It is clear that the Royal College of Surgeons will not be justified in throwing away any part of the revenue which they now spend in a manner so useful and beneficial to the Profession and the nation for the sake of a confessedly imperfect attempt at the formation of a Conjoint Board, which cannot possibly be a final arrangement, and which, in our opinion, is not calculated to diminish, but to increase, the competition between the English College and the Colleges of Surgeons in the sister kingdoms. It would be simply a suicidal act for the Council of the College of Surgeons to sacrifice a large part of the annual income which is now spent in maintaining the Hunterian Museum and their splendid library, for the mere sake of taking part in a partial scheme which may not even include all the Examining Bodies in England,

and which, it seems probable, will not be readily followed by the Examining Bodies in Ireland and Scotland. In the present state of public business and of political parties, it is clear that there will be no more chance of a Medical Bill passing next session than there has been in the present. The Medical Profession in Ireland are not likely to bring about a fusion of Trinity College, Dublin, and the Queen's University; and while these two bodies remain separate there can be no one-portal system as far as Irelaud is concerned. Under these circumstances, we maintaiu that the Royal College of Surgeons of England is not justified in diverting funds, which have hitherto gone to support the grandest monuments of Medical culture and science in the whole empire, into other channels for the sake of setting up a Conjoint Board which is confessedly imperfect as regards England alone. The Council of the Royal College of Surgeons would be wanting in their duty to the Fellows and to the public if they were to give their sanction to any diminution of the College revenues. Of the Universities, the University of London, we hear, on Tuesday decided to accept the scheme of the Colleges.

We are glad to see that a question is to be put in the House of Commons by Mr. Bentinck on the subject of fees to Professional witnesses in the law courts. The question has been suggested by the case of Mr. Oliver Pemberton, who was subpœnaed to go from Birmingham to Carlisle to give his Professional evidence in the trial of the assailants of Murphy, the "Protestant lecturer," and was only allowed one guinea per diem and second-class railway fare. The miserable scale of fees allowed to Professional witnesses by the law has long been felt an injustice by Medical men. We are glad that Mr. Pemberton's just remonstrance has brought the matter prominently forward.

An appeal has been made in the columns of the *Times* newspaper to the public for a subscription to aid an old man, Mr. Stephen Jenner, who is said to be the grandson and sole representative of the discoverer of vaccinatiou. Poor Stephen Jenner was originally intended for the Medical Profession, but from misfortune his career as a student was not completed. He supported and brought up a family, eking out a very small income by exerting some ability he possessed as an artist. He is now an aged man, living on 10s. a week in a cottage in the parish of Berkeley. He was sitting at breakfast with his grandfather when the latter was taken with the apoplectic fit from which he died.

The Committee on Baby-farming have resolved to recommend compulsory registration of births and deaths, compulsory registration of nurses receiving two or more alien children to nurse under one year of age, and compulsory registration of private lying-in establishments.

There is a vacancy for a Physician to the Fever Hospital, occasioned by the retirement of Dr. John Harley and his appointment at St. Thomas's. An honorarium of £100 a year is attached to this office. There is also a vacaney for an Assistant-Physician to the Children's Hospital, Great Ormond-street. There are already several candidates for this appointment.

At a meeting of the weekly board of the Westminster Hospital on Tuesday, the 25th inst., to receive applications for the appointment of Surgeon and Assistant-Surgeon, Mr. Pearse, the senior Assistant-Surgeon, was recommended for the appointment of full Surgeon. Two gentlemen applied for the vacant Assistant-Surgeoncy—Mr. Cooke and Mr. Roberts. Mr. Cooke has been studying for some time at the Westminster Hospital with the view of qualifying himself for a staff appointment, and has recently obtained the Fellowship of the College. Mr. Roberts has held several public appointments, and will have the advantage of the St. George's influence. These two gentlemen have intimated their intention of canvassing the governors. The election is advertised for August 4.

In the action between Dr. Dyte and the St. Pancras Guardians, of which we published an account last week, it will be remembered that Dr. Dyte was nonsuited on a mere point of law. The St. Pancras Guardians contended that there was no legal contract, although they could hardly deny that there was an understood one. Dr. Dyte had leave from the judge to move the Court to set aside the nonsuit, and enter a verdict in his favour for the full amount claimed, subject to the point of law reserved. This, of course, he will do, and we hope he will be successful in obtaining a victory over his notorious and tricky opponents.

The inquest, at Dublin, on the unfortunate Head-Constable Talbot resulted in a simple verdict of death "from the effects of a gunshot wound, under which he was suffering when conveyed to the Hospital" four days before death. An attempt was made, in the interests of the man who is in custody on the charge of having fired the shot, to throw discredit on the Surgical treatment of the case; but the evidence was hopelessly unassailable and straightforward. The proceedings on the last day were enlivened by "a difference" between one of the Hospital Surgeons and the prisoner's counsel, which was very judiciously and successfully treated by the coroner by an adjournment fortwenty minutes, in order to allow the gentlemen "to cool somewhat."

CERTIFICATES OF DISINFECTION.

At the Islington Petty Sessions, held on July 20, Mr. and Mrs. Chauffot, of 37, Albert-street, Barnsbury, were summoned for an offence against the 39th section of the Sanitary Act, 1866, in that they had knowingly let to a Mrs. Fowler two parlours in the above house, in which, just previously, a Mrs. Moxon had had small-pox, without having the rooms previously "disinfected to the satisfaction of a qualified Medical Practitioner, as testified by a certificate from him." It appeared from the evidence that Mr. Chauffot, who occupied the second floor of the house, had small-pox in May, being attended by Mr. Eugene Goddard, and that the Moxons took the parlours on June 3, at which time Mrs. Chauffot told them that her husband had not had small-pox, but only an attack of rheumatic fever. On June 10 Mrs. Moxon also was attacked with small-pox, and was attended by Dr. Carey, of Barnsbury-road. She recovered, and the Moxons moved to other lodgings on June 24. While Mrs. Moxon was ill, the sanitary inspector, Mayes, called at the house, and handed to both Mrs. Moxon and Mrs. Chauffot a copy of Dr. Ballard's printed directions, which include a summary of the principal penal sections of the Sanitary Act, and full directions for making a proper disinfection. On June 26—that is to aay, on the Monday following the Saturday on which the Moxons left—Mrs. Chauffot let these rooms to Mrs. Fowler, without saying anything about the small-pox. The inspector finding this to be the case, informed Mrs. Chauffot that she had broken the law, and served her with a notice for disinfection. Mrs. Chauffot called then on Dr. Ballard, at the Vestry Hall, who asked her for the Medical certificate, when she said that the rooms had been disinfected under the direction of her Medical man, and presently she returned with the following certificate written on the back of her notice for disinfection:—"I certify that the house 37, Albert-street, Islington, occupied by Mr. Chauffot, has been duly disinfected and fumigated according to my directions and to my satisfaction.—(Signed) Eugene Goddard, M.R.C.S. Eng., etc., July 3, 1871." Mr. Goddard was put into the witness-box in support of the prosecution, and said that he knew nothing whatever about Mrs. Moxon, nor about the two parlours. All he knew was that he attended Mr. Chauffot for small-pox, and that his directions for keeping the patient in one room had been faithfully carried out. He gave directions that sulphur should be burned, the room (second-floor room) washed with carbolic acid, and any woollen garments that had been in contact with the patient

dipped in the acid. On being shown his certificate, he stated that he only intended it to apply to the second-floor back room. The word "house" was put in inadvertently; it ought to have been "room." He did not know of his own knowledge that any disinfection had been carried out, but he gave the certificate, as such certificates were commonly given, on the faith of the female defendant's statement, that she had carried out his instructions. In reply to the charge, the defendants stated that the parlours had been disinfected, and produced a witness, who said that she burned sulphur in them on June 27, washed the floors and paint with chloride of lime on the 28th, and with soft soap on the 29th. Nothing had been done with the papered walls or ceiling. The Bench convicted the defendants, and inflicted a mitigated penalty of forty shillings. The Chairman said that with regard to the certificate given by Mr. Goddard, the Bench felt that he had acted very improperly, and trusted that in future no Medical man would give a certificate unless he could certify by personal observation that the disinfection had been properly carried out. Unless this was done the certificate was of no practical use whatever.

In these remarks we most heartily concur. The object had in view by the Legislature in requiring a Medical certificate clearly was to insure, so far as such a thing can be insured that the contagion deposited in an infected room shall be destroyed or rendered absolutely innocuous. "Contagion" is not a thing like dirt, which can be seen, and its destruction or removal ascertained by mere inspection. It is a subtle matter often most difficult to eradicate; and in view of this difficulty, and at the same time to protect as far as possible the privacy of a dwelling-house, the law is satisfied if any Medical man asserts that he is satisfied that the proceedings adopted have been sufficient to bring about the requisite result. Of course Medical men will differ in opinion as to what is sufficient for this purpose, but that is a thing which cannot be helped. The Health Officer of Islington, judging from the directions he has issued for ordinary disinfection, is not satisfied very easily. His programme demands fumigation with sulphurous acid, washing of the floor, ceiling, and walls with carbolic acid, stripping and burning of paper from the walls, and, finally, limewhiting and scrubbing—and probably few competent judges will be found to affirm that less than this will insure the destruction of a deposited contagium; and he has taken great pains to indoctrinate all the Medical men in his district with his views. Anyhow, it is obviously necessary in so important a matter as this that a certificate should only be given when the Medical man has, according to his lights, satisfied himself that the contagium has been destroyed. Great credit is due to the Sanitary Committee of the Islington Vestry, and to their officers, for their courage in prosecuting this case in the face of the Medical certificate, which they had reason to believe was obtained and presented merely with the object of blinding their eyes. We have been given to understand that this is not the first occasion on which it has been attempted to foist certificates, similarly loosely given, upon the Medical Officer of Health, but that Dr. Ballard has on every such occasion informed the persons presenting them that, if their validity were persisted in, he should obtain a summons and put the certifying Surgeon into the witness-box. He has now fulfilled his threat, and until the decision of the Islington Justices is overruled, it must be understood that the law will not permit of evasion in such a matter, where the welfare of the public is so deeply concerned.

DUST-BINS AND DISEASE.

The amount of preventible disease that occurs through negligence and filth is almost incredible. Dr. Whitmore, in his last report of the health of St. Marylebone, says—"I regret to have occasion again to refer to nuisances existing in this parish, for which many of the wealthy classes are responsible. I allude to the filthy and most offensive state of their dust-bins. The decomposition of this animal and vegetable matter is, undoubtedly, injurious to the health of those persons who are compelled to pass the greater portion of their time in the basements of houses where such nuisances are permitted; and many cases of sickness from diarrhœa, and even fever, have come to my knowledge, which I could not attribute to any other cause."

THE APPROACH OF CHOLERA.

The *Times* has remarked on the probability that cholera may again visit this country, and warns us that it is of vital moment we should show a bold front to the enemy by the formidable means of defence we have at our disposal to ward off this destroying foe. Two Medical officers of the Bengal army—Surgeon-Major Atchison, and another signing himself "Surgeon Bengal Army"—have written to the *Times*, advocating the necessity of hygienic measures being adopted; and we must endorse their views on this subject, as their experience in a land where this fatal disease may be said to be endemic must be considerable. We have had a lesson taught us with reference to the recent epidemic of small-pox, which has assumed such high proportions among us, due, we are fully impressed, to the neglect of ordinary hygienic measures.

That epidemic disease may be warded off and materially modified in its virulence by proper preventive means there can be little doubt—indeed, some of the recent arrangements in several of our provincial towns to segregate patients affected with small-pox have been attended with happy results.

There is one point mentioned in a letter to the *Times*, signed "Surgeon, Bengal Army," which we think might be carried out in London without much difficulty—namely, flushing the streets with water, having previously sprinkled carbolic acid or Condy's fluid on their surface. The plan of irrigating the streets was carried out in Paris during the reign of the late Emperor with great benefit to public cleanliness and comfort, and we would urge the authorities to adopt this plan of freeing our streets from offensive and deleterious rubbish. The addition of carbolic acid would act in a most beneficial way as an antiseptic, purifying the streets as well as the drains.

THE MEDICAL COMMISSIONERS' REPORTS.

Dr. Brewer, M.P., has given notice of his intention to ask the Secretary of State for War if he would lay upon the table of the House so much of the reports of Drs. Gordon and Wyatt in relation to their recent sojourn in Paris, and in connexion with the French army, as will throw light upon the character and treatment of wounds received during the late war and siege, and any successful or defective system of hygiene which the reports may contain, for the guidance or caution of the military or civil Medical and Surgical Profession. This is the course which we have already suggested, and which, if adopted, would be certain to confer a benefit upon the Profession in general, and hardly likely to compromise us in our diplomatic relations with the French Government.

SECTARIAN MEDICINE.

Some excitement has been caused in Kingston with reference to the appointment of a Medical officer to the Dispensary of that place. At a meeting held last week to fill the vacancy caused by the resignation of Dr. Ledwith, the following facts were elicited. Considerable agitation had been raised to secure the election of a Roman Catholic to the vacant office. A lengthy correspondence had passed between the solicitor to St. Michael's Society and the Poor-law Commissioners. In the letters of the former the Commissioners were requested to take steps to cause the appointment of a Roman Catholic Doctor to the post, who would have the confidence of the sick poor of Kingston. The Commissioners, in reply, stated that every effort should be made to elect an efficient Medical officer, without any reference to his religious opinions. Ten candidates

were selected. After two ballots had been taken, the choice of the Committee fell upon Dr. O'Flaherty, who was elected by a majority of one over Dr. Beatty. Dr. Boyd was the favourite of the Roman Catholic members of the Committee, five or six of whom resigned because a guarantee would not be given to appoint a Medical officer of that religion. It is probable that, had these gentlemen remained at their post, Dr. Boyd would have been elected. We think the Poor-law Commissioners acted with great propriety in refusing to endorse a very foolish and mischievous proposal—a proposal calculated in every way to foster discontent and bad feeling.

IRON SMALL-POX HOSPITALS.

Dr. Whitmore, in his report on the iron small-pox Hospitals in St. Marylebone, gives the results of the treatment of cases for a period extending over twenty-four weeks. During this time 219 patients were admitted suffering from small-pox and from four other diseases; but these were sent away immediately. Of these 215 cases, 123 were males and 92 females.

"The number of patients who died from the disease was 37, of whom 19 were males and 18 females; these constituted 17·2 per cent. of all the cases under treatment, or about one in every six. This corresponds very closely with the rate of mortality amongst the patients in nearly all the other small-pox Hospitals; and when it is considered that a large proportion of our cases consisted of the worst types of the disease, the number of fatal cases is by no means excessive. Of all the cases admitted, 170 had been vaccinated, 4 had been inoculated, and 41 were altogether unprotected either by vaccination or a previous attack of small-pox. Amongst the fatal cases, 20 are reported to me as having been vaccinated and 17 unvaccinated, from which it will appear that amongst those patients who had been vaccinated 11·7 per cent. died from the disease, and amongst those who had not been so protected 41·4 per cent. died. With regard to several cases reported as having been vaccinated, Mr. Crosse, the Medical attendant, observes that 'many had no marks of vaccination, and in several they were very indistinct, so as to be altogether doubtful.'"

Dr. Whitmore thinks much may be said in favour and much against the adaptability of the Hospitals for the purpose employed. They were lofty, capacious, well ventilated, and free from damp. They were subject, however, to draughts of cold air. It was difficult to keep the male and female patients, particularly when convalescent, apart, and the closet accommodation was very defective. The following practical remarks are of high importance:—

"On the question of future provision for epidemic outbreaks in the metropolis, such as the one from which we are now suffering, I am of opinion that large permanent buildings for the purpose are not desirable for many reasons. In the first place they are costly, and entail increased taxation; secondly, no reasonable number of such buildings would provide sufficient accommodation should the epidemic be unusually severe; and lastly, on the subsidence of such epidemic they would be comparatively empty. In the place of permanent buildings, I would suggest the construction of a considerable number of temporary iron Hospitals, which can be put up, as has been proved, in less than a week, and which immediately upon the outbreak should be erected on appropriate sites round London. From week to week, or day to day, their number could be augmented as the epidemic increased, and as it declined they could be taken down and stowed away, to be kept in readiness for the next visitation."

THE CHARGE OF POISONING AT CAMBRIDGE.

A case is being investigated at Cambridge which illustrates the difficulty of Medico-legal investigations. A woman, named Charlotte Day, is in custody on a charge of poisoning her husband with arsenic. The man died under suspicious circumstances and with suspicious symptoms. Some bread and pudding of which he had taken were submitted to Dr. Liveing, who, in one analysis, found no poison, but in a second analysis was convinced that he had discovered the presence of arsenic. Dr. Letheby has since been employed in the case, and has failed to discover any trace of poison in the stomach of the deceased.

DEATH FROM INCAUTIOUS USE OF PURGATIVES.

Last week an inquest was held at Bridlington Quay, to inquire into the circumstances attending the death of a maiden lady, named Anne Dowsland, aged 47 years. It appeared in evidence that the deceased had been out of health for some time, and was suffering from an "asthmatical cough." She was in her usual state of health on Monday week, and went out. It appeared that she had purchased two boxes of pills, one from a "Medical herbalist," and the other from a "Dr. Rooke." These were purgatives. She took both kinds of pills at one and the same time, and was heard to say "that she could not understand what it was that made her inside feel like burning coal." She was very much purged up to the time of her death, which occurred somewhat suddenly on the Sunday following. She had taken several doses of the pills. Dr. Allison stated that he had attended the deceased in March and April last, when she suffered from cough, pain in the chest, and difficulty of breathing. After several weeks' treatment, which consisted principally of warmth, rest, and suitable nourishment, her general health improved, and she was able to attend to her ordinary avocations. He had, assisted by Dr. Nelson and Mr. John Allison, made an examination of the body, which presented an extremely emaciated appearance. The lungs were in a state of very great congestion, and in places engorged with decomposed blood, but free from tubercles and the usual indications of consumption; the heart, liver, and kidneys seemed in a healthy condition; the stomach was quite empty, and showed no decided signs of disease; several feet of the intestines were in a state of inflammation, the whole being perfectly empty. Witness was of opinion that the diseased state of the lungs must eventually have proved fatal. Drastic purgatives which produce inflammation would have a depressing influence upon a person suffering from extreme exhaustion. No Medical Practitioner would sanction the employment of extreme purgatives in such a case. It was his opinion that under the existing circumstances the taking of these pills would have a tendency to accelerate death. After a brief address from the coroner, the jury returned a verdict of "Death from natural causes, accelerated by incautiously taking purgative medicine, thereby producing fatal exhaustion." This case is a type of a class which are constantly coming under the notice of Medical Practitioners. There is no more mistaken opinion than the one generally entertained, that "opening medicine can never do harm."

THE "DISCHARGED FEMALE PRISONERS' AID SOCIETY."

The *Daily News* of the 25th inst. contains the description of an institution which, during the past five years, has grown into considerable dimensions and importance under the auspices of some benevolent ladies who have devoted themselves to care for and, if possible, reclaim the lowest and most degraded class of female convicts. It is a startling and, at first view, by no means agreeable fact, that nearly 4000 female convicts are at large with tickets-of-leave, and that the majority of these are in London; but it is satisfactory to be informed that in one of the western and most fashionable districts of London many hundreds of domestic servants are ticket-of-leave women, whom their employers have engaged with full knowledge of their antecedents, and that not infrequently the worst criminals are transformed into extremely good domestic servants. This transformation has been effected by the means adopted by the "Discharged Female Prisoners' Aid Society," which has opened several establishments throughout London to supply a home for released female convicts, to assist those to earn an honest livelihood who have given proofs of amendment, and to give employment to all released female prisoners who will comply with the prescribed rules, and who will work for their maintenance. The parent establishment of the Society is near the Nine Elms Station of the South-Western Railway. The Lady Superintendent is Miss

Lloyd, and the Honorary Treasurer is Mrs. Meredith, whose address is "Nine Elms House, 6, Upper Belmont-terrace, Wandsworth-road, S."

The women received into this establishment are employed at laundry-work. Some reside in the house, and others come at eight o'clock in the morning and go away at six in the evening; these bring their dinners with them. They earn about 1s. 6d. per diem, and tea is provided for them in addition to their wages. The work done by these women is not only advantageous to themselves, but confers immense benefits upon the poorer classes of the neighbourhood, who have great difficulties in getting their clothes washed at home, but who, for the small charge of 6d. per dozen articles, can have their soiled clothes disinfected (if necessary), washed, mangled or ironed, and made ready for use again. The clothes of families suffering from infectious diseases are disinfected and washed by the newly-discharged convicts in a shed entirely separate from the others. Carbolic acid is employed freely, and the danger of infection is not considered to be very great. The Lady Superintendent is most anxious to have a disinfecting-chamber, in which the clothes could be thoroughly baked, but funds are wanting to supply this. As a means of reclamation to the unfortunate women themselves, and of supplying to the poorer classes a sanitary benefit of almost incalculable value, the institution to which we allude is one of national importance, and we trust that the humane and enlightened efforts of the ladies who have established it may not be rendered unavailing in their struggle with the moral and physical ills of life through public apathy and want of the necessary funds.

FROM ABROAD.—MILITARY REORGANISATION IN FRANCE—PUNCTURE IN GASTRO-INTESTINAL PNEUMATOSIS.

Army organisation is a vital topic of the day in France, and M. Lagneau, in a paper read at the Académie de Médecine on the 18th instant, stated what he terms the Medical and Anthropological Considerations of the subject. These he sums up as follows:—1. Defective stature should no longer be admitted as a ground for exemption from military service. Such exemptions, owing "principally to the diversity of the ethnic elements," prevail very unequally in the different departments, and would in some of these, were the men accurately measured, free from service one-eleventh of those examined. Boudin, Larrey, and others have shown that, with respect to military aptitude, these men are often of a better conformation than those of a higher stature. 2. In like manner, slight defects should cease to secure exemption—such as flat-foot, varices, varicocele, bad dentition, stammering, harelip, myopia, strabismus, *teigne*, etc. These minor infirmities do not render their subjects unfit for certain military duties, while they abstract from the service of the country a still larger number of men than does deficient stature. Regarding these exemptions in relation to their unequal geographical distribution, which is often due to the different ethnological conditions of the population, they will be found to favour the transmission of the infirmities (often hereditary) that give rise to them by facilitating the marriages of the persons so exempted, who are left in their homes, while the valid men are sent to the army. 3. Legalised dispensations from service should be allowed only when the importance of the social duties for which they are claimed clearly overrides the duty of every man to join in the common defence. 4. Military service should be rendered obligatory upon all by the abolition of drawing by lot and of substitutes; but it should be limited in the time of peace to the period strictly necessary for the acquisition and retention of military instruction. Not only is this an equitable and, in a military point of view, an indispensable obligation, but it is also advantageous in its anthropological bearing, by allowing of a reduction in the time of service, to which end, also, the proposed drilling in lyceums and schools will contribute. The importance of such reduction is seen from the fact, that in time of peace the mortality among soldiers is almost double that furnished by civilians of the same age. Moreover, the more the duration of military service can be abridged, the fewer will be the obstacles to the marriage of young men, while the number of illegitimate births (which are followed by great mortality) will be also fewer. In order to favour the contraction of marriage, the men, after having acquired military instructions, might be called out in successive levies, according to their social position, the unmarried being levied before the married men of the same age. 5. Men having similar geographical and ethnographical relationship should be incorporated in the same regiments, battalions, and companies. This rule, as MM. Colin and Behier have observed, would tend much to the prevention of nostalgia, while it would allow of the application to the soldiers of the different corps of hygienic rules in harmony with their former habits and their special ethnical peculiarities. 6. Soldiers should be kept in rural camps of instruction, and not in barracks in towns. MM. Boudin, Levy, and numerous other authorities have shown that the overcrowding of soldiers favours the development of phthisis and of typhoid and eruptive fevers. In the camps mortality is diminished, and venereal diseases (from which, in some years, one-eighth of the whole force suffers) are less frequent. In these, too, when distributed over different regions of the country, rules of regimen and hygiene conformable to former habits and present aptitudes can be carried out; while the attracting of the young men from the country, with its train of ill-consequences, is avoided. In time of war, also, the rural camps are far preferable to city barracks, the overcrowding of which favours the production of grave epidemic diseases, such as typhus, cholera, etc. 7. The Military Medical Body should be rendered independent of the Military Intendance. As M. Chenu and others have amply shown, the maintenance of the sanitary condition of the army absolutely requires that the Medical officers, who alone are competent to the task, should solely be charged with the proposal and execution of the hygienic measures deemed necessary for the health of the soldier, the Intendance having no power to oppose or delay the application of these.

In relation to this last point, we may refer to an important letter which has been published in the *Journal des Débats* by M. Legouest, the distinguished military Surgeon, and reprinted in the *Gazette Hebdomadaire*, July 21. In this he calls upon French statesmen to seize the opportunity of passing the new military law to remedy this crying grievance of the Medical service, which not only cripples its energies, wounds its dignity, and wastes its power, but acts powerfully in preventing young Medical men from joining the service, the recruiting of which becomes every day more difficult. How the public suffers from this predominance of the Intendance and annihilation of all Medical initiative and executive power, he exhibits by the great sickness and mortality of the French armies as compared with the American and English, in the first of which the Medical element is entirely unfettered, and in the last possesses much liberty of suggestion, direction, and action. He says that, enlightened by numerous publications and the operation of recent events, the commanding officers and the public at large have severely condemned the present system. That such a public opinion should be thoroughly aroused he deems essential; for, as he adds, it has been long acknowledged that something must be done, and the best intentions to do it have been exhibited; but the Ministers of War, one after the other, have up to the present time had their convictions shaken by routine regulations, and, tired out rather than persuaded, have left to their successors the task of rendering common sense triumphant.

The tremendous discussion on purulent infection which has now occupied the Académie de Médecine for some months past—during which the orators, one after another, read masses of written matter equivalent to bulky pamphlets—has almost excluded all other subjects. Professor Fonssagrives, of

Montpellier, however, succeeded recently in getting in a paper on "Puncture in Gastro-intestinal Pneumatosis." He observed that although of such common occurrence in veterinary practice, it was first practised in France by M. Nélaton, at the suggestion of Recamier. Since 1866 M. Fonssagrives has himself had several opportunities of observing the harmlessness of puncture of the intestine in cases of pneumatosis in which the symptoms seemed to threaten death. The operations were performed by a hydrocele trocar, and were not followed by any inflammation. He thinks, however, that an exploratory trocar should be preferred. In some researches he has made upon the subject he finds that it has been performed ninety times on about sixteen individuals, having been practised fifty times in the same subject. He thinks that the operation should be more commonly resorted to, without allowing the symptoms to become so much advanced.

In the discussion which ensued, M. Bouley wished merely to call the attention of the Academy to the innocuity with which puncture of the abdominal organs is performed in all the domestic animals. In them it has, indeed, very often to be practised, especially in the herbivora. Its success in the ruminants led to its application to the horse, and it is now a matter of ordinary practice. M. Depaul referred to a case of a young woman under M. Alphonse Guérin, who was relieved of what seemed very threatening symptoms by means of four successive punctures. He has himself repeatedly seen cases in which puncture was indicated, and he referred to one in which the pneumatosis proved fatal at the end of pregnancy, the Practitioners called in in consultation not sanctioning the operation. The accoucheur, either at the end of pregnancy or after delivery, sometimes meets with most serious cases of pneumatosis for which puncture is indicated. He recently met with a case of a young woman brought to the point of death from asphyxia due to gastro-intestinal pneumatosis. Two punctures discharged a large quantity of fetid gas mixed with other matters, and the patient was saved. M. Piorry has practised puncture with success in a certain number of cases in which the accidents were most alarming. He observed, however, that it is not sufficient to merely give discharge to the gases by puncture, but that the causes or anatomical lesions which give rise to the intestinal occlusion should first be most carefully sought for by every means of exploration, and especially by percussion. Very frequently it will be found that a mere accumulation of fæcal matters at the end of the large intestine has caused the occlusion, and admits of remedy by means of purgative enemata, without any operation. The place of election, when this is necessary, should be on the level of the cæcum, at the point where this portion of intestine is not covered by peritoneum. M. Barth observed that in cases of peritoneal tympanites, which are exceedingly rare, and in gastro-intestinal tympanites, which is far more common, puncture may be practised without danger. He has himself successfully practised it in a considerable number of cases. Unfortunately, we cannot always tell the precise point of the intestine at which the obstacle is situated, nor yet its precise nature; but in such cases he does not hesitate to make several punctures, whether at the same time or at intervals of some days. The puncture is followed by no ill-effects, since the intestinal fibres, being simply separated by the trocar, retract on themselves after the escape of the gas, and so prevent any effusion into the peritoneal cavity. M. Huguier adverted to the fact that he had caused an instrument to be constructed, with the view of rendering impossible the effusion of gaseous and other matters into the peritoneum in consequence of puncture. It consists in a very sharp-pointed needle, adjusted in a trocar canula, which he terms an *aiguille porte-canule*. It separates the intestinal fibres without dividing them. M. Huguier has many times employed this instrument with success in cases of strangulated hernia, thus saving the patient from the danger attendant upon kelotomy. In cases of internal strangulation we cannot always disperse the tympanites by intestinal puncture, for although we may empty the punctured loop, other loops may be so disposed as not to be capable of evacuation, and the symptom remains unrelieved. M. Verneuil, on principle, is a partisan of intestinal puncture in strangulated hernia and internal strangulation; but he is by no means certain of the practical efficacy of the procedure, which often fails to attain its end, nor even of its harmlessness. There is also a great want of precise indications for its employment. M. Giraldès has practised intestinal puncture both in adults and in children without having met with any accident. In his opinion it is in certain cases an operation of great utility, and especially in internal strangulations, which are due, in his opinion, in one-half the cases to a twisting (*enroulement*) of the intestine upon itself. The puncture giving issue to the gas causes a cessation of this condition. M. Fonssagrives reminded the Academy that he had collected references to eighty cases in which the operation had been performed without any accident occurring, and that with the hydrocele trocar. He believes that the needle invented by M. Huguier would give still greater security. He also repeated that he had only recommended this operation in extreme cases, in which the gastro-intestinal pneumatosis gave rise to asphyxia, and other means had been used in vain. He is of opinion that the arch of the colon is the preferable point for making the puncture. M. Richet has met with a case of essential peritoneal pneumatosis, a case which M. Barth states to be so rare that he only knows of one on record. It occurred in a woman somewhat above 60 years of age, who habitually suffered from more or less considerable abdominal swelling after meals, which after a while disappeared. On one occasion, however, this was not the case, and the patient seemed menaced with asphyxia. M. Richet, when called to the case, was struck with the absence of all outline of any intestinal convolution, and concluded that the gas which had become developed was contained in the peritoneum. He made a puncture by means of an exploratory trocar guarded by its canula, and the force of the jet of completely inodorous gas was such as to extinguish a candle at more than two feet distance. The patient was already in a dying state, and was not saved, nor was any autopsy allowed. M. Gueneau De Mussy had entered some five or six years ago upon an investigation, the results of which were published in the *Gazette Hebdomadaire*, as to the causes which determine the retention of gases within the intestine. He came to the conclusion that it is not always necessary that peritonitis should have previously existed, giving rise to bridles, against which the intestinal folds became strangulated. He believes, with M. Huguier, that there is sometimes produced a sort of bend (*genouillement*) of the intestine, which gives rise to the formation of valves that isolate the intestinal folds from each other and prevent their intercommunication. The puncture of one fold would not, in such instances, liberate the air contained in other folds. This fact enables us to explain differences in the results of puncture. When tympanites is situated in the small intestine, the natural curvature of the folds becomes exaggerated by the distension, and puncture is insufficient; but when the large intestine is the seat of tympanites, the absence of flexion and the large calibre of the folds allow of the gas being easily evacuated, and in such cases puncture is highly useful.

PARLIAMENTARY.—CONTAGIOUS DISEASES—PERSONAL SECURITY OF WOMEN—PAYMENT OF PROFESSIONAL WITNESSES—THE MEDICAL SERVICE IN INDIA—PUBLIC HEALTH AND LOCAL GOVERNMENT—METRIC SYSTEM—LUNATICS (IRELAND) BILL.

On Monday, June 4, in the House of Commons,

Sir J. Elphinstone gave notice that on Tuesday he would ask the Secretary of State for the Home Department what protection the Government are prepared to afford to the public against the obscene and disgusting papers which the members of the late deputation on the Contagious Diseases Act threatened to force into their hands, and which they said it was

their duty to send broadcast, and the subjects of which they declared should be discussed by women and children; and whether such persons can be prosecuted for such proceedings under the Act termed Lord Campbell's Act.

Mr. Jacob Bright asked the First Lord of the Treasury whether he was aware that, in the borough of Southampton, from September last year to June of this year, twenty-nine women went to prison, seven of them going a second time, and two a third time, in some cases with hard labour, rather than submit themselves to the hands of the State Surgeon; whether it was not true that there were, over a considerable portion of the kingdom, agents of the Admiralty and of the War Office, whose business it was to watch women in order to subject them to similar usage; and whether, in the opinion of the Government, the personal security of women in this country was now what it ought to be or such as the law carefully guarantees to men.

Mr. Gladstone: I need not say, Sir, that I have no original knowledge of the facts to which the question of my hon. friend refers; but I have made inquiry, and I understand that the facts are as follows: That between September of last year and June of the present year twenty-nine persons (women) were sent to prison; seven of them were subsequently committed for a second time, and two of them were sentenced a third time, but were only sent to prison twice. With regard to the second question, I am not aware, and cannot learn, that there are over any portion of the kingdom any agents of the Admiralty and of the War Office whose business it is to watch women in order to subject them to similar usage. I understand that the Act of Parliament devolves certain duties upon the police force of the country. These duties are performed, but the War Office and the Admiralty, I am assured, have no agents whatever employed for the purpose indicated by my hon. friend. With regard to the third question, which refers rather to a matter of opinion than of fact, her Majesty's Government have advised the Crown to appoint a Commission, in order to examine whether the personal security of women has all the guarantees on which it ought to rest by the Act. The Commission, as my hon. friend knows, has reported, and the Secretary for the Home Department stated to the House on a former evening that, although he was not prepared to make any immediate proposal on the subject, the report of the Commission is a very proper subject for the consideration of Parliament.

Mr. Bentinck said he would on Thursday next ask the Secretary of the Treasury whether his attention had been drawn to the fact that Mr. Oliver Pemberton, a Surgeon, of Birmingham, had attended as a witness at the Carlisle Assizes in reference to the case of the lecturer Murphy, and had stated that he had only been allowed his second-class fare and a guinea; and also whether the Treasury proposed to take steps to carry into effect the recommendation of the learned judge who presided on that occasion, and who expressed his opinion that a great deal more ought to be allowed.

Colonel Sykes asked the Under-Secretary of State for India whether Drs. Gopaul Chunder Roy and Krishna Dhurr Ghose, who came to England to compete for commissions in the Medical Service in India, and had obtained the prescribed degrees in Medicine and Surgery, but were debarred from reaping the reward of their studies and outlay by the competitive examinations being from time to time postponed on the ground of Medical officers not being required in India, might, nevertheless, be now allowed to compete, with a view to their being placed on a supernumerary list to fill up vacancies as they occur, to avoid otherwise the total and grievous loss to them of their time and money, as their present ages would debar them from competing at any future examinations.

Mr. Grant-Duff: I regret that we have no powers to do what my hon. and gallant friend wishes. When the Government of India informs us that it wants such and such a number of Medical officers, we announce that such and such a number will be selected by competitive examination; but we cannot ask some score or hundred Medical students to enter for a competitive examination, in which the prize would be the chance that the successful candidates might at some indefinite future period be employed as Indian Medical officers. I don't think that would be a fair proceeding either to the Medical schools or to the Government of India.

Colonel Sykes asked when the next competition would be held?

Mr. Grant-Duff: I have not the remotest idea.

The House went into Committee on the Local Government Bill.

On Tuesday,

Sir J. Elphinstone, who had given notice of his intention to ask the Home Secretary whether the Government were prepared to afford protection to heads of families and the public against the "literature" on an indelicate subject which the members of a late deputation threatened to force into their houses, postponed the question until Thursday, in consequence of the absence of the Secretary for the Home Department through illness.

Mr. Baines then gave notice of the following question for the same day:—To ask the Secretary of State for the Home Department (after the question of the hon. member for Portsmouth) whether it will be possible, consistently with the freedom of the press and the rights of the subject, to prevent or punish the discussion of a law of the land, which stands condemned in its fundamental provision by the report of the Royal Commission, and for the repeal of which nearly half a million of persons have petitioned the House this session, on the grounds of justice and morality; whether it will be unlawful to publish in pamphlets or otherwise the report and evidence of the Royal Commission, which this House is itself in course of publishing in Parliamentary papers; and whether the only effectual method of preventing further violations of delicacy will not be to repeal or suspend the principal provision of the Acts which have offended and distressed so large a portion of the community, and which provision is unanimously recommended to be repealed by the Royal Commission.

Sir C. B. Adderley obtained leave to bring in a Bill, founded on the report of the Sanitary Commission, to consolidate and amend the laws relating to public health and local government. In explaining it Sir Charles was interrupted by the customary attempt at a "count out," and this proving unsuccessful, he went on to point out the complications and anomalies, the expense and inanition of our present system, its conflicting jurisdictions and overlapping areas, etc. The Bill, consolidating more than forty statutes, first of all repeals all existing sanitary statutes. Consequently, out of the 450 clauses of the Bill nearly nine-tenths are intended to re-enact certain portions of them. It simplifies areas, concentrates all authority into one department, and there are also other provisions relating to audit and borrowing powers. As a matter of course, Sir Charles added, it was not intended to proceed further with the Bill this session.

On Wednesday,

Mr. J. B. Smith's Weights and Measures (Metric System) Bill was rejected after a long debate on the second reading by a majority of 5—82 to 77.

The Lunatics (Ireland) Bill was withdrawn.

POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

The annual meeting was held on Wednesday last, at the Freemasons' Tavern, Great Queen-street.

Dr. Joseph Rogers, of Dean-street, Soho, presided, and apologised for the non-attendance of several of the members who had promised to be present should their Professional avocations allow of their doing so. Dr. Woodward, of Worcester, Mr. Corrance, M.P., and other gentlemen had written, expressing their desire to attend, and he was extremely sorry at not seeing them present. However, he hoped to see a larger attendance at the dinner. With regard to the financial position of the Association, he had a very satisfactory report to make. They had a considerable balance in the hands of the treasurer, and arrears of subscriptions were coming in every day. They had, however, some work in progress which would tax all their energies and somewhat reduce their means, but there was nothing that need give them any uneasiness in that respect. Mr. Corrance, M.P., had wished to be present to announce publicly his intention of bringing in a bill relating to the laws of the sick poor, and he (Dr. Rogers) was in a position to state that such a measure would receive a large amount of support in the House of Commons. He was glad to find that the Legislature was beginning to recognise the fact that the health of the poor affected materially the position of those who had to maintain them. As the first business of the meeting was to elect the officers of the Association for the ensuing year, he felt that an early opportunity should not be lost of declaring his desire of retiring from

the position in which they had so kindly placed him. Indeed, he was not quite sure whether it would not be to the advantage of the Association if some gentleman occupying a higher social position were elected as their President. He had spoken to Mr. Corrance, M.P., on the subject; but when doing so, he doubted whether it would be hardly fair to ask a county member to undertake duties in addition to those he had to perform, or whether Mr. Corrance would like to occupy such a position before the world and his constituency as President of their Association. Still, he named the matter to that gentleman, and, after some consideration, he said that, if it should be the pleasure of the Association to elect him, he should be happy to undertake the position of President, and do all that he possibly could to advance the interests of their Association, providing that they would allow him to advocate them in a broad and not in a merely Professional point of view. He (Dr. Rogers) would gladly retire in favour of Mr. Corrance; but, if they elected that gentlemen, it would be desirable to have the real presidential work performed by some other member, leaving Mr. Corrance to be their representative in the House of Commons. However, that was a matter which the meeting would have to decide.

Mr. Benson Baker thought they ought to consider well before they followed out the line suggested—namely, the election of Mr. Corrance as their President. He would prefer the duties being performed by one of their own number, as heretofore.

Mr. Milward, of Cardiff, maintained that they ought to do all they possibly could to retain the services of Dr. Rogers. He was the very life of the Association, and he should certainly move his re-election as their President. (Applause.)

Dr. Dudfield, in seconding the motion, maintained that they ought not to have a mere ornamental President. Dr. Rogers had worthily filled the office, and it would be a great mistake if they did not re-elect him.

Mr. J. W. Barnes (hon. secretary) spoke of the admirable manner in which Dr. Rogers performed his duties.

The resolution having been carried unanimously,

Dr. Rogers, in reply, said that he would perform the duties of their President as long as his health would permit, and he returned them many thanks for the renewed honour they had conferred upon him. (Applause.)

On the motion of Mr. Benson Baker, seconded by Mr. Milward, the metropolitan vice-presidents elected were Dr. Dudfield, Dr. E. Jones, Dr. J. Dixon, and Dr. C. Welch; and for the provinces—Dr. Brett (Watford), Dr. Clarke (Leicester), Mr. Mathews (Horsham), and Dr. Sheen (Cardiff). The Council were elected, and the hon. treasurer, hon. secretaries, and auditors were appointed as before.

Dr. Rogers then proceeded to address the meeting, as usual at the annual meeting. He said that on the last occasion he told them that Dr. Brady, in conjunction with a distinguished member of the House of Lords, would introduce a Bill during the present session of Parliament upon Poor-law Medical relief. He also stated that Mr. W. H. Smith would move for a Royal Commission to inquire into the operation of the Poor-laws in London. Why Dr. Brady had not carried out his intention he knew not, but he presumed it was from ill-health. As regarded Mr. Smith, he made a gallant attempt to carry out his views, and some excellent speeches were delivered during the course of the debate; but he (Dr. Rogers) was sorry to say that the remarks of Mr. Smith were listened to by a very thin House—indeed, during the course of the evening it might have been counted out if any member had been vicious enough to do so. When they considered the great war that had convulsed Europe, the outcry that had been raised as to our unpreparedness for war, the great alterations which had been proposed in military arrangements and the Ballot Bill, a rational explanation, he thought, was afforded for the indifference with which the House viewed the social question of Poor-law Medical relief, and many other measures of the people. Perhaps no session had ever been more remarkable than the present with regard to matters of this kind. Immediately after the meeting last year he attended, by special invitation, the meeting of the British Medical Association at Newcastle, and the principal result which accrued was the formation of an influential committee, which subsequently went as a united deputation to Mr. Goschen, and laid before him propositions for a district scheme of Poor-law Medical reform. The meeting last November was probably one of the most satisfactory ever held, as on that occasion they were honoured by the presence of many Medical Officers of Health, who not only attended for the purpose of evincing sympathy, but of determining the feasibility of a more harmonious co-operation in securing a better knowledge of the features of preventible disease, and of facilitating disease registration. The report of that meeting produced a great effect. Shortly after the November meeting the report of the Royal Sanitary Commission was published, and they then learned that—influenced, doubtless, by the facts brought forward at their previous meeting, and notably at that in May, 1870—they had decided that Medical officers, from the nature of their duties, were the fittest persons to be entrusted with preventive duties. He must, however, express his regret that the report was so illogical, that whilst it recommended that rural officers should be employed, urban officers were to be kept in the same anomalous position as before. He could not understand why the metropolis with its 3,200,000 inhabitants should be left out in the cold. He was satisfied that the existing arrangements were most unsatisfactory. As a member of a Board of Works he had noted the dependence of the Medical officers on the district Medical officers for information, and he believed the happiest results would accrue from the confiding larger powers of prevention to Medical officers; indeed, he held that they should be *officiers de santé* of first instance. Another part of the report of the Commission recommended inspection, but it was silent as to whether it should be Medical or otherwise. He thought they had had enough of central itinerant inspection, made up mainly of briefless barristers, who had never had, and never would have, any sympathy with the difficulties of local officials. Within the last forty-eight hours he had received a very painful letter from a young man, who had been the subject of a Poor-law inquiry in one of the western unions. Some time ago he (Dr. Rogers) told him to be careful, above all things, to avoid an official inquiry, because the department would be sure to crush him. In this instance the inquiry was forced upon him from the intolerable conduct of the master of the workhouse, and he (Dr. Rogers) received information that a certain official not belonging to that district was to be sent down by the Poor-law Board. The instant he heard that he wrote to the young man, telling him to be upon his guard, for the man who was going to conduct the inquiry would prove to be no friend of his. And so it turned out. He was perfectly satisfied that the young man was made the subject of persecution, and all because he dared to stand up in antagonism to the local board of guardians. Some modification of the Poor-law arrangements with regard to matters such as that was most urgently needed. Inquiries of that kind ought to be conducted by men of their own Profession, who would have sympathy in their breasts, and not by barristers, who owed their favours exclusively to Court favouritism or intrigue. He would urge the appointment of county and (where necessary) city or borough health officials, debarred from private practice and irremovable, who should superintend all matters relating to the public health, and to whom the district Medical officers should stand in relation as deputy health officials, and that hereafter, when the scheme had been put into working order, all such high appointments should be given to district Medical officers exclusively, and that duties such as those performed by Dr. Letheby should be their peculiar appanage. He could not conceive why Medical men should be debarred from position. The Church has its bishops and archdeacons, its rectors and its prebendaries; and the lawyers had their positions; but Medical men had none whatever. They might display enormous capacity, but yet would only remain mere parochial or Medical officers of a district. This was not a right state of things, and he trusted they would show themselves to be sufficiently united to obtain an alteration in the law. One of the subjects touched upon by the Association had been that of public vaccination. Early in the year they found that Dr. Seaton was urging forward consolidation appointments, and they accordingly sought an interview with Mr. Simon They did not object to rational consolidation, but they decidedly demurred to the summary and wholesale dismissal of Medical officers simply to carry out the views of Poor-law officials. Could anything be more monstrous than the whole of the district Medical officers of such a parish as St. Pancras being summarily dismissed, and one man only being selected to fill the offices they had held. Another thing was that, if the scheme of consolidation was carried out, there would only be thirteen public vaccinators for the whole of the metropolis with its three and a half millions of inhabitants. During the interview he referred to Ireland, and pointed out that in that country the system of vaccination was complete, and there was not that miserable inefficiency which they witnessed here. Every dispensary was a station, and every district Medical officer a public vaccinator. When they went to Mr. Forster, however, he impugned the correctness of his (Dr. Rogers) statistics; but they had been supplied from official

sources, and common sense ought to have told him they were reliable. In the town of Birmingham they had suddenly cut down the number of public vaccinators from eight to one, and the result was, that there was a large diminution in the amount of vaccination. It took a considerable length of time for the public to find out the stations which the Privy Council in their wisdom had set up. The scheme had been carried out so far that Dr. Seaton had admitted that if it was extended it was possible they would all come to grief. It behoved them, therefore, to stand up and make a gallant fight, and if they did they might reasonably expect success. Passing on to another matter, he had to tell them that in the month of March their excellent friend, Mr. Corrance, put a notice on the paper of the Central Chamber of Agriculture that it was desirable to have a discussion on Medical relief, and he desired him (Dr. Rogers) to open it before the meeting. From a variety of causes its consideration was delayed until June, when he had the honour to address a large and influential gathering of noblemen and gentlemen, who had come from all parts of the kingdom. Although his remarks at first were received coldly—indeed, almost hostilely—yet he succeeded in obtaining a hearing. His facts were not only listened to, but they found their way to the understanding of his auditory; and not only did he get a vote of thanks for his address, but a resolution condemnatory of the present system was passed, and a copy of the resolution was ordered to be sent to the Poor-law Board, and the consideration of the subject recommended to the notice of every branch chamber in the Kingdom. From that he was convinced that the facts on which his case was based were irresistible, and only needed publicity to secure acceptance and adoption from the great bulk of the thinking portion of the community. During the last six months they had seen a further change of chiefs at the Poor-law Board. Mr. Goschen, to whom they were certainly much indebted, was gone to the Admiralty, and Mr. Peel he did not know where. In common with many others, he regretted the change that had been made. Mr. Goschen was a man of much capacity, and, being of business habits, had infused his spirit into the department over which he had rightly presided. Then, again, he was a man who thought for himself, so that the staff, though they might now and then have succeeded in misleading, did not control him. Again, he saw deputations alone; but since his transference the old *laissez aller* had returned, and most of those officials to whose obstructive incompetence the break-down of the department was mainly due were again to the fore. They present themselves before deputations and obtrude their opinions where they are not required. One of the most recent legislative changes in immediate prospective was the consolidation of the Medical Department of the Privy Council, the Local Government Office, and the Poor-law Board. That was certainly a step in the right direction, and he claimed that it had been largely pushed forward by their Association; nevertheless, it was to be regretted that the farce of a nominal board was to be preserved—probably that was due to the circumstance that Mr. Gladstone held that the consideration of Poor-law matters did not require any particular gifts of intelligence. Matters were different during the *régime* of Lord Palmerston, for his Lordship was in the habit of going through the department every day, and he knew exactly how business was being conducted. Fancy how matters stood at the present time, when seven and a half millions were spent in connexion with the administration of the Poor-law, which was considerably more than the entire revenues of some of the Continental kingdoms. Medical men had suffered from the want of statesmen at the Poor-law Board, and the sooner they had statesmen there the better it would be for them and the community at large. Gentlemen present might, Dr. Rogers proceeded to say, have seen in the Medical journals that the Select Committee on Scotch Poor Relief had recommended material alterations in the arrangements for giving Medical relief. Nothing could be more miserable than the Scotch system, and on several occasions he had drawn attention to it. The late Lord Advocate, Mr. Gordon, who was one of the Scotch Board of Supervisors, brought it prominently before the public, and pointed out the advantages to be derived from the system adopted in Ireland. Recently they had had a deputation—not a united, but a conglomerate deputation—to the Poor-law Board. It was got up in this way. They knew that Mr. Corrance's motion was coming on, and they felt it was desirable to strengthen his hands as much as possible, and accordingly they saw Mr. Stansfeld, and drew his attention to the importance of some reformation being made in respect to Medical relief in large places. Mr. Stansfeld, however, did not seem to understand what the deputation really wanted, and this was the unfortunate conclusion they came to. There was no doubt that in consequence of a reduction of Poor-law Medical officers a large amount of voluntary Medical aid was given at our Dispensaries and Hospitals. Besides, the Medical officers had been saddled with such conditions that it was impossible they could fulfil all the obligations that had been cast upon them. Whilst the Medical officers of Bethnal-green, Rotherhithe, and Southwark were trammelled with difficulties, those at the West-end had but little to do—indeed, their offices were more sinecures, and they received their salaries for almost nothing. The whole system was rotten to the core, and nothing but a searching investigation could show the large amount of work which was necessary to be done by voluntary Hospitals and other institutions, to say nothing of how the poor were deprived of the relief to which they were entitled. Dr. Rogers then observed that on previous occasions he had contrasted the Irish and English annual reports, but this year the opportunity was denied him, owing to the English report not being ready for his perusal. As regarded the Irish, he was happy to state that it still devoted a large portion of its space to Medical relief subjects. The English, doubtless, when they saw it, would, as heretofore, avoid the question altogether. The sickness of the poor in this country is totally and entirely disregarded, whilst nearly five-sixths of the Irish report is devoted to that purpose, and hence the success. Another matter to which he wished to call their attention was this. They knew that their excellent friend and honorary member, Mr. Corrance, who had been in Ireland, had put a notice on the paper of the House of Commons to the effect that he would move a resolution condemnatory of the existing system of Medical relief, and urge the adoption of a modification of the Irish system. The subject was to have been discussed in June, but it was adjourned to July 21, when his notice stood second on the list. There was a doubt whether Sir J. Lubbock's notice on technical education would not occupy the evening, but notwithstanding, Mr. Corrance went to work to get a house, and about 130 notices were issued, and with such success that at half-past nine a large number of members were present, but Sir John and his friends, Mr. Mundella and Dr. Lyon Playfair, had arranged to exhaust the evening, and had actually brought their wives and daughters to hear their speeches. Seeing there was no chance of successfully bringing the subject on, Mr. Corrance, at half-past eleven, resolved to abandon it and go away. It was his intention, however, early next session, in co-operation with Sir D. Corrigan and M'Cullagh Torrens, to make a statement in the House, and to introduce a Bill with regard to Medical relief in this country. In conclusion, Dr. Rogers said that their case was so good, and demanded so thoroughly and completely their consideration, that he hoped they would continue to be united as before; for he was satisfied that if they were only true to themselves they would gain all the objects they sought. (Applause.)

Mr. Lord said he had no intention of taking part in Medical politics, but he could not help stating that he disagreed with some of the remarks of the President. He thought he had pictured matters much too gloomily. Instead of condemning the authorities, much blame rested upon Medical men themselves. They were not true to each other, and hence their difficulties. He was pleased to see the re-election of Dr. Rogers, for a more fitting man to fill their Presidential chair did not exist.

Dr. Stallard wished to thank Dr. Rogers and the Council for the excellent advice they were prepared to give at all times.

Mr. J. W. Barnes said that the view of Dr. Seaton with regard to the desirability of having few stations, in order that a proper supply of lymph might be kept up, was erroneous. In St. Pancras, where they had arm-to-arm vaccination, a proper supply had always been obtained. If all the lymph was taken to the stations, great inconvenience would be felt, and numbers of children would go unvaccinated.

Mr. Benson Baker said that disastrous consequences might ensue if there was only one vaccinator in a district. If he were called in to attend a woman suffering from small-pox, he could not, in the anomalous state of the law, vaccinate the child at her breast; but he believed this state of things would soon be altered, for a clause had been introduced into the amended Vaccination Act, giving power to Medical men to vaccinate in houses where an epidemic raged.

Dr. Rogers thought the fear as to an insufficient supply of lymph was a mere craze on the part of the Privy Council.

Mr. Lord then moved a cordial vote of thanks to Dr. Rogers for presiding, and the meeting terminated.

In the evening a dinner was served at the hotel.

SMALL-POX RETURNS OF THE ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.

New Cases of Small-pox occurring in the Public Practice of the undermentioned Districts.

Districts.	No. of Cases week ending						
	June 17.	June 24.	July 1.	July 8.	July 15.	July 22.	July 22. Sent to Hospital.
WEST—							
Chelsea	15	8	12	10	12	?	—
St. George, Hanover-square	10	10	8	6	10	1	—
St. James, Westminster	5	3	2	3	11	6	4
NORTH—							
St. Pancras	68	69	42	26	66	27	?
Islington	35	26	23	22	35	17	?
Hackney	19	22	10	15	15	?	—
CENTRAL—							
City of London	12	10	9	6	9	7	—
Holborn	9	4	3	3	2	—	—
St. Luke's	16	16	10	5	7	8	8
EAST—							
Whitechapel	9	12	10	3	6	7	?
Bow and Bromley	?	16	12	?	?	?	—
SOUTH—							
St. Mary, Newington	24	46	14	33	18	13	15
St. Olave, Southwark	1	1	1	1	3	3	1
Lambeth	?	?	16	14	?	?	—
Clapham	5	7	5	4	2	3	3
Wandsworth	—	4	5	—	—	—	—
Streatham	?	4	?	3	?	5	2
Lewisham	?	3	?	?	1	?	—
Camberwell	32	?	21	?	?	?	—
Plumstead	—	2	—	?	2	?	—

REVIEWS.

St. Moritz as a Health Resort. By R. WHITFIELD HEWLETT, M.D. and M.S. Lond., L.R.C.P.L., etc., Physician to the English and American Hospital, Naples. London: J. and A. Churchill. 1871. Pp. 39.

The Baths of Bormio. By R. WHITFIELD HEWLETT, M.D., etc. London: J. and A. Churchill. 1871. Pp. 53.

BOTH these little works may be confidently commended to the notice of the Profession and the public, for both of whom they are intended. The second of the two, "The Baths of Bormio," is an epitome, and in some parts a literal translation, of a German *brochure*, "Die Thermen von Bormio," by Dr. Meyer-Ahrens, a well-known German Physician, and is perhaps in some parts written a little too much *ad populum* to please the Professional taste. But it contains much real and very useful information, and is supplied with a good and impartial, though short, introduction from the pen of Dr. Hewlett himself. He had had some personal knowledge of the baths, and all that he says of their qualities and advantages is well worthy of careful consideration, and must be held to add considerably to the weight and value of the opinions expressed in the body of the pamphlet. The baths of Bormio seem destined to take an important place among our health resorts, and this account of them will be found of real and great use to all who wish for a true and scientific account of their value.

The first of the two pamphlets—that on "St. Moritz as a Health Resort"—is really "by" Dr. Hewlett. His object in writing it was "to describe St. Moritz as it is—its merits, no less than its drawbacks—the relative value of its atmosphere and its waters, the class of cases for which it is and for which it is not suited, and to suggest the steps which ought to be taken by the communal authorities, no less than by the landlords, to improve a state of things that is in many respects most defective." The first chapter, on "The Engadine," appeared some months ago in our own pages; the remaining chapters are on "St. Moritz," on "The Treatment of Lung Consumption by Mountain Air," on "Indications for Residence and Treatment at St. Moritz," and on "Appropriate Halting-places *en route*" to that place. We have no heart to say much of the work, for since it appeared Dr. Hewlett's short and useful career has finished; his pen is for ever laid aside, and his ears are closed alike to praise and blame. But, while no one can read the pamphlet without feeling that it is the production of a highly educated and accomplished Physician and careful observer, its chief value consists, we think, in the sober and well-balanced opinion given on St. Moritz, and on the risks that may attend the treatment of lung consumption by the air of high altitudes, as well as the great benefit that may be gained by that treatment.

FOREIGN CORRESPONDENCE.

HOLLAND.

(*From our own Correspondent.*)

ROTTERDAM, July 24.

SMALL-POX IN HOLLAND.

THE following are the official monthly returns for May:—

Towns.	Population Jan. 1, 1871.	Deaths from all causes, with still-born, in 10,000 inhabitants.	Deaths from small-pox.	Deaths from scarlet fever.	Deaths from measles.	Deaths from angina diphtheritica.
Amsterdam	281805	35·1	348	1	5	2
Rotterdam	123097	45·2	212	—	—	—
The Hague	93083	27·2	72	—	1	—
Utrecht	60587	32·8	38	—	1	—

The small-pox mortality in April for Utrecht was 140, instead of 117.

COLONIAL CORRESPONDENCE.

VICTORIA, AUSTRALIA.

MELBOURNE, May 20.

THE Medical Board are moving the Government to take charge of the Amended Medical Bill, which now more than a year ago the Board drafted and issued to the Profession. In any case, whether the Government or a private member bring it in, it will very shortly be discussed in the Legislature, and if passed in anything like the shape in which it has been framed it will confer considerable advantages upon the Profession, for the present Medical Act is simply a mockery as to any provision against irregular practice and the excluding from the Register all unqualified and disqualified persons. The Amended Bill contemplates, moreover, an alteration in the constitution of the Board, which is now altogether nominee, but which it is proposed should be partly nominated by the Governor in Council, and partly elected by the entire body of the Profession. It gives ample power to deal with black sheep, both those who have been struck off the British Medical Register, and those who may have been guilty of unprofessional conduct here. It gives power also to the Board to decide as to what qualifications shall be eligible for registration. At present the Board has virtually no power in this particular, and in the few instances in which it has demurred to register a diploma, the applicant has compelled it through the agency of a supreme court mandamus. The consequence is that the Register includes all sorts of diplomas from every quarter of the globe—the homœopaths figuring very prominently. Indeed, one of the most "fashionable" Doctors in Melbourne is a man whose only qualification is an M.D.-ship of the Homœopathic College of Pennsylvania. It is said that he is doing almost the most lucrative practice in Collins-street—the Medical quarter of Melbourne. You may infer from this that homœopathy is rather in the ascendant here. Of the four daily papers in Melbourne, two of them openly advocate homœopathy, one of them being edited by a homœopathic practitioner, whose qualification has proved too "irregular" even for the Government to recommend for registration.

Concurrently with the Amended Medical Bill, a Pharmacy Bill is to be introduced into Parliament. Hitherto, the druggists have been under no legislative control whatever. But the Pharmaceutical Society, established about sixteen

years ago, has lately been revived, and a Bill, based upon the English Act, has been prepared. It is expected there will be a good deal of opposition to this, as nearly all the storekeepers of the country sell drugs.

Professor Halford has been presented with a money testimonial, subscribed by the Profession and the public, in recognition of his claims as the discoverer of an efficient means of treating snake-bite, by the injection of liquor ammoniæ into the veins. He has, as a matter of course, been subjected to a great deal of abuse from the baser sort in the Profession, and he has been continually charged with having appropriated to himself merits that did not belong to him. He never claimed, however, either to have discovered ammonia as a remedy for snake-bite, or that injection into the veins was a means of introducing some remedial agents into the system. But he certainly claims, and with good reason, to have been the first to show that a large quantity of liquor ammoniæ may be thrown into the circulation with perfect safety, and the numerous cases now on record of recovery from snake-poisoning after the ammonia injections are, at any rate, most favourable demonstrations of its antidotal qualities. It is easy, of course, to say that the persons bitten would have recovered if no ammonia had been injected at all; but if the narrators of the cases are to be believed, the collapse in every instance has been so extreme as to preclude the possibility of recovery if some powerful restorative had not been employed.

Dr. L. J. Martin, who recently returned from a visit to the old country, read a paper, at the last meeting of the Medical Society, "On the Progress of Obstetric Science," in which he reviewed the practice he had had the opportunity of seeing while in England, Ireland, and Scotland. He brought with him quite a magazine of new instruments, and the interest shown in the examination of these was very great. It is felt that much good must come from these periodical visits to the old country; for, at such a distance, we are a little in danger of growing rusty, unless we are continually reminded of the progress being made at home. Dr. Martin is generally and deservedly regarded as one of our rising men. He is a thoroughly sound Practitioner, and his large experience in obstetric practice gives considerable weight to any opinion expressed by him. Since his return he has operated once in ovariotomy with entire success. The case was a most unfavourable one, being a very large multilocular cyst, and most difficult to dislodge. Dr. Tracy also performed ovariotomy the same week at the Lying-in Hospital, this being his thirteenth case. It also was a complicated case, from the number and extent of adhesions, but it has done well. Dr. Tracy employed the actual cautery with good effect in controlling the hæmorrhage caused by the tearing off of the adhesions.

The Alfred Hospital, which was lately opened, has been recommended by the Charitable Institutions Commission as a convalescent institution. You are probably aware that in this colony the charitable institutions are subsidised by the State to the extent of three-fourths of their incomes, and that therefore the Government has something very much more than a nominal right to prescribe the conditions under which they shall exist. In this case, it is admitted that the Charitable Institutions Commission, who have for many months been engaged in taking evidence upon the state of the Victoria charities, have every reason for their recommendation as to the Alfred Hospital. In defiance of all remonstrance, the founders —or, more properly, the suggestors—insisted upon its being built in a locality quite remote from the districts in which both ordinary Hospital patients are to be found and casualties are likely to occur. It is in what we are accustomed to regard as the aristocratic suburb. It is an elegant building, and quite an ornament to the neighbourhood, and, so far, it fulfils the intentions of its projectors; but it is not wanted where it is, and is never likely to be wanted, for ordinary Hospital purposes; but as a pretty and pleasant retreat for the convalescent it may do well enough, albeit, lying low and flat, the drainage will always be a difficulty.

At the Melbourne Hospital they are building an operating-room; but, instead of building it so as to afford ready access to the wards, they are putting it up altogether apart and detached from the main building. The consequence will be that patients, after being operated upon, will have first to be carried into the open air in order to reach any of the wards. The pig-headedness of the Committee of this charity, however, is coming to be proverbial.

The Government have decided not to appoint a commission to examine into the causes and means of treatment of diphtheria, as has been urged upon them by some restless members of the Profession, anxious to air their own particular theories on this subject. Diphtheria, it is true, appears to be becoming endemic among us, but I do not think that even those who have had most experience of it in this part of the world can add anything to what is already known of its pathology and accepted as rational in its treatment. The Central Board of Health, presided over by our most indefatigable and conscientious Government Medical officer, Dr. McCrea, was referred to by Sir James McCulloch, the Chief Secretary, and Dr. McCrea reported, and most properly, that there was no need for a commission to investigate diphtheria.

GENERAL CORRESPONDENCE.

DR. BAKEWELL AND THE COLONIAL OFFICE.

LETTER FROM DR. R. H. BAKEWELL.

[To the Editor of the Medical Times and Gazette.]

SIR,—In your remarks on the alleged cure of leprosy you have unintentionally done me an injustice, by stating that "I am grieved that my meed of praise and reward have not been greater." I never expected any praise, as the method was not mine, but I was determined it should not be extinguished by official delays and Circumlocution Office red tape. What I am really grieved at is that I cannot get the Colonial Office to pay my little bill! For two months' work in Venezuela, during which time I was forcibly detained in a besieged town, and living under martial law, and for the work of all the reports published in the Parliamentary paper, the Secretary of State has awarded me the magnificent sum of £50. But I can't get it. The Colonial Office has no money, and is obliged to go begging to the colonies to pay this £50. I suppose it will have to be collected, like the money for Dr. Gavin Milroy, by contributions of seventieths from all the tropical colonies.

It is not, therefore, because my reward is no greater, but because I can't get any reward at all, that I am "grieved"—deeply grieved. My little account has been "standing over" now for three years. I am, &c.,

Northgate, Leicester, July 15. R. H. BAKEWELL.

A RELIC OF BARBARISM.

LETTER FROM MR. HUGH WEIGHTMAN.

[To the Editor of the Medical Times and Gazette.]

SIR,—As a barrister of the Oxford Circuit, present on the occasion of the trial at Oxford of Rachel Busby on the 13th inst. for the murder of her child, you will, I am sure, permit me to impugn the correctness of the report upon which you have based your observations contained in last week's number of your periodical. The case, as reported, I might characterise as simply impossible. But were it possible for a judge so far to forget the law he has to administer, no censure could be too severe. Mr. Justice Lush, however, is not the judge thus to forget himself. But your animadversion is directed rather against the law itself, and here you have been led into error by the reporter.

First, as to the facts. The jury of matrons did not arrive at a verdict without calling to their aid a Medical man. So far from it, they stated their inability to determine the precise point at issue—viz., whether the convicted woman was quick with child—without Medical assistance, which was at once supplied. Unaided, they could only satisfy themselves that the woman was with child, but the point to be decided was whether she was quick.

Secondly, as to the law. In case the woman convicted and sentenced to death pleads her pregnancy in stay of execution, "the judge must direct a jury of twelve matrons or discreet women to inquire the fact; who may, if they please, be assisted by the opinion of a Medical man, who must be examined as a witness in open court (Reg. *v.* Wycherley, 8 Car and Payne, 262), and if they bring in their verdict *quick with child* (for barely *with child*, unless it be alive in the womb, is not sufficient), execution shall be stayed," etc. (Black. Com., c. 31 of Reprieve and Pardon). In Rachel Busby's case the judge was careful to inform the jury of matrons that a Medical man would assist them in their investigation if they had any doubt upon the subject.

An independent Medical man is usually appointed in such cases in preference to the Surgeon of the gaol, as suggested in your remarks; and such was the case here.

To a legal mind twelve matrons assisted by a Medical man

seem the very fittest tribunal on the point in question. Medical men acting alone have sometimes, even in high quarters, made mistakes, and surely no Medical man could desire that the determination of so grave a question as the life or death of an unborn child should depend upon his single judgment! Would, then, a jury of men be a preferable council to a jury of matrons or discreet women, most of them having had personal practical experience of the various stages of pregnancy?

It is very desirable that the two Professions of law and Medicine should work harmoniously together in all that relates to Medical Jurisprudence, and I am sure, therefore, you will not hesitate to give the same publicity to this explanation as, in the discharge of your duty, you have given to the censure contained under the head of "A Relic of Barbarism."

I am, &c., HUGH WEIGHTMAN.

Temple, July 24, 1871. Barrister-at-Law.

DR. SANSOM ON CHLORALUM.

LETTER FROM MR. JOHN GAMGEE.

[To the Editor of the Medical Times and Gazette.]

SIR,—Dr. Sansom has himself furnished evidence in my favour. Had it been possible for him to show that, as a commercial article and as a pharmaceutical preparation, as a remedial agent and contagion destroyer, chloride of aluminium had ever been introduced in any country, he would have done so in reply to my letter. I must ask you to reproduce the subjoined paragraph, which only occupies twenty-six lines and two words in the twenty-fourth chapter of Dr. Sansom's work devoted to the antiseptic method in Surgical practice.

In his letter of the 26th ult., Dr. Sansom quotes authorities who had indicated the antiseptic or preservative powers of chloride of aluminium as applied experimentally to dead animal matter; and in my earliest paper on the subject I stated that the fact of the chloride of aluminium having the power of arresting decomposition might not be altogether unknown, and I spoke of its trial by Manchester cloth-dressers.(a) No one, however, had taken the trouble to study it, and explain how it differed from all other compounds known, and not a single instance is on record in which the salt has ever been employed, prior to my suggestion, in the treatment of sickness or injury.

In his chapter on the antiseptic method in Surgical practice, Dr. Sansom says—"The error, however, must not be committed of regarding it as a novel antiseptic application." I beg to state that if there be any merit in the introduction of new agents in therapeutics, Dr. Sansom wronged me and misled his readers. I have yet to learn that anyone before me ever foresaw the many applications which in twelve months have led to a great demand for chloralum, a demand which in all probability will shortly exceed that of all other antiseptics and disinfectants in the market.

When Mr. Lund's statement on the irritating nature of chloralum appeared in the *British Medical Journal*, I wrote to him, and in a letter I had from him on November 19, the substance of which was communicated to the same journal, the following words occur:—"I am glad to say that my general impression as to the advantages to be derived in Surgical practice from the use of the chloride of aluminium is very favourable. . . . In the fetor of open cancer it is first-rate. It has itself no smell, and it does more completely and readily destroy the wretched stench which cancerous patients have to undergo, and which, I believe, helps to damage the health by loss of appetite and personal comfort." I then learned that the irritation produced in the case reported had been due to an impure solution of chloride of aluminium confined closely under a guttapercha covering. Surgeons are using chloralum very extensively, and Mr. Spencer Wells assured me recently that he scarcely passes a day without using or prescribing it.

I shall not trespass too long on your space, and whilst gladly believing that Dr. Sansom erred from want of evidence (which I think he would have found abundantly luxuriant had he searched for it where it could be found), I expect in him henceforth what he professes in his preface—the embodiment, not of a simple advocate of carbolic acid, but of an inquirer in the broadest acceptation of the term. I assert that, had Dr. Sansom chosen to give a complete statement of what has been learned respecting the action of the chloride of aluminium, he might have reproduced several records of great interest from the Medical journals since last August, and I could have supplied him with facts which he could ill have crammed into twenty-six pages of his work instead of twenty-six lines.

I am, &c., JOHN GAMGEE.

London, July 5.

(a) Vide *Lancet*, August 29, 1870.

EXTRACT FROM DR. SANSOM'S "THE ANTISEPTIC SYSTEM," PAGE 258.

"*Chloride of Aluminium.*—This agent has been more recently advocated by Mr. John Gamgee, and has been introduced into commerce under the name of chloralum. The error, however, must not be committed of regarding it as a novel antiseptic application. It has been long known, and many experiments have been made with it both in this country and in France. A reference to the table recorded by Dr. Angus Smith will show that this agent is far from occupying the highest place under those circumstance of albuminous material in a moist state which obtain in wounds. Mr. Gamgee has, however, shown that chloride of aluminium is very soluble and manageable, and it has the advantage of being free from all poisonous property. Its power is very manifest in preventing the ill odour of putrescent material; moreover, its expense is small. It is a powerful astringent. This quality, though valuable in cases wherein hæmorrhage is to be dreaded, is not an unmixed good, for an agent which so strongly contracts the capillaries is scarcely *primâ facie* likely to promote rapid union of lacerated parts. Mr. Lund, of Manchester, found that a solution of chloride of aluminium of a specific gravity of 1020 was irritating to the sound skin, unless the disengaged vapour had free exit. In a case of bruise of the arm he used it according to antiseptic principles, but extensive sloughing took place, and it had to be discontinued. The position of this salt as a Surgical antiseptic must be considered as yet *sub judice*."

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, JUNE 27.

MR. CURLING, F.R.C.S., President, in the Chair.

THE Report from the Committee appointed to examine Mr. Hutchinson's cases of Vaccino-Syphilis was read.

A paper by Dr. WILLIAM OGLE was read, "On Dextral Pre-eminence." 1. After a very brief account of the chief explanations which have been given of right-handedness, the author advances numerous arguments against the most generally accepted doctrine that it is based on conventional agreement, enforced by educational influence, and has no natural foundation in our physical conformation. Of these arguments the following are the chief:—The preferential use of one side is not limited to the arm, but extends to the leg, which is not subjected to education as the arm. The tendency to use one side preferentially manifests itself before education begins, and often persists in spite of the efforts made to overcome it. Left-handedness resembles many physical malformations in being hereditary, in running in families, and in attaching itself rather to the male sex than to the female. Statistics are given of its relative frequency in the two sexes. Men are not the only animals with a tendency to use one side preferentially. The author gives an account of his observations in this matter on monkeys and on parrots. 2. Having shown that there must be some one or other structural foundation for right-handedness, the author next considers what this may be. He shows that in right-handed persons the left hemisphere is proved to be pre-eminent over the right by its lodging the faculties concerned in speech, etc.; and that in left-handed persons the right hemisphere has a similar superiority. This latter statement, the probability of which was suggested by the author several years ago (St. George's Hospital Reports, vol. ii., 1867), is supported by three cases of aphasia in left-handed persons, accompanied by left hemiplegia, which the author has himself seen, and a fourth recorded by Dr. Jackson. So that right- and left-handedness would seem doubtless to depend on a natural predominance of the left and of the right hemispheres respectively. 3. Inquiry is then made whether any structural differences between the two hemispheres can be detected; and it is shown that while the left is the more complex in right-handed persons, the contrary is the case in left-handed individuals. This latter statement is based on the examination of the brain in two left-handed subjects. The specimens were

exhibited, and also tracings of them by Dr. Broadbent. 4. Finally, the question is considered—What is the cause of the greater development, as a rule, of the left hemisphere? It is argued that it depends probably on the left hemisphere receiving a freer supply of blood than the right one. The results of the author's observations as to the relative sizes of the arteries on the two sides of the neck are given; from which it appears that the left arteries are, as a rule, slightly larger than the right ones. It is also shown that, independently of the size of the vessels, the stream of blood is less hindered on the left side than on the right. Lastly, it is shown that this explanation is consistent with, and corroborated by, the peculiarities of the cerebral blood-supply in those other animals which, like man, manifest a tendency to use one side preferentially to the other—such as parrots.

Mr. Savory, in expressing his admiration of the very able paper presented to the Society by Dr. Ogle, said that he must also express surprise that the question of dextral pre-eminence had been treated with reference to the extremities only. We found a corresponding departure from symmetry in every part of the body. Every microscopist knew that he had a favourite eye; and it was always more easy to wink with one eyelid than with the other. The septum nasi was not in the median line; and the power of smell of the larger nostril was superior to that of the other. Mastication, without any reference to decayed or painful teeth, was performed usually on only one side of the mouth. Every nursing woman suckled her child more at one breast than at the other; and almost everyone slept constantly upon the same side. With regard to the complexity of the cerebral structure, he should have liked to hear something about the ganglia at the base of the brain, the so-called sensory ganglia, as well as about the hemispheres; although he admitted the great difficulty of such an investigation. In respect of the blood-supply, he thought that the general teaching of physiology was opposed to considering this as a cause of growth, and led us to regard it rather as an effect of nutrition. The well-known transplantation of a cock's spur, by Hunter, as well as the periodical activity of certain organs, seemed to point in this direction.

Dr. Charlton Bastian, like Mr. Savory, felt doubtful of the correctness of Dr. Ogle's suggestion that greater blood-supply might be a cause of increased growth. With regard to the general question, he thought the view taken about the reason of dextral pre-eminence would depend upon whether we regarded man as the result of a single creative act, or of a complex process of evolution. He had lately made a post-mortem examination of the head of a man who had in his lifetime been remarkable for great intellectual power, and who had been from childhood blind of the right eye. In that case there was a very remarkable excess of size of the right over the left hemisphere, the former measuring longitudinally, over the vertex, five-eighths of an inch more than the latter. Four or five years ago he had made and published a series of observations on the specific gravity of the brain-substance, and had satisfied himself that the grey matter of the left hemisphere was specifically heavier than that of the right. For this he was at the time unable to suggest any explanation; but now, coupling it with the fact that the grey matter of the posterior lobes is specifically heavier than that of the anterior lobes, on account of the greater admixture of white communicating tissue in the former, he thought that the greater weight of the grey matter of the left hemisphere might also possibly be due to the larger proportion of communicating fibres required by its greater complexity of structure and greater functional activity.

Mr. Brudenell Carter suggested that examinations of the brains of adults who had undergone amputation of an upper extremity in early life might throw important light upon the question.

The President, on account of the lateness of the hour, and of the number of papers still to be read, then stopped the discussion, and called upon Dr. Ogle to reply.

Dr. Ogle, after thanking the Society for the reception accorded to his paper, said that he had not been unmindful of the desirableness of investigating the condition of the sensory ganglia, but that the difficulties in the way of doing so had as yet been too considerable to be overcome. As regarded the question of blood-supply, he had plainly stated in his paper that it might be either a cause or a consequence of increased growth, and he thought the balance of evidence was in favour of the former supposition. In very young rabbits, after section of the vaso-motor nerve in the neck, he had observed hypertrophy of the ear on the side operated upon, attended, in some instances, by increased growth of hair. He acknowledged the importance of Dr. Bastian's observations about the different specific gravities of different parts of the brain, and thought that these observations told in favour of his argument.

A paper was read by Mr. W. Spencer Watson, "On the Indications for Operative Treatment, and on a New Operation, 'Keratectomy,' after Severe Injuries of the Eyeball;" with cases. In the case of penetrating wounds, the occurrence of glaucomatous symptoms is shown to be the most urgent indication for operative treatment—viz., either linear extraction, or iridectomy. At a later stage, after the subsidence of the acute symptoms, iridectomy may be required, or the removal of the cataract indicated, and these operations are most likely to be successful when all signs of active congestion have disappeared. Cases in illustration are given. The prospect of the complication of sympathetic ophthalmia is always possible when the stage of congestion, with pain and photophobia, is much prolonged, and whenever a foreign body is left in the injured eye. Under these circumstances, the removal of the injured eye is sometimes necessary; but if constitutional treatment can be properly carried out, the removal of the injured eye may be postponed or altogether averted. A case in illustration is here given. In traumatic and idiopathic cases of suppurative ophthalmitis the operation of keratectomy is proposed, and in one case has been performed successfully by the author. Its object is to establish a fistulous opening in the cornea, through which the morbid products of the inflammation may escape freely, until such a time has elapsed that the tissues may have recovered. It is suggested that in some cases of threatened suppurative ophthalmitis, keratectomy might prevent the anticipated mischief.

Dr. Frederick Barham Nunneley read a paper on "The Modifications produced on the Temperature of the Body by the Local Application of Cold and Heat." Experiments, detailed in the paper, have yielded the following results:—1. That immersion of one extremity in iced water did not cause any alteration in the temperature of the other extremities or the body generally, unless the subject of experiment was in a state of more or less nervous exhaustion, or there was decided coolness of the surrounding air, when a fall of temperature occurred. 2. That a slight rise of temperature in the body generally, and a more considerable one in the extremities, followed immersion of a hand or foot in water hotter than the blood, amounting under the tongue to about 1° Fahr., and in the extremities from 1° to 3° Fahr., above the normal standard. 3. And that if at this time any one of the extremities was put into cold water, a fall of temperature below the normal, slightly marked in the body generally, and much more so in the extremities, very shortly commenced. If the hand or foot was now withdrawn from the water, reaction became established, and the natural temperature was slowly attained. Such results would appear to show that, for cold to act locally, a disturbance of the conditions which maintain the normal balance of temperature is necessary first of all—such as is caused by undue heat; and suggest the idea that these variations of temperature may be regarded, in many respects, as parallel to those attending a slight rigor, and that they are not always the result of reflex agency.

A paper by Mr. Francis Mason was read, "On a Simple Method of Removing Silver Wire when employed in Cases of Ununited Fracture." The object of the paper is to describe a plan of fastening the broken fragments with a needle and a loop of wire so arranged that in withdrawing the needle the loop of wire is released, and thus may be removed without pain to the patient and without injuring the bone or soft parts.

At the conclusion of the meeting, the President drew the attention of the Fellows to the change in the times of assembling which had been adopted at the last annual meeting, and which would commence with the next session—namely, that the first meeting of the Society would be on the second Tuesday in October instead of in November. He further mentioned that, to allow of the alterations connected with the Society's meeting-room being previously carried out, the library would be closed during the months of August and September.

Sick and Wounded in the German Armies.—The *Volkstaat* observes "that there is an unwillingness in influential circles to allow the full extent of the German losses in the late war to transpire. The Central Bureau of Information in Berlin has just published a report, showing that the institution has, within the space of twelve months, authenticated 663,000 sick and wounded cases, and that of these only 78,000 belonged to the French, the remaining 555,000 to the German army. These frightful figures, which besides make no claim to completeness, are, according to this, far below the truth."

LEGAL INTELLIGENCE.

RIGHTS OF A CHILD "EN VENTRE SA MÈRE."

A somewhat curious case, under what is known as Lord Campbell's Act, has just been decided by the Court of Admiralty. The ship *George and Richard* was damaged in a collision with a ship called the *Eleutheria*, and Philip Noyes, one of the crew of the former ship, was killed. His widow proceeded against the *Eleutheria* under Lord Campbell's Act, and claimed damages in respect of a child with which she was then pregnant. It was held by Sir R. Phillimore that the child was entitled to recover for the loss sustained of its father, although the damages could not be actually assessed till the child was born. The maxim, not only of the English, but also of the Roman law, that a child *en ventre sa mère* is to be considered as actually born if any question arises for its benefit, has been amply confirmed of late years by Lord Westbury as Lord Chancellor, in the case of Blasson *v.* Blasson (11 L. J. Rep., N. S., p. 353), but this fiction of law, which treats an unborn child as actually born, applies only for the purpose of enabling such child to take a benefit to which it would have been entitled if actually born; but whether compensation for the loss of a father can be looked upon as a benefit is a nice question that a court of appeal may yet have to decide. In the case decided by Sir R. Phillimore the action of the Court was suspended till the birth occurred, as, if the child were still-born, the claim would, of course, prove abortive.

OBITUARY.

RICHARD WHITFIELD HEWLETT, M.D. and M.S. Lond., etc.

We deeply regret having to announce the death of this accomplished and promising Physician at Naples, on the 21st inst., from typhoid fever. The son of the highly valued and well-known Surgeon to Harrow School, and nephew to the not less well-known and trusted Apothecary to St. Thomas's Hospital, Richard Whitfield Hewlett naturally chose to enter the Medical Profession, and as naturally brought to its study and practice habits of the most untiring and persevering industry, and a love of hard, orderly, genuine work, while he impressed everyone by his thoroughness, straightforwardness, and high-principled integrity of character. Educated at Harrow School, at King's College, London, and at Vienna, he gained prizes and honours innumerable. At King's College Hospital he filled most, if not all, of the junior Hospital appointments, such as those of Junior and Senior House-Physician, and the like; and in taking the degrees of Bachelor of Medicine, Doctor of Medicine, and Master of Surgery in the University of London, he appeared amongst the most distinguished of the "honour-men." When he had no more victories to win in this way, he settled down at Harrow, joining his father in practice in that place; and to his perseverance and energy Harrow was indebted chiefly for the establishment of a most useful and successful Cottage Hospital. After a few years' residence at Harrow, however, he was tempted to give up general practice, and to woo fortune as resident Physician at Naples, where he settled two or three years ago. He held the appointment of Physician to the English and American Hospital there, and seemed in a fair way to obtain the success that his talents, acquirements, and industry so fully entitled him to hope for, when, alas! like so many of our promising young brethren, he fell a victim to one of the diseases he had devoted his life to combat. Exhausted by ministering to the wife and some of the children of a Medical friend through their fatal illness, he somehow caught typhoid fever, and, after having struggled through the worst period of the disease, and apparently entered safely that of convalescence, he somewhat suddenly died, on the 21st of this month. He was only about 32 or 33 years of age, and has left a widow and infant daughter to mourn, with many others, the loss of so sterling a character, and the sudden and early closing of so distinguished a career.

HERBERT ERASMUS MILES, M.D.,

Surgeon of the Royal Artillery, died on June 16, at Colaba, Bombay, aged 38. He entered the service in December, 1854, and became Surgeon in November, 1867. He served on the Medical staff during the Crimean War in 1855—medal, with clasp, for Sebastopol, and Turkish medal; served with the 83rd Regiment in the Indian campaign of 1857-58; was present at the attack on Nimbkeira; was severely wounded during the defence of the fortified Square of Neemuch, in November, 1857, although suffering from a gunshot wound. He served in Medical charge of the detachment 83rd Regiment, and wing of the 12th Native Infantry; was present during the field operations against Arvah, and subsequent destruction of the adjacent strongholds; served in Medical charge of the 83rd Regiment prior to, and was present during, the siege operations against Kotah, and its capture by assault—medal with clasp. He also served in Medical charge of troops in the Persian Gulf during the war in 1856—medal with clasp.

THOMAS C. BRADY, M.R.C.S.,

Late Surgeon 8th Regiment, died on July 12, at Geneva, where he had been residing for the benefit of his health. He entered the service in May, 1852; became Surgeon, September, 1860; was placed on temporary half-pay in 1868. He served on the Medical staff and in the 57th Regiment from May, 1854, to December, 1865, including the battles of Balaklava and Inkerman, siege and fall of Sebastopol, attack of the Redan on June 18 (honourably mentioned in despatches), and expedition of Kinburn—medal with clasps. Knight of the Legion of Honour, and Turkish medal.

MEDICAL NEWS.

Royal College of Physicians of London.—At an extraordinary meeting of the College on Monday, the 24th inst., the following gentleman was duly admitted a Member of the College:—

Yeo, J. Burney, M.B. Lond., 60, St. James's-street, S.W.;

and the following gentlemen, having duly conformed to the by-laws and regulations, and passed the required examinations, were granted Licences to practise Physic, including therein the practice of Medicine, Surgery, and Midwifery:—

Bayley, Robert Luther, M.D., 86, High-street, Stourbridge.
Cottle, Ernest Wyndham, B.A. Oxon., M.R.C.S., Southampton.
Curling, William, 86, Guildford-street, Russell-square, W.C.
Deeping, George Davidson, Castle-terrace, Newark.
Ellis, William Hodgson, M.B. Toronto, Toronto.
Ewart, John Henry, M.R.C.S., Gipsy-hill, S.E.
Goddard, Eugene, M.R.C.S., 27, Pentonville-road, N.
Lewis, Lewis, M.R.C.S., 3, Argyll-square, W.C.
Lycett, John Allan, M.R.C.S., Middlesex Hospital, W.
Moore, Edward William, M.R.C.S., Grove-park, Chiswick, W.
Noakes, Samuel Silverthorne, M.R.C.S., Charing-cross Hospital, W.C.
Parrott, Edward John, M.R.C.S., Buckland, near Tring.
Power, Thomas, 72, Stepney-green, E.
Ransom, Frederick Parlett Fisher, King's College Hospital, W.C.
Strafford, Thomas, M.R.C.S., Ripley, Derby.
Waller, Walter Augustus Ewen, M.R.C.S., Guy's Hospital, S.E.
Waterhouse, Frederick, M.R.C.S., Pontypridd.
Yarrow, George Eugene, M.D. Heidel., M.R.C.S., 87, Old-street, E.C.

The following candidates, having passed in Medicine and Midwifery, will receive the College Licence on their obtaining Qualifications in Surgery recognised by the College:—

Coltart, William Wilson, St. George's Hospital, S.W.
Duke, Douglas William, 3, Belvedere-place, Upper Norwood, S.E.

Apothecaries' Hall.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, July 20, 1871:—

Aikin, Charles Edmund, 7, Clifton-place, W.
Baldock, Alfred, Charterhouse-square.
Biggs, Moses George, Welford, Northamptonshire.
Bryan, Francis Chas., Delamere-crescent.
Fosbroke, George Haynes, Bidford, Redditch.
Furner, Willoughby, King's-road, Brighton.
Harris, Michael, Hackney.
Tombs, George Augustus, Cirencester.

As an Assistant in Compounding and Dispensing Medicines:—

Bradley, John, Bingley, Yorkshire.

The following gentlemen also on the same day passed their first Professional examination:—

Basson, George, University College.
Brodribb, Charles Aikin, St. Mary's Hospital.
Brodribb, Francis Benjamin, St. Bartholomew's Hospital.
Brumwell, James Parker, Guy's Hospital.
Carey, Richard John, University College.
Davis, George Augustus, University College.
Lawton, Herbert Alfred, St. Thomas's Hospital.
Morgan, William Lewis, London Hospital.
Moxon, John, King's College.
Shapley, Harry Tom, London Hospital.
Webber, William Littleton, St. Bartholomew's Hospital.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—ARTS EXAMINATIONS.—At the last preliminary examination for the diplomas of Fellowship and Membership of the Royal College of Surgeons, which was conducted by the College of Preceptors, when 313 candidates presented themselves—viz., 82 for the first-named distinction and 231 for the latter—for the Membership 98 passed, including 7 who failed to reach sufficient marks for the Fellowship, and 133 were rejected. Of the 82 for the Fellowship, 48 passed, and 9 for Membership, 15 to be re-examined, and 10 failed. Thus, out of the total number of candidates—viz., 313—there were 100 who passed for Membership and 55 for the Fellowship of the College; there are 15 who will have to be re-examined in some subjects, having previously passed examinations for Membership; and 143 were altogether rejected. The following gentlemen are reported to have passed for the Fellowship, viz.:—

Alsop, T. O. F.	Fisher, S. H.	Pendleton, H. N.
Baker, H. M.	Giles, B. F.	Phelps, P.
Boase, W. F. F.	Graham, J. T.	Phelps, W.
Boswell, A.	Green, H.	Pickering, C. F.
Boyd, J. S. N.	Guppy, H. B.	Poynder, G. F.
Briggs, W. H.	Haley, W. C.	Scully, J.
Bubb, B.	Hovell, T. M.	Smith, T.
Bull, W. H.	Johns, W. S.	Stericker, W.
Cant, W. E.	Kellie, G. T.	Stephenson, W. A.
Chambers, E.	Kempe, J. A.	Stewart, F. G.
Collenette, F. de B.	Kirby, S. J. J.	Stocker, C. J. W.
Collyns, R. T. P.	Leftwick, R. W.	Tate, A. L.
Currie, C. A.	Mackenzie, L.	White, W. H.
Davies, T.	Musgrave, R. P.	Wilkins, R. B.
De Gruyther, E. J.	Newby, C. H.	Woodcock, R. F.
Evans, T. D. F.	Norman, A. S.	Young, A. S. W.

To the above list are to be added the following gentlemen who entered for the Membership examination, and reached the standard required for the Fellowship, viz.:—

Allen, J. W.	Ellam, C. J.	Vernon, M. H. H.
Blackley, W. P.	Fellowes, H. T. A. B.	Walker, W. H.
Cotterill, J. M.		

The following passed for Membership, viz.:—

Allinson, H. C.	Greensill, J.	Norman, W.
Angelo, H. A.	Guppy, W. G.	Palmer, F. C.
Angove, W. T.	Hall, C. R.	Parker, A. F.
Archer, R. K.	Harding, R.	Pettigrew, A. J. W.
Astley, C. J. D.	Harvey, F. G.	Rawes, G. B.
Barnes, J. J. F.	Hay, W. A.	Reid, R. C.
Bately, R. G.	Hector, S. O.	Rowbotham, A. J.
Beddoes, C. C.	Heubeck, F. E.	Russell, A. P.
Bickers, J. U.	Hodgson, W.	Ryley, J.
Birch, De B.	Holwell, E. B.	Scallon, E. O.
Bond, J. W.	Hornsby, G. H.	Sherwell, L. E. H.
Boys, A. H.	Innes, H. J. D.	Sincock, J. B.
Cane, H.	Jackson, G. H.	Smart, A.
Capon, H. J.	James, H. W.	Smyth, F.S.
Carcenae, E.	James, W. C.	Speed, H. A.
Carroll, J.	Johnson, T.	Stamp, W. D.
Carter, F.	Latham, F. J.	Tailer, G. A.
Clippingdale, S. D.	Latham, G.	Taylor, D. P. H.
Cock, W.	Lawton, J. W.	Thompson, A. H.
Cree, P.	Leslie, G. H.	Thompson, H. Y.
Cross, H. E. F.	McCarthy, J. M.	Tidy, H.
Da Costa, E. R.	Maggs, W. A.	Todd, H.
Danberry, C. A.	Mark, H. R.	Toll, J. T.
Davey, W. T.	Marsh, O. E. B.	Tonks, J.
Davies, J.	Marsh, W. G. H. B.	Tuke, G. M.
Diggle, C. F.	Maylard, A. E.	Underhill, G.
Douglas, A. L.	Miller, H. E. F. G.	Walcott, R. C. S.
Edmunds, R.	Miskelly, W. J.	Walker, G. A.
Evans, W. M.	Mitchell, W. F.	Whitby, E. V.
Ewen, H. W.	Mogg, J. W. O.	Whitley, F. G. H.
Fisher, F. B.	Morgan, E. S.	Williams, A. G.
Friend, H. E.	Moses, J. G.	Williams, E. L.
Frobisher, W. M.	Nicholls, W. C.	Wilson, A. H.
Grayling, J. F.		

The next examination in Arts will take place in December.

The following gentlemen, having undergone the necessary examinations for the diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 25th inst., viz.:—

Barrow, Frank Edward, Woolwich-common, of Guy's Hospital.
Brabant, Thomas Hughes, Chippenham, of St. George's Hospital.
Bryan, Francis Charles, L.S.A., Northampton, of St. Mary's Hospital.
Canton, Frederick, Great Marlborough-street, of St. George's Hospital.
Clarke, Frederick Howard, L.S.A., Devonport, of Guy's Hospital.
Conolly, Stephen Fullom, Kilburn, N.W., of the Charing-cross Hospital.
Curling, William, L.R.C.P. Lond., Ramsgate, of the London Hospital.
Domville, Edward James, Exeter, of Guy's Hospital.
Eardley-Wilmot, Robert, Chandos-street, W., of King's College.
Edginton, Robert William, Stow-on-the-Wold, of the Birmingham School.
Edis, John Butler, Peterborough, of the London Hospital.
Fitt, Samuel Weekes, L.R.C.P. Edin., Trinidad, West Indies, of King's College.
Hannay, Robert Strickland, Belfast, of the Dublin School.
Heygate, William Harris, L.S.A., West Haddon, Northamptonshire, of University College.
Holden, Alfred Fletcher, Cape of Good Hope, of University College.
Hopkins, Frederick Fraser, Henley-in-Arden, of the Birmingham School.
Hughes, Evan Thomas, L.R.C.P. Edin., and L.S.A. Lond., Tanyrallt, Anglesea, of the Glasgow School.
Hughes, Hugh Robert Greig, Bangor, North Wales, of the Edinburgh School.
Hutson, Charles, Barbadoes, of St. Bartholomew's Hospital.
Johnson, Charles Hargitt, L.S.A., Hull, of Guy's Hospital.
Kiddle, John Nelson, Adelaide-road, N.W., of Guy's Hospital.
Lammiman, Cleland, Commercial-road East, of St. Bartholomew's Hospital.
Ledyard, William Edward, M.B. Toronto, Toronto, Canada, of St. Thomas's Hospital.
Lyons, Isidor Isaac, L.R.C.P. & L.M. Edin., and L.S.A. Lond., Alexandra-road, St. John's-wood, of St. Bartholomew's Hospital.
M'Donald, Wallis, L.R.C.P. Edin., Teignmouth, Devon, of St. George's Hospital.
Smith, Gilbart, B.A. Dub., Blackrock, co. Dublin, of the Dublin School.
Southee, Henry Edward, L.S.A., Ely, Cambridgeshire, of Guy's Hospital.
Spencer, Francis Henry, L.S.A., Chippenham, of King's College.
Thompson, Joseph, L.R.C.P. Edin., Kirkby Stephen, Westmoreland, of the Glasgow School.
Thurland, Francis Edward, Thurstaston, Cheshire, of St. Bartholomew's Hospital.
Walter, Clement Cuthbert, Dover, of St. George's Hospital.
Watson, William George, L.S.A., Sydney, Australia, of University College.
Willcocks, Isaac, L.S.A., West Looe, Cornwall, of St. Bartholomew's Hospital.
Williams, Edward, L.S.A., Aberbank, Llandyssil, of University College.
Wybrants, Robert Bath, L.K. & Q.C.P. Ireland, Shepton Mallett, of the Dublin School.
Younger, Edward George, L.S.A., Blackheath-hill, of Guy's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

CATON, RICHARD, M.D. Edin.—Demonstrator of Practical Physiology and Histology in the Liverpool Royal Infirmary School of Medicine.

GARRINGTON, ARTHUR M., M.D., M.R.C.S. Eng.—Surgeon to the Borough Gaol of Portsmouth.

HARRIS, MICHAEL, M.R.C.S., M.B. Mass.—House-Surgeon to the Evelina Hospital.

NEWTON, R. CLARK, M.R.C.S.E., L.M., and C.M.—Visiting Surgeon for the out department of the Lying-in Hospital, Newcastle-on-Tyne.

ROGERS, Mr. ROBERT.—Dispenser at the Plymouth Public Dispensary.

WATTIE, C. LINDSAY, M.B., C.M.—Resident Assistant Medical Officer to the Hospital Ship for Seamen, Cardiff.

MILITARY APPOINTMENTS.

BREVET.—Surgeon-Major Joseph Fayrer, M.D., C.S.I., Bengal Medical Department, to be Honorary Physician to the Queen, *vice* Campbell Mackinnon, M.D., C.B., late Inspector-General of Hospitals, Bengal Medical Department, deceased.

BIRTHS.

ADCOCK.—On July 24, at Sandgate, Kent, the wife of John Adcock, M.D., Army Medical Staff, of twins, son and daughter.

EASTON.—On July 23, at 20, Connaught-terrace, Hyde-park, the wife of John Easton, M.D., of a daughter.

HOOPER.—On July 21, at 67, High-street, Wandsworth, the wife of Dr. J. Harward Hooper, of a daughter.

JONES.—On July 17, at Ashbrook-place, Brecon, the wife of Dr. Talfourd Jones, of a daughter.

RANSOM.—On July 17, at Low Moor, Yorkshire, the wife of W. F. Ransom, L.R.C.P., M.R.C.S. Eng., L.S.A. Lond., of a son (stillborn).

READ.—On July 18, the wife of Thomas Read, R.C.S.E., Dental Surgeon, 8, Holles-street, Cavendish-square, W., of a son.

MARRIAGES.

CADELL—MCCRAE.—On July 20, at the Chapel, Charterhouse, George Cadell, Madras Forest Department, son of William Molle Cadell, Madras Civil Service, to Mary Amelia Morrison, youngest daughter of the late Farquhar McCrae, M.D., formerly of the 6th Dragoons.

CALICHIOPULO—MACLIMONT.—On July 13, at Corfu, John Villetta Calichiopulo, Esq., son of the late Sir Altavilla Villetta Calichiopulo, K.C.M.G., President of the Ionian Legislative Assembly under the British Government, to Anna, widow of Robert MacLimont, M.D., and second daughter of the late Charles Colville Ingate, Esq., Patras, Greece.

ELLERY—CLARK.—On July 20, at Plympton St. Mary, Devon, R. Ellery, L.R.C.P., M.R.C.S., L.S.A., of Ridgway, Plympton, to Elizabeth Mary, third daughter of James E. Clark, Esq., of Underwood, Plympton, Devon.

HUTCHISON—MEREDITH.—On July 25, at St. John Baptist, Bathwick, Bath, John Hutchison, Esq., of Doncaster, to Helen T. Meredith, younger daughter of the late Edward Taylor Meredith, M.R.C.S., L.S.A.

MATTERSON—DARNELL.—On July 20, at St. Edward's Church, Dringhouses, near York, William Key Matterson, Lieutenant 1st Battalion 22nd Regiment, eldest son of W. Matterson, M.D., of York, to Jessie de Mowbray, only daughter of Robert Mowbray Darnell, late 11th Light Dragoons, of Dringhouses, York.

OAKES—CANE.—On July 25, at the Church of St. Bartholomew, Sydenham, Augustus Henry Oakes, second son of the late Lieut.-Col. R. M. Oakes, 1st Life Guards, to Jane Alice, second daughter of the late William Henry Cane, M.D., of Uxbridge.

OBBARD—JOSEPH.—On May 17, at Madras, Thomas Obbard, Captain Madras Staff Corps, 2nd Wing Subaltern 17th Regt. M.I., to Hosanna Lily Marion, eldest daughter of Surgeon J. M. Joseph, M.D., L.S.A., 17th Regt. M.I.

ROBERTS—MONTEITH.—On July 22, at the parish church, Beckenham, Henry David, third son of the late Dr. Roberts, of Mitcham, Surrey, to Janet Anderson, daughter of the late John Monteith, of Calcutta.

THOMSON—OMOND.—On July 25, at 43, Charlotte-square, Edinburgh, George Webster Thomson, Free Church, Kirkcaldy, to Mary, daughter of Robert Omond, M.D., F.R.C.S.E.

DEATHS.

BERNARD, SYLPHIA, relict of the late Dr. Bernard, at 2, Alma-terrace, Parker's-piece, Cambridge, on July 9, in her 80th year.

BRADY, Dr. THOMAS, late Surgeon of her Majesty's 8th Regiment, at 14, Rue des Alpes, Geneva, on July 12.

CLARKE, WILLIAM, M.R.C.S., late of Colombo, Ceylon, at Shallowford House, Morton-bridge, Stafford, on July 21, in the 60th year of his age.

KEBBELL, AUGUSTA LOUISA, the second and beloved daughter of William Kebbell, M.D., at 7, Upper Brunswick-place, Brighton, on July 20, aged 15.

LUCAS, JANE POWER, daughter of the late Dr. Philip Bennett Lucas, of Arundel-gardens, Kensington-park, W., on July 23.

MCDERMOTT, JANE ELIZA, widow of the late James Bryan McDermott, at 8, Craven-street, Strand, and eldest daughter of the late David Rees, M.D., on July 23, aged 62.

MILES, Dr. HERBERT CHALMERS, F.S.S., Surgeon Royal Artillery, only surviving son of John Miles, M.D., Eastbourne, at Colaba, Bombay, on June 16, after a short but severe illness.

PRITCHETT, GEORGE W., retired Surgeon, at North-hill House, Plymouth, on July 18, aged 65.

ROSS, WILLIAM HAMILTON BROWN, L.R.C.S. Edin., Surgeon-Major in H.M.'s Forces, lately retired from Bengal Medical Service, at 149, Upper Lewes-road, Brighton, on July 19, aged 55.

SHIRLEY, HENRY JAMES, F.R.C.S., late Surgeon Worcester Militia, and Assistant-Surgeon to H.M. Cavalry Staff, Canterbury and Shorncliffe, at 4, Grove-terrace, Highgate-road, on July 25.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN.—Resident Medical Officer; must be duly qualified and registered. Applications and testimonials to the "Medical Committee," on or before August 3. Election on August 7.

BIRMINGHAM, PARISH OF.—Dispenser; must be duly registered under the Pharmacy Act, 1868. Applications and testimonials to W. Thompson, 1 sq., at the Parish Offices, Paradise-street, on or before August 14.

BOURNEMOUTH GENERAL DISPENSARY.—Resident Surgeon; must have both Medical and Surgical qualifications and be registered. Applications and testimonials to B. A. Rugg, Esq., for the President of the Dispensary, on or before August 28.

BRADFORD INFIRMARY AND DISPENSARY.—Physician; must be a Graduate in Medicine of the Universities of the United Kingdom, or a Fellow or Member of one of the Colleges of Physicians. Applications and testimonials to Mr. Charles Woodcock, Secretary.

HEREFORD GENERAL INFIRMARY.—Resident House-Surgeon; must be M.R.C.S. and L.S.A. Applications and testimonials to T. Owen Fowler, Esq., Savings Bank, Hereford. Election on August 9.

HOSPITAL FOR SICK CHILDREN, 49, GREAT ORMOND-STREET.—Assistant-Physician; must be a Fellow or Member of the Royal College of Physicians of London. Applications and testimonials to be sent in on or before August 2.

HUDDERSFIELD INFIRMARY.—House-Surgeon; must have both Medical and Surgical qualifications, and be registered. Applications and testimonials to Mr. John Marsden, on or before August 14.

INFIRMARY FOR EPILEPSY AND PARALYSIS, CHARLES-STREET, PORTMAN-SQUARE, W.—Physician; must be a Member or Fellow of the Royal College of Physicians, London. Applications and testimonials to Mr. E. Watherston, Hon. Sec., on or before July 31.

UNIVERSITY OF DURHAM COLLEGE OF MEDICINE, NEWCASTLE-ON-TYNE.—Medical Tutor. Applications and testimonials to Luke Armstrong, Esq., College of Medicine, Newcastle-on-Tyne, on or before August 31. It is particularly requested that no *original* testimonials be sent.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1861.

RESIGNATIONS.

Bridgwater Union.—Edward Carse has resigned the Middlezoy District; area 6997; population 2317; salary £36.

Brixworth Union.—Dr. J. C. Prichard has resigned the Second District; area 12,185; population 3494; salary £78.

APPOINTMENTS.

Bridgnorth Union.—John R. Roe, Licentiate in Medicine, Royal Coll. Surgeons Ire., Diploma in Medicine Royal Coll. Phys. Edin., to the Fourth District; and Wm. Thursfield, M.D. Aberdeen, L.R.C.P. Eng., M.R.C.S.E., to the Third District and Workhouse.

Eton Union.—John Brickwell, M.R.C.S., L.S.A., to the Stoke District.

Halifax Union.—Thomas Henry Turney, M.R.C.S. Eng., L.S.A., to the Sowerby District.

Luton Union.—Norman Shanks Kerr, M.D. Glasg., Master of Surgery Glasg., to the Markyate-street District.

Northleach Union.—Richard Jocelyn Swan, M.R.C.S.E., L.M. Dub., to the Second District.

THE Surgeoncy of Chatham Dockyard will shortly become vacant.

THE Parliamentary Report from the Select Committee on Protection of Infant Life was issued on Wednesday.

DR. PALFREY, of Finsbury-square, has been elected Physician of the General Lying-in Hospital, York-road, Lambeth.

No deaths had occurred from fever at Buenos Ayres between June 21 and 27.

THE *Cambrian* arrived at the Cape on the 18th ult., having small-pox on board. Small-pox has broken out in Cape Town.

THE sanitary condition of Paris is satisfactory. The mortality last week was only 859, notwithstanding the heat; and no case of cholera occurred.

THE fashionable Physician of Cairo, Egypt, Thomas Monroe, was a slave, and ran away from his proprietor at Charlestown, South Carolina, twelve years ago.

THE late Deputy Inspector-General of Hospitals, Thomas Mostyn, whose obituary appeared in our issue of July 15, served for an uninterrupted period of forty-seven years, thirty-three of which he was full Surgeon in the 27th Inniskillens.

THE schooner *Example* arrived at Waterford on Friday, from Kingstown, having on board a case of small-pox. Dr. Burkett, on examination, declared the case to be one of the very worst description.

ASIATIC cholera is entering Western Europe through Russia, where, Dr. Zuelzer says, it is fast advancing on the German frontiers. At its present rate of progress it may reach Germany in two or three weeks.

VACCINATION AND SMALL-POX.—The half-yearly vaccination returns ending June 30, presented to the Kidderminster Board of Guardians, showed there were only two cases which had exceeded the time allowed by law, and the vaccination inspector reported that there were no cases of neglect within the district.

ROYAL MEDICAL COLLEGE.—At a meeting of the Council of the Royal Medical Benevolent College, the Rev. Dr. West spoke of the desirability of introducing lay boys, which had hitherto been impossible from want of funds. Mr. Erasmus Wilson offered to erect at his own expense a suitable building for their reception, the estimated cost of which will be £3000.

REGISTER OF VACCINATION.—Richard Vickers, a commercial traveller, was fined 20s. by the Manchester magistrates, on Tuesday, for neglecting to cause his child to be vaccinated. He contended that the non-vaccination of his child had not been demonstrated; but the Bench held that he was liable to be fined, he not having sent the required certificate to the registrar of the district.

AT a meeting of the Parliamentary Bill Committee of the British Medical Association, held on Wednesday, July 19, at 37, Soho-square, Mr. Corrance, M.P., attended and explained the scope and purpose of his motion on Poor-law reform, and the following resolutions were unanimously passed:—"1. That this Committee, having heard Mr. Corrance's views on the subject of Medical relief to the poor through the Dispensary system, similar to that carried out in Ireland, provided the distribution of tickets for Medical attendance be restricted to the relieving officers, subject to confirmation by the guardians at their next meeting, is of opinion that his proposed measure will be beneficial to the poor, the ratepayers, and the public. 2. That the Parliamentary Committeee, having considered the 'Local Government Bill,' are of opinion that the measure is calculated to add greatly to the facilities for carrying out the various Acts relating to public health, and that they most cordially approve of the Bill. 3. That this Committee, having considered the Lunacy Regulation Bill for Ireland introduced by Sir Dominic Corrigan, fully approve of the terms of the Bill, and that the Secretary be instructed to communicate with Sir Dominic Corrigan, in order to take steps to aid in passing this measure. A sub-committee was appointed to consider the amendments of the Pharmacy Bill, and also to draw up certain regulations which it is considered desirable should be introduced into the Bill."

THE following is the list of officers of the Royal College of Physicians nominated by the Council in the present year:—*Censors:* James Risdon Bennett, M.D.; Sir William Jenner, Bart., M.D.; Francis Sibson, M.D.; William Munk, M.D. *Treasurer:* Frederic John Farre, M.D. *Registrar:* Henry Alfred Pitman, M.D. *Harveian Librarian:* William Munk, M.D. *Member of Council:* Henry Bence Jones, M.D., in place of George Burrows, M.D., now President. *Examiners:*

Anatomy and Physiology—Lionel Smith Beale, M.D., and Frederick William Pavy, M.D.; Chemistry, Materia Medica, and Practical Pharmacy—Alfred Baring Garrod, M.D., and Alfred Swaine Taylor, M.D.; Medical Anatomy and the Principles and Practice of Medicine—William Richard Basham, M.D., and Herbert Davies, M.D.; Midwifery and the Diseases peculiar to Women—John Hall Davis, M.D., and John Braxton Hicks, M.D.; Surgical Anatomy and the Principles and Practice of Surgery—William S. Savory, Esq., F.R.C.S., and Campbell De Morgan, Esq., F.R.C.S. *Curators of the Museum:* The President; Frederic John Farre, M.D.; William Wegg, M.D.; Francis Sibson, M.D.; Reginald Southey, M.D. The following is an extract from regulations—"of voting":—"At the meetings held for the election of Censors, Treasurer, Registrar, Members of Council, Members of the College, Examiners, Librarian, or Curators of the Museum, the ballot shall be conducted as follows:—A list containing the name or names of the Fellow or Fellows, or other person or persons nominated to the office or offices to be filled up, shall be sent round to each Fellow of the College, at least one week before the day of election, and each Fellow present shall, at a meeting of the Fellows to be holden by them for that purpose, place in the urn such list, striking out the name or names of any Fellow or Fellows, or other person or persons of whom he disapproves for the office or offices respectively."

Professional Examinations.—The following were the questions in Surgery, etc., submitted to the 114 candidates who offered themselves for the diploma of Membership of the Royal College of Surgeons on Friday last, viz.:—1. Mention the articular surfaces of the superior maxillary bone; describe the operation for its removal, and the parts cut through in the operation. 2. Describe the operation of extirpation of the globe of the eye; and state the injuries or diseases which render the operation advisable. 3. Name the parts cut through in the following operations, viz.:—Harelip, umbilical hernia, amputation of the thumb at the carpo-metacarpal joint, and in ligature of the ulnar artery in the middle of the forearm. 4. Enumerate the various kinds of ulcer which occur on the tongue, state the cause and characteristic appearance of each, and write in full prescriptions for their appropriate treatment. 5. Give the Surgical anatomy of the ischio-rectal region, and describe the dissection necessary to display it. 6. Mention the diseases or other conditions which may render laryngotomy or tracheotomy necessary. Describe the mode of performing those operations, and state your reasons for preferring one to the other. The following questions in Medicine were submitted on Saturday, viz.:—1. Mention the duration of the incubation and subsequent stages in small-pox, measles, and scarlet fever, and describe the eruptions in those diseases, and state how you would severally distinguish them from each other. 2. When would you consider a patient who had had small-pox or scarlet fever free from the risk of conveying the disease to others. 3. Mention some of the preparations of iron and lead in the Pharmacopœia, giving the doses and purposes for which they are employed. Write a prescription for a case of hæmoptysis. The next examination for Membership will take place in November.

The Hunterian Museum.—On Friday last his Imperial Majesty the Emperor of Brazil, accompanied by his Excellency M. de Almeida Areas, the Brazilian Minister, visited the Royal College of Surgeons. He was received by Mr. George Busk, F.R.S., President of the College, and Prof. Flower, F.R.S., the Conservator of the Museum, where he spent upwards of an hour in examining the magnificent collection. His Majesty displayed a remarkable familiarity with the principal subjects illustrated in the Museum, and an acquaintance with recent English scientific literature, showing, by his remarks and the interest he took in various specimens in the collection, that comparative anatomy and zoology are included among the numerous branches of knowledge in which he is well versed. He particularly wished to see the skeleton of the *Ornithorynchus paradoxus* of Bennett and the allied monotreme, the *Echidna*, and placed them side by side to observe their distinguishing characteristics. He was also much interested in the young hippopotamus, in the pathological department; Professor Wilson's dermatological collection and the extensive series of calculi particularly attracted his Majesty's attention. On leaving, he expressed himself as highly gratified with the arrangement of the collection and the facilities it afforded for study. On the same morning he paid an early visit to Dr. Hooker, F.R.S., at Kew, to Professor Owen, F.R.S., at Sheen Lodge, and to Earl Russell, in Richmond-park. In the afternoon, accompanied by the Empress, he met a select party of men eminent in various branches of science at the house of Mr. W. Spottiswoode, the Treasurer of the Royal Society, the following being among those present:—Lord Houghton, the Dean of Westminster, Professors Ramsay, Stokes, Flower, and Huxley, Sir Philip Egerton, Drs. Hooker, Sharpey, Carpenter, A. Farre, Gull, Sibson, and Guenean de Mussy, Messrs. Bowman, Lassell, Lockyer, G. Jeffreys, Sylvester, Huggins, Captain Galton, etc. His Majesty appeared much pleased with the opportunity of becoming personally acquainted with men many of whose names had long been familiar to him, and said that he should, on his return to Brazil, follow the course of English scientific investigation with still greater interest than before.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Dr. Guisan.—Your communication received, with thanks, July 25.

Harrmatan.—We question if much good could be done at this date—seven years after the occurrence.

Bulbus.—Arbuthnot's life is included in the prefaces of Johnson's "Poets." He was a man of the highest morality and independence.

A Bayswater M.D.—Under the circumstances of the case, we think the patient had clearly placed herself under his care. It would have been only proper for him to have called the following morning, and if no mention had been then made of a fee, a gentle reminder would not have been out of place.

A Rejected One.—There will be an examination in Arts, etc., at the Society of Apothecaries in September next. If you are successful there, you could at once enter on your Professional studies.

Dens Sapientiæ, York.—There will be an examination for the Dental diploma of the College of Surgeons early in the ensuing week. The examinations for the diploma of Membership of the College, for the present session, were brought to a close yesterday (Friday). The examination for the "L.M." will take place on Monday next.

Stapleford, near Nottingham.—We have received a preliminary prospectus of what appears to us to be a most objectionable scheme to "supply medicines of the best quality, added to the most experienced Medical advice in the diseases of the industrial classes resident in the rural districts, full 50 per cent. under the charges usually made by Medical men in private practice." The following somewhat startling announcement is made. Surely Dr. Chambers will scarcely be pleased with the manner in which his name is used. It is certainly a somewhat novel position for a Physician of his eminence in the Profession to be placed in. The italics are our own:—

"Metropolitan Consulting-Physician—Dr. Thomas King Chambers, 64, Brook-street, Grosvenor-square, London, M.D. of Oxford University, Fellow of the Royal College of Physicians, London, Consulting-Physician to St. Mary's and the Lock Hospitals, and Honorary Consulting-Physician to His Royal Highness the Prince of Wales.

"Resident Consulting-Surgeon—Dr. Yelverton Bosquet, Fellow of the Obstetric and Anthropological Societies of London, Member of the British Medicial and Surgical Association, Member of the Society of Emulation of Paris for Chemical Science, Member of the Archæological Society of Ireland, and Author of various Essays upon the subject of Civilised Man suffering from Disease.

"Purveyors of Medicines and Medical Appliances—Messrs. Clarke, Bleasdale, Bell, and Tollington, Wholesale Druggists, York.

"Purveyors of Surgical Appliances—Messrs. Maw and Thomson, London.

"N.B.—The above-named Institution is now amalgamated with the London and Provincial Confidential Medical Consultation Agency, instituted for the purpose of providing the highest resources of modern Medical science in those *intricate, difficult, and often concealed diseases affecting the blood, the nervous system, and the sexual organism, which hold the most intimate relations with the higher and more sacred aspects of modern male and female social life.*"

The prospectus proceeds to speak of the advantages which institutions of the kind have afforded to suffering humanity, and states that fifty of them are now in operation; but it does not say where they are situated.

An English Poor-law Guardian.—The Irish Poor-law Medical Association consists of upwards of 1000 members. It held its first annual meeting in the Rotunda, Dublin, on June 5. The objects of the Association are as under. A full report of the meeting may be obtained by application to J. Atkinson and Co., printers, Grafton-street, Dublin:—

"1. That the Medical officers of each union shall elect from amongst their number a union representative.

"2. That the union representatives of each county shall elect from amongst their number a county representative, who shall be in communication with the Parliamentary representatives of that county.

"3. That the county representatives shall invite every member of the Medical Profession in each county to join this Association, their interests (as far as they go) being identical with those of the Poor-law Medical officers.

"4. That, in any union or county in which it may be deemed advisable to do so, any member of this Association, although not being a Poor-law Medical officer, may be elected by ballot to be either the union or county representative.

"5. That the thirty-two county representatives shall form the council of the Association.

"6. That a meeting shall be held quarterly and alternately in each of the provinces of Ireland.

"7. That an annual meeting shall be held, when the general president, treasurer, and secretary for the year shall be appointed.

"8. That the annual subscription for each member shall be 2s. 6d. (There being 1000 Poor-law Medical officers in Ireland, this would produce an income of £125 per annum, which would cover printing, postage, and stationery."

Plymouth.—The Committee of Guardians have addressed a letter to the Poor-law Board in reference to the decrease in the number of their Medical officers and the reduction of their salaries, mentioned in our last issue. The Committee defend themselves on the ground that their alteration of the districts took place because it was considered to be more convenient that each Medical officer's district should be similar in extent to those of the relieving officers, so that there might be one Surgeon to each relieving officer's district. The Committee were of opinion that it was "possible for three gentlemen not much engaged in private practice to perform with efficiency all the duties within such districts." The salaries were equalised, as the districts were about equal. Eight gentlemen, including all the late parochial Medical officers, became candidates for the appointments upon the terms specified. The Committee declare that it is the earnest desire of the guardians to expend the funds intrusted to their charge in a prudent manner, but at the same time it has been their first consideration to provide an adequate and efficient staff of Surgeons to the poor. So the matter at present stands. We shall look for the decision of the Poor-law Board on propositions which we think neither just nor generous.

COMMUNICATIONS have been received from—

Dr. Garrington; Mr. Ellery; F. T.; Mr. Rawson; Mr. Graham; H.; Mr. Thomas Dixon; Dr. Sturges; J. T.; Messrs. Condy and Co.; Mr. H. Moody; Dr. Halbertsma, of Utrecht; Mr. J. Byrne; Dr. Caton; Dr. Handfield Jones; Mr. Weightman; Dr. Falconer; Mr. D. Roberts; Mr. J. Chatto; Mr. H. Arnott; Dr. Baanes; Dr. Sabben; Dr. Phillips; Dr. F. Porter Smith; Dr. Cholmeley; Mr. T. Spencer Wells; Mr. H. Morris; Dr. Talfourd Jones; Mr. Bosanquet; Dr. E. Heinrich Kisch.

BOOKS RECEIVED—

Dr. Tripe's Report on the Sanitary State of the Hackney District—The New Sydenham Society's Biennial Retrospect of Medicine and Surgery for 1869-70—Puerperal Temperatures, by Dr. William Squire—Thoughts, Philosophical and Medical, selected from the works of Francis Bacon—The Lisdoonvarna Spas and Seaside Places of Clare, by Dr. E. D. Mapother—Dr. M. H. Henry (New York) on Amputation of Redundant Scrotum in the Treatment of Varicocele—Hospital Statistics: A Suggestion for the Disentanglement of the Financial Perplexities of Hospital Accounts, by Charles Kemble, M.A. (Oxon.)

PERIODICALS AND NEWSPAPERS RECEIVED—

Nature—Bridlington Quay Observer—Pharmaceutical Journal—Western Daily Mercury—The Yorkshire Post—The Overland Ceylon Observer—Mechanics' Magazine—Medical Press and Circular.

APPOINTMENTS FOR THE WEEK.

July 29. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

31. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.

August 1. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

2. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m., Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic; 11 a.m.

3. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; West London, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

4. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.

VITAL STATISTICS OF LONDON.

Week ending Saturday, July 22, 1871.

BIRTHS.

Births of Boys, 1075; Girls, 1035; Total, 2110.

*Average of 10 corresponding weeks, 1861-70, 1946·7.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	697	584	1281
Average of the ten years 1861-70	748·7	704·9	1453·6
Average corrected to increased population	...	...	1609
Deaths of people above 90	...	...	...

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561189	12	8	7	...	9	1	1	3	21
North ...	751668	59	1	8	...	4	2	1	...	25
Central ...	333887	7	2	4	...	4	...	...	...	10
East	638928	21	3	1	...	2	1	4	1	30
South	966132	36	3	4	1	9	1	3	6	24
Total	3251804	135	17	24	1	28	5	9	10	110

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·775 in.
Mean temperature	65·5°
Highest point of thermometer	82·6°
Lowest point of thermometer	54·0°
Mean dew-point temperature	57·1°
General direction of wind	S.W., W.S.W., & S.S.W.
Whole amount of rain in the week	0·05 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, July 22, 1871, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1871.*	Persons to an Acre. (1871.)	Births Registered during the week ending July 22.	Deaths Registered during the week ending July 22.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3263872	41·8	2110	1281	82·6	54·0	65·5	18·61	0·05	0·13
Portsmouth ...	113450	11·9	81	40	81·4	51·2	64·6	18·11	0·03	0·20
Norwich	80533	10·8	48	27	81·2	49·0	63·1	17·28	0·07	0·18
Bristol	183298	39·1	120	66	...	...	...	...	...	...
Wolverhampton ...	68476	20·2	52	15	77·4	49·2	60·4	15·78	1·06	2·69
Birmingham ...	344980	44·1	231	117	75·3	52·0	61·6	16·44	0·80	2·03
Leicester	95882	30·0	78	37	80·2	49·0	62·7	17·06	0·69	1·75
Nottingham ...	86929	43·6	51	37	78·0	48·7	62·0	16·67	0·33	0·84
Liverpool	492649	96·8	357	284	71·3	53·0	59·1	15·05	0·43	1·09
Manchester ...	356099	79·4	235	178	78·8	49·0	61·0	16·11	0·41	1·04
Salford	125422	34·3	80	66	76·2	46·7	58·9	14·94	0·40	1·02
Bradford	146987	22·3	41	46	74·7	53·2	60·6	15·89	0·17	0·43
Leeds	260657	12·1	173	104	77·0	52·0	61·3	16·28	0·20	0·76
Sheffield	241507	10·6	178	117	79·0	51·0	61·8	16·56	0·08	0·20
Hull	122266	34·3	85	36	80·0	49·0	61·0	16·11	0·28	0·71
Sunderland ...	98797	29·9	75	89	...	...	...	...	...	...
Newcastle-on-Tyne	128677	24·1	89	81	69·0	51·0	57·1	13·94	0·40	1·02
Edinburgh	201728	45·6	139	94	72·7	46·0	56·7	14·83	0·70	1·78
Glasgow	479227	94·7	442	326	67·7	47·8	58·2	14·55	1·04	2·64
Dublin (City, etc.)	322321	33·1	129	99	76·1	46·5	61·0	16·11	1·03	2·62
Total of 20 Towns										
in United Kingd'm	7215757	33·8	4794	3140	82·6	46·0	61·0	16·11	0·46	1·17

At the Royal Observatory, Greenwich, the mean reading of the barometer in the week was 29·78 in. The highest was 30·00 in. at noon on Sunday, and the lowest was 29·48 in. at 3 p.m. on Saturday.

* The figures in this column are the unrevised numbers enumerated in April last, raised to the middle of the year by adding 1-40th of the rate of increase which prevailed between 1861 and 1871; the numbers for Edinburgh and Glasgow have been furnished by the Registrar-General of Scotland, while those for Dublin are still the estimated numbers recently used.

ORIGINAL LECTURES.

CLINICAL LECTURE
ON INSTANCES OF SUCCESSFUL TREATMENT OF DEGENERATIVE DISEASE OF KIDNEYS.

By C. HANDFIELD JONES, M.B. Cantab., F.R.S.

Gentlemen,—Among the diseases which claim the care of the Physician, there are few more frequent or more grave than those which concern the kidneys. Bright's disease (or diseases) especially is a foe whom we have every reason to dread, and too often we must admit the fruitlessness of our best efforts at resistance. One cause of our failure is that the cases come to us at too late a period, when secondary disease has become firmly established; and another is that they do not remain under treatment long enough, and are not placed under favourable circumstances for attaining a solid cure. Now and then, however, we have better success, and the study of the means which appear to accomplish the desired end seems to me very instructive. I shall relate to you two such cases:—

Case 1.—E. H., aged 14, girl, admitted July 28, 1865. Has not been well for three years since she had rheumatic fever; had chorea last year; anasarca of legs came on a month ago. Her mother states that she has seven living, all very healthy but her. There is no phthisis in family, and no scarlet fever has occurred for years. Her face looks rosy and well, but her eyelids swell in the morning, and her legs are swelled a good deal when she is up. Breath short on exertion; no cough. Heart's action regular; loud systolic murmur at base; prolonged systolic murmur at apex, and in left side and in left back; heart is not hypertrophied; apex beat is in normal site. Urine is tolerably free, pale; specific gravity 1016; is loaded with albumen; deposits a good deal of whity sediment. The sediment consists of casts, mostly granular, of medium size, not numerous; of very numerous altered pus or mucous corpuscles, showing composite nuclei; and of renal epithelial particles, with a few glomeruli.

August 30.—The urinary sediment contained very numerous pus corpuscles, some large homogeneous casts, and crystals resembling those of uric acid.

About a fortnight later the latter were replaced by phosphatic prisms.

October 4.—The urine was loaded with albumen, and the sediment was full of large glomeruli.

18th.—Sediment of same character.

28th.—Urine scantier; specific gravity 1027; loaded with albumen. Both hands puffed; left always most. General condition much as before. Up to this date she had used the following remedies:—Ferri pot. tart. gr. x., liq. potass. ♏xx., aq. ℥jss., ter die; pulv. jalap. co. ℈ss., alt. aur., till August 2; then liq. pot. arsenit. ♏iv. ter die till August 12; then ant. pot. tart. gr. $\frac{1}{2}$, tinct. calumb. ♏v., aq. ℈ss., ter die, vel. 4tis hôris, till September 8, when she began tannini gr. iv., aq. ℥j. ter die. On September 23 she was ordered syr. ferri iodid. ℥j. ter die; and besides, on 30th, a hot-air bath every other night. On October 6, calomelanos gr. $\frac{1}{2}$, o. n., and ant. pot. tart. gr. $\frac{1}{6}$, tinct. calumb. ♏x., aq. ℥j., ter die. On October 28 I ordered pot. acetat. gr. xx., ferri acetat. gr. ij., mist. ammon. acetat. ℥j., ter die.

November 15.—Dropsy almost disappeared. The urine was still highly albuminous; specific gravity 1019; deposited but little sediment; the sediment contained a few glomeruli, clusters of oil-drops, no casts, a little renal epithelium.

22nd.—Is free from dropsy. Wishes to leave Hospital. Urine then deposited a pretty copious sediment, consisting of glomeruli and fat-drops, either free, or in cells, or in groups; there was little actual renal epithelium, a few nuclear corpuscular casts, and a very few short fragmentary granular; specific gravity 1020; acid. She was taking, besides the mixture, cod-live oil dragées, which she had begun September 8.

December 30.—Continues well. Catamenia have appeared, after six months' absence. Urine clear, but slightly albuminous; specific gravity 1012; deposited abundance of uric acid, but no trace of glomeruli.

February 17, 1866.—Came to see me at Hospital. She looked well, and free from any trace of dropsy. Catamenia were present.

23rd.—Doing well until lately, but urine is much more albuminous again; specific gravity 1019; deposits a light, flocculent sediment, consisting of epithelial scales, and a few very short and imperfect casts, but no glomeruli.

March 14.—Continues in very fair case; the mitral murmur has quite disappeared.

28th.—Urine pale; specific gravity 1018; contains some albumen, and a very little diffused sediment, which consists mainly of scaly epithelial particles, and flakes of the same, with a very few homogeneous casts of medium width. There is some puffing of the face and feet.

April 11.—Doing well; goes out every day; no dropsy; good colour of face.

26th.—Face gets a little puffed at the time of the catamenia.

May 9.—Is doing well; no dropsy; can walk three miles a day. Urine, specific gravity 1022; palish; contains some albumen, but deposits no casts or renal epithelium, only a good deal of scaly. She has been taking, since April 2, quin. disulph. gr. j., liq. ferri peracetat. ♏xv., acidi acet. dil. ♏xx., aq. ℥j., ter die.

23rd.—Is not nearly so well; affected by the severe cold easterly winds; has taken cold. Urine is red, as from blood in it, and is turbid; the sediment contains very numerous blood corpuscles, but no casts, or evident renal epithelium; it is much more albuminous than at the last date. To remain in bed. Mist. ammon. acet. ℥j., potass. acet. gr. xx., ter die.

26th.—No better; no dropsy. Urine deposits a very large amount of dark sediment; specific gravity 1011; the deposit shows only a few corpuscles, but a large amount of punctiform pigment matter. Tannini gr. vij., acidi muriat. ♏j., aq. ℥j., quat. die.

June 1.—Urine almost clear, very slightly albuminous; specific gravity 1011; on standing twenty-four hours, it deposits a large amount of crystalline urie acid, with a few corpuscular casts, some of them of rather large size. Appetite bad; stomach sick.

7th.—Doing well. Urine pale; specific gravity 1013; not albuminous; deposits a whity sediment, consisting chiefly of scaly epithelium; no casts. Is taking quin. disulph. gr. j., liq. ferri peracet. ♏xv., acid. acet. ♏v., aq. ℥j., ter die.

13th.—Doing well (her nose swells in mornings); this is especially the case some days before the catamenia; has regained appetite.

July 13.—Has just returned from a month's stay at Walton; looks well, but not vigorous. Catamenia regular; her feet do not swell at all, but the eyelids are puffed in mornings. Urine clear, bright; specific gravity 1025; clouds slightly with NO_5.

After this I saw no more of her until May 17, 1871, when I hunted her out, and found her behind a counter in a fancy workshop, in a healthy locality, looking rosy and quite well. Her sister informed me she had "got on *so* nicely."

May 26, 1867.—At my request her mother called on me, and brought me a bottle of her urine. She stated that her daughter was fairly well, but that a little swelling of her face was noticed occasionally. The catamenia were regular. She ran about, her mother said, actively, and was not put out of breath by exertion more than any person in ordinary good health would be. Urine of full yellow colour; specific gravity 1030; gave with NO_5 a perceptible albuminous cloud; deposited no casts or renal epithelium, but some scaly and some oxalate of lime. After boiling with nitric acid and being left to stand, a distinct albuminous sediment fell down, mingled with numerous masses of urie acid.

Case 2.—J. C., aged 26, carver and gilder, admitted October 25, 1870. Ill one month with distension of abdomen and anasarca of the legs; the last fourteen days the penis and scrotum have been involved. He never had rheumatic fever, and Mr. Wall, who was my House-Surgeon at the time, assures me that the renal disorder was not the sequel of scarlatina. Denies taking spirits. Tongue clammy, red at fore part and puckered, coated at back. Abdomen contains a good deal of fluid, and so do the legs. The heart-sounds are normal. Breath short. Both lower backs are dull, and are the seat of rather small crepitations; higher up the breath-sound is fairly good. Urine, specific gravity 1020; highly albuminous; deposits a whity sediment containing casts and some renal corpuscles. The sediment is not in large quantity. The urine amounts to about a pint a day. Broth diet. Liq. ferri peracetatis, ♏x., mist. ammon. acet. ℥ss., ter die.

November 8.—Ophthalmoscope does not show anything morbid in the eyes. Urine still highly albuminous; contains a good deal of light deposit, in which I find no casts, only some diffused renal epithelium. His abdomen contains much fluid, and his legs also, but he expresses himself as feeling decidedly better. He has pulv. jalap. co. gr. xl. o. mane, and a hot-air bath every night, with which he perspires freely.

26th.—No trace of anasarca; circumference of abdomen less. Urine deposits a scanty sediment, consisting solely of renal corpuscles; contains a large amount of albumen; specific gravity 1015.

December 6.—Was doing well on 3rd, but yesterday the urine became bloody, and is so to-day. He is remanded to bed, to be dry-cupped on the loins, and to take tinct. uvæ ursi ʒj., tannini gr. iv., inf. pareiræ, ʒj. ter die.

7th.—Urine much more free from blood.

10th.—Urine clear, pale, acid; specific gravity 1008; deposits no sediment; contains apparently less albumen.

21st.—Doing well; up and about; taking the liq. ferri peracetas mixture since 10th. Went out soon after.

January 4, 1871.—Came to Hospital looking well. Urine pale, clear; specific gravity 1010; notably albuminous. Pt. c. mist. oleo morrh.

February 15.—Looks wonderfully well; is able to work; complains that he does not get enough. Urine hazes with NO_3; contains a very slight trace of floating matter. Weight 114 lbs.; when he left Hospital was 106 lbs. Still takes the peracetate.

May 13.—Weight 117 lbs. Urine of good colour, clear; no sediment; is quite free from albumen.

In the first of these cases, if not in both, it seems certain that the renal disease was not of an acute kind; not, I mean, an inflammation provoked by scarlet-fever poison or a chill to the cutaneous surface. In E. H. there was a history of three years' previous ill-health, and the disorder had come on gradually. In J. C. this was not so completely ascertained, but I think there is almost no doubt that such was the case.

This is a very important point to establish, for I hold entirely with Dr. Prout that degeneration is carefully to be distinguished from inflammation as a substantially different process. Taking typical instances, we may say that the latter is a violent perturbation of the nutritive actions in a previously healthy organ, which lasts a varying but not long time, and then has a natural tendency to yield and to give place to the normal state; while the former commences latently and quietly, without overt cause, proceeds during a long time in a way of slow increase, and does not attract attention by its secondary effects until grave lesions have been produced in the organs primarily diseased. The two states are no doubt often blended; inflammation may supervene on degeneration, and sometimes this order may be reversed; but, nevertheless, it seems to me certain that the two processes are essentially different, and that this is important from a therapeutic point of view. If I diagnose inflammation as the principal factor of disorder, my therapeutical efforts will be directed chiefly to moderate hyperæmia, and to restore retentive power to attenuated capillaries, and consequently my chief remedies will be bloodletting, purgation, antimony, and astringents. But if I diagnose degeneration as the chief morbid agent, my endeavour will be mainly to improve the general nutrition of the body, and specially that of the kidneys, and I shall think much less of regulating the blood-flow and the state of the vessels. There is about as much difference between typical instances of degeneration and inflammation as there is between phthisis and simple pneumonia. I say this, well knowing, of course, that the late Professor Niemeyer and others have tried to persuade us that in the great majority of cases phthisis is but the result of pneumonia—a view which, however, appears to me to be singularly ill-supported by facts, and to assume that as the rule which is, in fact, the exception. Given a certain *quality* of system, inflammation may no doubt be followed by tubercle, or cheesy deposit, or by various degenerative changes, but, apart from this shaping influence, its products simply tend to liquescence and resorption. Much the same may be said of degeneration and inflammation. The occurrence of the latter may materially promote that of the former, but it is very far from being a necessary antecedent.

Holding these views, I rank, of course, good hygiene very high in the treatment of degeneration, and am much inclined to give it, except in the acute sequelæ, the first place. Dr. Markham recently mentioned to me the case of a man, aged 30, whose urine was highly albuminous, but who recovered completely by a residence in Spain. Dr. G. Johnson speaks of the great and extraordinary benefit which the subjects of renal disease derive from a sea voyage, and that, too, under circumstances apparently the most unfavourable. Dr. Maclaren says "that sea life has wonderful recuperative power; it is the very antithesis of town life in a crowded locality." (*British and Foreign Medical and Chirurgical Review*, 1871, vol. i.) But to too many of our patients such recreatives as sea voyages and fine climates are out of the question, and it is incumbent upon us to endeavour to supply them with a remedy which may to some considerable extent meet their necessity. The change which ensued in the first case I have narrated was certainly striking, as soon as she began to take the combination of acetates; and as the good effect continued under the use of the iron acetate, I am much inclined to regard that as the most effective agent. In the second case it was given exclusively, and the good results were very remarkable. I think I have seen the same drug useful in other instances, and I am therefore much disposed to recommend it to you. At the same time you will not, I am sure, imagine that I expect it always to prove successful, or always to be the best remedy. Too often I know it will fail altogether, or be advantageously replaced by some other ferruginous preparation. Nevertheless, I quite think, after a pretty extensive trial, that it is one of the best remedies for chronic renal degeneration which we possess.

The degenerative character of the disease in the first case seems to be strongly affirmed by the persistence of some slight traces after the lapse of six years. This would scarcely be the case if the disorder were purely inflammatory, for in these we know the albumen disappears in a few weeks or less from the urine. The length of time during which the improvement has been maintained is very satisfactory; the disorder, in fact, may be said to have been cured. The considerable gain of weight in the second case, backed by the improvement in the general appearance, is good evidence how much the nutrition of the whole body improved under the treatment. In both cases the occurrence of smart attacks of hæmaturia during cold weather, and after the patients had got about, is noteworthy, as also the ready subsidence of these under appropriate measures. You will learn from this to be on your guard against such mishaps in the cases under your care. Though cold is not the only, nor perhaps the most frequent, yet it is undoubtedly a very adequate cause of internal congestions. Lastly, I ask you to observe that both these patients were young—a matter of great moment. Degenerations, as Prout and others since his day have noted, belong especially to advancing age, and the Anno Domini disease (as one of my patients termed it) is sadly refractory to remedies.

ORIGINAL COMMUNICATIONS.

OBSERVATIONS ON OUTBREAKS OF CHOLERA IN SHIPS AT SEA.(a)

By ROBERT LAWSON,
Inspector-General of Hospitals.

At the solicitation of Dr. Milroy I have arranged the memoranda in my possession regarding outbreaks of cholera in ships at sea for submission to this Society. In addition to the interest these narratives excite, some conclusions may be drawn from them of the utmost importance in the present state of epidemiology. In investigating such points we have frequently to deal with slight manifestations of disease, which, in the default of a knowledge of their causation, many attribute to chance; but Nature does nothing by chance, and never presents us with a result, however trivial it may appear, which she has not brought about by the action of a sufficient cause; and no one can succeed in explaining her laws who neglects even the slightest indications she presents of their operation.

Most of those present are aware that I have supported the view that the concurrent action of at least three classes of causes is necessary for the development of epidemics—viz.: (1) General causes, one of which I have indicated, in connexion with fever and cholera, by the term Pandemic Wave; (2) those connected with locality, as distinguished from the persons who reside in it; (3) causes connected with persons, as distinguished from those depending on locality. If the latter classes be fully developed, intense disease may be excited under the influence of the general causes; while, if they be less developed, notwithstanding the operation of the general causes, sporadic cases or small groups only may make their appearance, or the inhabitants of certain localities may escape altogether, while those of others in their vicinity (and often mixed up with them in the most extraordinary manner) may display a large amount of sickness.

When examined for a sufficient length of time, and over an adequate space, the course of Pandemic Waves is found to be

(a) Read before the Epidemiological Society, June 19, 1871.

uniformly from south to north according to a definite law, and their position from year to year can be indicated on a map by lines of equal magnetic dip. This has been done in the map on the wall(b) for January 1 of each consecutive year. These lines, it will be seen, in some places pursue nearly the same direction as the parallels of latitude; in others, as down the western shores of Europe and Africa, they cross the parallels of latitude at considerable angles. The whole system of isoclinals has a motion to the westward, each portion, however, maintaining nearly the same angle with the parallels of latitude as represented on the map. From this it follows that where the isoclinals pursue nearly the same course as the parallels of latitude, they present little change of latitude on any given meridian for a considerable number of years; but where they are more oblique, as on the west coast of Europe and Africa, their motion to the northward, on any meridian, is so rapid that in a few years it becomes sensible, and requires to be allowed for. This change at London is equal to $1\frac{1}{4}$ days per annum in the arrival of the wave, and the same may be employed as far as St. Helena; at the Cape the change amounts to $1\frac{2}{3}$ days per annum. As the isoclinals in the map are their positions in 1840, the corrections named must be applied for the number of years which may have elapsed in any particular case within the limits mentioned. The position of the advancing edge of the wave for any period of the year 1840 may be found by simple proportion from the lines on the map, and this must be corrected in the manner indicated for subsequent years.

It is obvious that if there be a series of waves proceeding from south to north which can influence the frequency of cholera in communities otherwise favourably circumstanced for its manifestation, we should find from time to time that ships passing in the opposite direction experienced one or more outbreaks of cholera in the positions where they run into these waves, and that there should be intervals between them, of greater or less extent, comparatively free from the disease; the same should be experienced when they go from south to north, provided only they proceed more rapidly than the wave; while, if their course be nearly east or west, they may continue from commencement to end of voyage in the same waves. Having premised these explanations, the details of various outbreaks may now be given, and it will be seen how far they support this view.

The first case to which I have to draw your attention is that of H.M.'s ship *Apollo*, which carried the 59th Regiment from Cork to Hong-Kong in 1849. The first account of the occurrences in this ship to which I had access was that by Dr. Bryson, late Director-General of the Naval Medical Department, in a small volume "On the Infectious Origin and Propagation of Cholera," published in 1851. I have recently been so fortunate as to meet the Medical officer who was in charge of the troops in the *Apollo*—Dr. Fraser, 10th Hussars—and have been favoured with the perusal of his journal and reports, which afford many details not given in Dr. Bryson's account.

The *Apollo* was a frigate-built ship, having beneath the upper or weather deck a gun deck with ports on each side, and below this the orlop, which had small side scuttles, which could be opened in fine weather only. The gun-deck was occupied by the officers abaft, and by the crew on the starboard side forward, and a portion of the troops on the port side; the remainder were on the orlop. The latter, of course, could not be so efficiently ventilated as the former. The troops, including women and children, amounting to 593 persons, embarked on June 12, and the ship sailed on the 17th. Cholera had prevailed in Cork and its vicinity previous to the troops going on board, but there had been none in the ship herself up to this time. Subsequently the course of the disease was as follows:—

Date, 1849.	Ship's Position at Noon.		Winds.		Temperature.	Weather.	Cholera.		Remarks.
	Latitude.	Longitude	Direction.	Zone.			Attacked.	Of whom Died.	
June 18	51° 7′ N.	8° 34′ W.	S.S.W.	Slight	63°	Fine	1	1	
„ 27	35 21 „	15 25 „	N.E.	Moderate	67	„	1	—	
„ 29	At Madeira		—	—	70	„	1	1	A woman.
„ 30	30° 14′ N.	16° 59′ W.	N.E. by E.	—	69	„	—	1	A child died; date of attack not given.
July 1	At Tenerriffe		—	—	72	„	—	1	„ „ „ „
„ 2	SantaCruz 12 miles		N.N.E.	—	72	Sailed 8 a.m.	1	—	
„ 5	23° 58′ N.	20° 32′ W.	N.E.	Light	72	Fine	1	—	
„ 7	20 35 „	25 21 „	E.S.E.	—	76	„	1	—	
„ 8	18 8 „	26 44 „	E.	—	77	Hot and close; slight rain at noon	1	—	
„ 9	16 36 „	27 38 „	E.	Fresh	75	Fine	1	—	
„ 10	14 12 „	27 18 „	E.S.E.	„	79	„	1	—	A woman.
„ 14	7 25 „	25 37 „	S.S.E.	„	78	Very wet	—	—	
„ 15	7 12 „	23 32 „	S. by W.	Light	80	Rain	—	—	
„ 16	6 20 „	23 35 „	S.	—	81	—	1	1	
„ 17	5 14 „	24 3 „	S.S.E.	Fresh	79	Heavy rain	—	—	
„ 18	3 25 „	25 25 „	S. by E.	—	80	—	1	1	
„ 19	1 58 „	27 31 „	S. by E.	—	80	—	5*	3	* Including three of the crew.
„ 20	2 8 „	27 14 „	S. by W.	—	80	—	5†	3	† Including three of the crew.
„ 21	2 6 „	27 24 „	S.	—	80	—	1‡	—	‡ A marine.
„ 22	1 50 „	27 32 „	S.	Light	80	—	1	—	
„ 23	0 51 „	29 6 „	S. by W.	—	79	—	2§	—	§ Including one of the crew.
„ 24	0 26 S.	30 50 „	S.S.E.	Fresh	79	Commencement of S.E. trade wind	—	—	
„ 29	S 34 „	34 25 „	S.E. by E.	„	80	Showery	2	2	
„ 30	10 24 „	35 5 „	S.E. by E.	—	78	Showery and squally a.m.	3	2	
Aug. 4	21 56 „	39 41 „	N.N.E.	—	76	Lost S.E. trade	—	—	
„ 6	23 6 „	42 48 „	S.E.	Very slight	76	—	1	1	
„ 12	Off Estrella Bay		S.W.	—	73	Cloudy, hot, and close	1	1	

The first case of cholera occurred in a soldier who had had diarrhœa for some days, and on the morning of June 18 he went on deck, after getting out of his hammock much heated, and placed himself under a water-tap, and let the water run over his body. Collapse ensued immediately; there were slight cramps with the characteristic evacuations, and he died in seven hours. No other case presented itself until nine days afterwards, from which they continued to crop up until July 10. On the 14th and 15th there was heavy rain, and another case occurred on the 16th; the 17th was also rainy, followed by a case on the 18th. From the 19th to the 22nd inclusive the ship seems to have been becalmed, as her position altered but a few miles daily, and during that period there were twelve attacks, including the quarter-master of the 59th (the only officer attacked) and seven of the crew (the first among them), and six deaths. On the 23rd there were two attacks, including one of the crew (the last of these affected). The ship seems to have got a breeze on the afternoon of the 22nd, and in the course of the 23rd to have met the S.E. trade, and for some days there was another lull in the attacks, but on the 29th and 30th, while in the S.E. trade, there were five attacks and four deaths, and on August 6 and 12 another two, after she had passed out of the trade altogether.

During the prevalence of the malignant disease Dr. Fraser states diarrhœa and colic prevailed to an unusual extent, and appeared to keep pace with it, increasing as it increased, and disappearing generally with its disappearance. The diarrhœa was generally of such an aggravated form that he thought many of the cases, if not most, would have been returned during an epidemic in England as true Asiatic cholera, presenting as they did profuse vomiting and purging, great prostration, remarkable sinking of the features, and even slight cramps occasionally; but he carefully refrained from designating any case cholera in which the characteristic rice-water evacuations were not present, and the natural secretions suppressed.

The appearance of the men soon after embarkation attracted the attention of the officers on board, both naval and military. Dr. Fraser describes them as attenuated and without spirit, their eyes sunk in their heads. They were on two-thirds allowance, as was customary at that time. Preserved meat was served out every fourth day; the contents of many of the cases were found putrid, and great quantities of it were thrown

(b) See also map in Sanitary Report for the Army for 1866, p. 383, and Epidemiological *Transactions*, vol. iii., p. 216.

overboard on every occasion on which it was issued. The men had an excessive dislike to the preserved meat, and were fully persuaded it was the chief cause of the disease among them. They also had a strong aversion to the cocoa issued for breakfast, and, on representation, tea was substituted for that, the issue of preserved meat stopped, and oatmeal-gruel given in the evening, from about the middle of July to September 7.

Whether the issue of preserved meat to the crew was suspended during this period is not mentioned, but Dr. Fraser has since informed me he thinks it was not.

It will be remarked that though cholera had been in the ship for a month previously, none of the crew were attacked before July 19. There were two wide tubes on each side for allowing heated air to escape from the orlop, but as they terminated on the gun deck, instead of being carried into the open air, they merely relieved the lower deck of impure air by diffusing it on that above. Dr. Bryson states that these tubes were not opened until July 17, two days before the occurrence of the first cases among the crew, and he adds, "the greater number of the cases on this deck occurred among the men belonging to the messes close to the apertures of the tubes, or to the main hatchway, by which the impure air also escaped;" and he concludes that the disease was communicated from the lower deck to that above by means of this air. Dr. Fraser had made a diagram showing the relative position of the various messes, and of these tubes and the hatchways; and those members of which were attacked were also indicated. From this it appears the messes were numbered from 1 to 8, No. 1 being the foremost, No. 8 the aftermost. There was a gun between 1 and 2, another between 2 and 3, and a third between 3 and 4. One of the tubes was between the second gun and the third mess, the other between Nos. 4 and 5 messes, while Nos. 4 and 8 messes were about equidistant from the main hatchway, and 5, 6, and 7, of course, nearer it; No. 2 mess also was directly abreast the fore hatchway. Now, the cases presented themselves as follows:—

In No. 1 mess, away from hatchway and tubes—one case on 19th, one on 23rd.

In No. 3 mess, beside a tube, but away from a hatchway—one case on 19th, one on 20th, one on 21st.

In No. 8 mess, in vicinity of main hatchway, away from a tube—one case on 19th, two on 20th.

So that No. 2, near a hatchway, Nos. 4 and 5, with a tube between them, and as near the main hatchway as 8, and No. 6 and 7, still nearer it, altogether escaped. It is obvious, therefore, that mere vicinity to the outlets from the lower deck, and presumably to the emanations from it, could not have been the active cause of these attacks among the crew, though, no doubt, during the close, calm weather existing from the 19th to the 22nd, the vitiated air from the lower deck would be less rapidly diffused, and, so far, more injurious, than either before or after, when there was a good breeze. If, as Dr. Fraser thinks, the crew continued to use the preserved meat, it is possible that some more tainted than the rest was consumed by the messes which suffered.

The authorities at Rio Janeiro would not allow the *Apollo* to communicate with the shore, but directed her to proceed to the Ilha Grande, about sixty miles to the westward, where her crew and passengers were disembarked, and the holds cleared out. These were found clean, dry, and free from offensive effluvia, and none of the persons engaged in the work were attacked, nor, indeed, did any more cases of cholera occur during the remainder of the voyage. After leaving the Ilha Grande, on September 7, the *Apollo* called at the Cape, where she seems to have taken in water, at least; subsequently she touched at Booroo, where more water was taken on board, and immediately after its employment was commenced bowel complaints became frequent, and there were more admissions from this form of disease in January than in the four previous months. On February 1 the use of the Booroo water was discontinued, and some which had been obtained at the Cape substituted, and the number of cases of diarrhœa at once diminished. Though not connected with the cholera in the *Apollo*, this fact in the narrative of her voyage was too significant to be omitted.

The next case to which I will direct the attention of the Society was that of the *Renown*, which took the 1st Battalion 9th Regiment from Gibraltar to the Cape in 1865. The *Renown*, a fine ship of 1293 tons, with a crew of fifty-two persons, sailed from Kingston for Gibraltar, with troops on board, on August 3, 1865, and arrived on 17th, and there does not seem to have been any bowel complaint among them or the crew during the voyage. The head-quarters 1st Battalion 9th Regiment, including sixteen officers, 353 men, twenty-eight women, and sixty-five children, embarked in this vessel on August 21, part at 6.15 a.m., and the remainder at 5 p.m. The men were in five companies, designated A, B, D, F, and K. There was a single berth deck extending the whole length of the vessel, which was extremely well ventilated with side scuttles, stern lights, and shafts leading to the open air above the upper deck. The Hospital, as is now the practice, occupied a part of the port side abreast the main hatchway. The companies were berthed as follows:—On the starboard side forward was A, followed by F, which occupied the space abreast the main hatchway, and farther aft were the band and drums. On the port side forward was B Company, followed by K, which occupied the space up to the Hospital bulkhead; D Company was in the centre of the vessel in front of the main hatchway, between K and part of F. The women and children were in the after part of the deck.

On the morning of August 22, a man of F Company, who had embarked on the morning of the 21st, and been employed during the day in assisting to get the baggage on board, was attacked with cholera; he was landed immediately, and died in a few hours. Though the disease had been at Gibraltar for a month previously, no case had occurred in the 9th Regiment, nor in the barracks from which they came, up to the time of their embarkation, and as no fresh case occurred up to the evening of the 23rd the ship then sailed for the Cape, and everything went on well for several days. On the 29th a young child had an attack of diarrhœa, from which it recovered by the 31st. On the 30th another child was affected with diarrhœa, but was well by September 3. From this date the attacks became more numerous, as indicated in the following table:—

Date, 1865.	Ship's position at Noon.		Winds.		Temperature.	Diarrhœa and Dysentery.		Cholera.	
	Latitude.	Longitude.	Direction.	Zone.		Admitted.	Died.	Admitted.	Died.
Sept. 1	22° 1′ N.	24° 35′ W.	N.E.	Slight	78°	—	—	—	—
„ 2	19 52 „	25 38 „	„	Moderate	79	—	—	—	—
„ 3	17 35 „	26 48 „	„	Light	80	3	—	—	—
„ 4	14 51 „	27 8 „	N.N.E.	Moderate	81	—	—	—	—
„ 5	12 16 „	27 16 „	S.E.	Light	82	—	—	2	1
„ 6	11 9 „	27 2 „	E.S.E.	„	83	1	—	—	—
„ 7	10 19 „	27 14 „	„	„	83	—	—	—	—
„ 8	8 51 „	26 12 „	W.S.W.	Moderate	81	1	—	—	—
„ 9	7 41 „	24 18 „	S.W.	„	81	—	—	—	—
„ 10	6 27 „	21 40 „	S.S.W.	Light	80	1	1	2	1
„ 11	5 11 „	20 46 „	Southerly	„	81	—	—	5	5
„ 12	3 51 „	25 17 „	„	„	80	3	—	1	1
„ 13	2 31 „	27 5 „	S.S.E.	„	79	—	—	2	—
„ 14	0 56 „	28 56 „	„	Moderate	80	2	—	—	—
„ 15	1 23 S.	30 8 „	S.E.	„	80	5	—	—	—
„ 16	4 33 „	31 11 „	„	„	79	4	2	3	3
„ 17	7 50 „	30 59 „	E.S.E.	„	80	1	—	—	—
„ 18	10 57 „	30 50 „	„	„	80	1	—	—	—
„ 19	13 58 „	30 04 „	„	„	78½	3	—	2	2
„ 20	16 22 „	29 34 „	„	Light	79	2	—	—	—

Subsequent to September 20 no one was attacked with bowel complaint or cholera, and there was no death after that date. The ship reached the Cape on October 9.

The provisions on board the *Renown* were all of excellent quality. A quantity of water had been taken on board at London, and some at Gibraltar, which was stowed partly in casks and partly in tanks; and though that in the casks was somewhat coloured by them, yet it was considered good. There was a distilling apparatus on board capable of making 500 gallons of fresh water daily, and from the time of the appearance of the cholera, water from this only was employed for cooking and drinking. The cargo consisted of a general assortment of goods for the Indian market, with iron, and shingle mixed with sand, for ballast; under and around the main hatchway there was a quantity of the latter, which, when I was on board the ship in Algoa Bay in November, was damp, but did not present any trace of mud mixed with the sand. Unpleasant odours from the hold were not complained of during the voyage. After cholera appeared the people were kept as much as possible on the upper deck during the day, and every means employed for ventilating the berth deck as freely as possible, and, as the weather was fine throughout, all the ventilating apertures were constantly open. But for the care taken with these points many more cases might have occurred.

As regards the immediate cause of the cases in the *Renown* the following facts are material:—It will be remembered that a man of F Company, which was berthed alongside the main hatchway, was attacked the morning after he embarked, and sent on shore at once. The next cases were those of another

man of the same company and of a child who was accommodated in the women's berth at one side, but abreast a small scuttle which led down to the after hold, which was occasionally open. This was the child of a sergeant of F Company, who, with his wife and another child, had been attacked with dysentery on September 3. The attacks and deaths occurred in the different companies, and among the women, children, and crew, as below:—

	Attacked.		Died.	
Company, etc.	Dysentery and Diarrhœa.	Cholera.	Dysentery and Diarrhœa.	Cholera.
A Company .	—	—	—	—
B „ .	1	1	—	1
D „ .	4	—	—	—
F „ .	4	10(c)	—	7(c)
K „ .	3	2	—	2
Women . .	3	1	—	1
Children . .	12	2	3	2
Crew . .	—	2	—	2

Bearing in mind the position of the different companies, and of the women and children in the ship, and the fact that the first case in the regiment and ship was a man of F Company, which subsequently suffered most, and that the others were affected nearly in proportion to their proximity to the hatchways, it is pretty clear that emanations from the hold were instrumental in developing the disease. The crew were all berthed in the poop or forecastle, which did not communicate with the hold. Of these, the Surgeon, a man of broken-down constitution, and one seaman, whose duties required him to be frequently near the hatchway, or in the hold, were the only persons attacked with cholera, both of whom died. To complete the history it may be added that the men sick of cholera were treated in the Hospital, the women and children in the women's berth. The bodies of those who died were removed on deck at once, and buried soon after, and their bedding and clothing thrown overboard. The bedding and clothing of those who recovered were freely exposed to the air for some time before being used again.

The *Renown* was placed in quarantine on her arrival at Cape Town, and a few days after left for Saldana Bay, where the troops were disembarked, and the vessel thoroughly fumigated and whitewashed, and the bedding used by the troops destroyed. Towards the end of October she proceeded to Algoa Bay, where she arrived on November 1, still in quarantine, and anchored three miles off Port Elizabeth. There had been no case of cholera or bowel complaint among the crew since the troops disembarked. On November 8 she was admitted to pratique, and on the 9th the head-quarters of the 96th Regiment embarked, and the vessel sailed the same afternoon for Bombay. On November 12 one of the 96th, who had had slight diarrhœa for some days previous to embarkation, was attacked with vomiting and purging, the evacuations being like rice-water, but being seen to immediately, collapse did not ensue. The man slept on the port side near one of the hatchways, a place clean and well ventilated. There had been one case of a similar nature, but with some collapse, on shore at Port Elizabeth on October 30.

(Corresponding details were given for a number of other ships, both in the Atlantic and Indian Oceans, which we have been obliged reluctantly to omit for want of space. After these, the author, in the original paper, sums up the evidence as follows.)

If, now, we analyse these details, we find that, in the Atlantic, the *Apollo* in 1849, the *Renown* in 1865, the *Windsor Castle* and *Lord Warden* in 1866, left places where cholera was prevailing when they sailed, and all of them immediately previous to, or soon after, going to sea, had one or more cases of this disease on board. After being at sea for some time with few or no attacks, these again became more numerous, and after a while ceased. In the *Apollo* and *Renown* there was a second outbreak; and in the *Jumna*, in 1867, which had not come from a place where the disease existed, her first case was experienced at sea, in nearly the same latitude. The *Windsor Castle*, again, had another case after she was far to the east of the Cape of Good Hope. In the Indian Ocean, the *Gertrude* and *Oriental* in 1859, the *Queen of the North* in 1864, the *Salamanca* in 1865, and the *Durham* in 1866, all left places where cholera existed at the time, and all of them experienced attacks at sea at varying intervals after leaving the land. The *Gertrude* even had two deaths to the south of Mauritius.

We can now examine whether the positions in which these ships experienced their outbreaks agree with those which from other data I have assigned to the cholerific waves proceeding from the southward.

When the *Apollo* left Cork, Ireland was under the epidemic of that year, though the second year of the wave there. The next wave, on June 27, would be met with in latitude 37½° N., on the meridian of 14½° W.; and on that day this ship, in latitude 35° 21′, had the first case for nine days, and an outbreak commenced which lasted till July 23, after which there was a respite for six days. The following wave, on the meridian of 33° W., would be met with in latitude 5° S., on July 27; and it was after passing this point that the *Apollo* had her second outbreak, commencing on July 29.

The *Renown* sailed from Gibraltar when the Mediterranean was under the first year of the wave. After the first case, she had no more until she was at 12° N., when the disease commenced again, and continued until she reached 2½° N., when it ceased, and did not recur until three days after, when she got into 4½° S. Having a strong trade at this time, her daily runs were much greater than those of the *Apollo*. The *Renown* would enter the advancing wave on September 15, when its position on the meridian of 30° W. was about 1¼° S.

The *Windsor Castle* and *Lord Warden* both sailed when England was under the influence of the first year of the wave of the epidemic of 1866. In their progress south, both encountered a fresh wave a little to the north of the Cape de Verd Islands. On August 6, when the former was in this vicinity, the wave on the meridian of 22° W. would be at 18° N.; and on September 15, when the other was passing the wave on the meridian of 20° W., would be at 20½° N. The outbreak in the *Windsor Castle* commenced about 10° N., within the limit here given for the advancing wave, and that in the *Lord Warden* in 23° N., only a short distance outside its estimated position. In the *Windsor Castle*, the last attack was on September 15, when she was in 37° 20′ S. and 38° 41′ E., the preceding case having occurred twenty-six days before. At this point she was within the influence of another wave, which, on the meridian of 39° E. on that date, would have reached 31° S., and of which distinct indications were soon after experienced all along South Africa.

The case of the *Jumna* differs from that of the other ships already mentioned, in that no cholera existed in England when she left, nor at St. Vincent when she touched there; and the first indication of cholera occurred in her at sea. On July 17, when the attack commenced, the estimated position of the advancing wave on the meridian of 14½° W. was 3° N., little more than 200 miles from her place at noon on that day, and choleraic diarrhœa continued to manifest itself until she reached 19½° S., ten days after. It will here be observed that the *Apollo*, *Renown*, and *Jumna*, in years with odd numbers, met these waves in nearly the same latitude, while the *Windsor Castle* and *Lord Warden*, in even years, met with them considerably further to the northward.

In the Indian Ocean, the *Gertrude*, soon after leaving Calcutta, encountered a wave on June 1 at 15° N., near the meridian of 90° E., and the first few cases, up to June 16, occurred in this. The next case manifested itself on the 20th in 11° S., the estimated position of the approaching wave at that time being 13° S. on the meridian of 80° E., or 120 miles only from her actual place. Under this wave, too, she had two cases to the south of Mauritius. The *Oriental* encountered the same wave on June 30 in about 18° N., and in her the outbreak commenced at once.

When the *Queen of the North* left Bombay cholera was pretty active there, and she showed traces of it on her way south. On February 7 she reached the estimated position of an advancing wave in 4° S. and 80° E., and on the following day an outbreak of extreme violence commenced, there having been 37 attacks among 298 persons on board in the next seven days, of whom 24 died. The following year the *Salamanca* left Kurrachee, where cholera was prevailing at the time, and she had some cases immediately after. On May 10 she would meet the same wave mentioned above in connexion with the *Queen of the North* in 16° N., and the following day she experienced a considerable increase in the number of cases and of choleraic diarrhœa.

The *Durham* had left the land about ten days before the first case presented itself, and the second occurred ten days later, when on the equator, and five other cases proved fatal in the next twelve days. There were three cases, however, which recovered, and a large number of choleraic diarrhœa during this period, the dates of occurrence of which are not available, so that the exact point where the outbreak became intensified cannot be made out satisfactorily. The estimated position of

(c) Including the first case at Gibraltar.

the wave the *Durham* encountered about this time was on March 21, in latitude 3¾° S. on the meridian of 90° E.

The manifestations of cholera under these different waves were not confined to the ships mentioned in connexion with them, but many traces of their influence were found elsewhere as well. The *Gertrude*, though in the same wave as the *Oriental*, had her first case much nearer to the line, and the activity of the causes of the disease on shore corresponded with this, as both in Ceylon and Madras it was much less severe than a few months before, while on the west coast of Hindostan, and still more on the east coast of Africa, it was then very prevalent. As already stated, the *Gertrude* had two cases to the south of Mauritius. There was a considerable outbreak in 1859 at Mauritius; there were also some indications of cholera in the Cape Colony, and a severe epidemic at Zanzibar, commencing in December, clearly showing that the cholerific influences were felt over a very large area, and among communities quite independent of each other.

The series of outbreaks, of which that in the *Queen of the North* to the south of the line in 1864 was the earliest, was a very striking one. The epidemic, as shown above, was followed by that of the *Salamanca* in latitude 14° in May the following year. The same year a very severe epidemic ravaged the district on the west coast of Hindostan from 10° to 12° N., which commenced in May. In the same latitude, on the west of the Arabian Gulf, H.M.S. *Penguin* captured some slave-dhows with cholera on board, and one of her people was attacked in April and another in May. The disease also commenced at Aden in May, and subsequently extended into Laheg. At this time, too, it was prevalent nearly as far south as Zanzibar. To the west of Africa, in the middle of the Atlantic, the *Renown* met the same wave on September 16 in 4½° S., and in 1866 the *Windsor Castle* and the *Lord Warden* ran into it to the north of the Cape de Verd Islands. In the course of 1866, too, cholera prevailed under its influence in Abyssinia, at Mecca, and along the Euphrates as far as Turkistan; and in 1867 there was a severe outbreak, extending from Constantinople, through Southern Europe, Sicily, and Malta, embracing Tripoli, Tunis, and Algiers in Northern Africa. The influence of this wave was experienced in England and north of France in 1868 in a manner sufficiently decided to leave no doubt of its presence, though the form of the disease was mostly simple cholera, and the resulting mortality was not so greatly increased as to entitle it to be designated an epidemic.

In like manner, the case in the *Newcastle* and the outbreak in the *Jumna* can be traced from the Cape. In February, 1865, there was a considerable number of severe cases of sporadic or common cholera, and a good deal of choleraic diarrhœa at Cape Town. In October there was a case of ordinary cholera at Port Elizabeth, and another in the *Renown* at sea on November 12. There were also several cases in coolie ships in quarantine at Mauritius in 1865, and two cases on shore in September. In April, 1866, the *Newcastle* had one case midway between Cape Town and St. Helena, and in the end of 1866 cholera became epidemic at Rio Janeiro. In 1867 H.M.S. *Jumna* had an outbreak in the eastern part of the Atlantic, near the African coast, and in 1868 the further progress of this wave was indicated by the epidemic which commenced at St. Louis on the Senegal in the beginning of December.

The last wave the facts given above embrace is that which was first indicated by the death of the seaman of the *Windsor Castle*, to the south-eastward of the Cape, in September, 1866. In October of that year, a lady, who had not been out of the colony, died in Cape Town of cholera, and in December choleraic diarrhœa suddenly showed itself all over Maritzburg, in Natal; and in February, 1867, choleraic diarrhœa became very common at Cape Town and Port Elizabeth. In January, 1868, cholera appeared at Buenos Ayres and Monte Video as an epidemic, showing, as in the instances previously given, that the cholerific influences were very widely spread, and were progressive, and that the aggravation of the disease in ships was merely an indication of a cause or series of causes of general operation.

Riberi Prize.—For the third triennial reward of this prize of £800 the committee has received 150 manuscript or printed memoirs, from more than fifty competitors, so that its labours will prove to be no sinecure. The fourth award is to be made in 1874, the subject being "Nervous Diseases in general, and some of them in particular." Manuscripts or works printed during 1871-73 in the Latin, Italian, or French languages are to be deposited at the Turin Royal Academy of Medicine by December 31, 1873.

MIDWIFERY NOTES.

By FRANCIS R. HOGG, R.H.A.

(*Continued from page 75.*)

If a case goes wrong, a man clever at the forceps knows no fear; but supposing he is (as, unfortunately, I am) a bungler, never attaining average proficiency, instrumental assistance may be deferred till too late; a more serious operation has to be performed, whereas a few hours before one far simpler would have sufficed.

Case 5.—A small, deformed, bull-necked primipara, aged 37, during labour had six epileptiform convulsions; the os rigid' undilatable, gradually yielding to tartar emetic and chloroform; face presentation in a pelvis laterally contracted. After fourteen hours, dating from commencement, Dr. Bone and myself, by means of the blunt-hook fixed into fœtal eye, got down the head, in two hours the shoulders, and eventually a large, gas-distended, putrid fœtus; the placenta removed piecemeal. Early in the labour, her abdomen had a singular globular appearance, and was uniformly blue. Result, a good recovery.

Case 6.—Called by another Medical officer; find prolapsed funis, rigid os, hand presentation in small pelvis. Under chloroform two hours, feet brought down, head jammed, craniotomy necessary. Did very well four days, when rigors set in, and death unexpectedly took place.

Case 7.—Rheumatic primipara, aged 36, had a good easy labour, but the sixth night, although secretions were satisfactory, shivering and præcordial spasm came on, quickly subsiding under local hot applications. Next morning, looking and stating she felt much better, at eleven o'clock wished to get up to gain strength; at half-past two suddenly died. Doubtless a case of pulmonary thrombosis, but reasons prevented a post-mortem examination taking place.

Case 8.—Aged 33, married seven years, had four children; spent six years in India, there suffering from Delhi boils and rheumatic fever. At Portsmouth, on a hot summer's day, when quickening at four and a-half months with fifth child, fell insensible, paralysed right side with aphasia. Albuminuria; aortic valvular disease noticed and treated. Labour peculiar; the pains vigorous and rapid, yet she could make no sound. The child, after a few weeks, died of convulsions. She lingered on a few months.

Case 9.—A pallid soldier, servant, aged 26, with consumptive father, mother, brothers, and sisters, needs must marry a buxom handsome girl, aged 26, whose mother was bronchitic, she herself having easily undergone variola and measles. Through carrying a pail of water she aborted three months after marriage. Three months subsequently, without any particular reason, he was suddenly paralysed—loss of power of left arm, left leg; aphasia—but under three months' Hospital treatment, the condition improving, enabled him to return to easy duties. Immediately, though her husband continued a pitiable object, only just able to crawl about, without even sufficient prehensile power to hold a plate, the wife conceived. Excepting post-partum hæmorrhage, the labour natural; the child, though felt up to the last moment, a still-born girl, affected with double talipes, had the great-toes turned up, the legs crossed, the thumbs turned in, and other indications of muscular spasm.

Case 10.—Aged 24; small pelvis; states that one still-born and three living children have with difficulty been instrumentally delivered, the placenta on each occasion adherent, considerable hæmorrhage, great debility, tedious recoveries. During pregnancy menstruates up to quickening; experiences no particular sensations; the breasts never alter. Cannot nurse. Now four months pregnant. Premature labour will be induced in the seventh month, but the previous history raises the anxiety as to firmer placental adhesion, greater hæmorrhage.

Case 11.—From the seventh to the ninth month of third pregnancy large bumps formed on the head, spontaneously subsiding two days after delivery.

Case 12.—Married in 1860 a syphilitic (subsequently paralysed) husband; soon fell pregnant; uterine hæmorrhage occurring frequently; forceps delivery; putrid child; adherent placenta; hæmorrhage. Milk fever followed by scarlet fever. Pregnant again in 1863; still-born child; none since. From that time to this—eight years, in fact—milk has remained in the breasts, the secretion at each menstrual period excessive. A worthy chemist, with a soul far above pematum, "Bunter's nervine," and "Stedman's powders," sagaciously advised her to go out eternally wet-nursing. Why is it the gentlemanly

young men at Weiss's shop are not similarly consulted in surgical cases?

To the theorist of the library or the laboratory these laconic notes are unsatisfactory—too much of the "Alfred Jingle" style; but the busy Practitioner, understanding the never-ending wear and tear of daily work, knows fully how little leisure can be spared for elaborate case-taking.

THE

PREPARATION AND PROPERTIES OF THE VARIOUS KINDS OF CHINESE TEA.

By F. PORTER SMITH, M.B. Lond.

(*Concluded from page* 96.)

It will be remembered that the leaf used in the making of Congou tea (black) is first dried in the sun, and then compressed, so as to part with any superfluous moisture. This must lead to a concentration of the principles contained in the leaf. The tea-leaf is stored in bags, and generally subjected to a preliminary "firing" in addition to the formal "firing" previously described, in view of any delay which may occur during the collection of such large quantities as are necessarily prepared at one time for the foreign market. Certain chemical changes tending to the oxidation of the chemical constituents of the natural leaf must take place in the repeated exposure to a moderate heat, and during the storing together in loose heaps of the half-dried leaf freely exposed to the atmosphere. Nothing like fermentation ever takes place, as this would issue in the destruction of the leaf, which is carefully kept from becoming heated or mouldy during the process of making up the whole "chop." A kind of maturation occurs, issuing in the formation of more extractible matter, capable of solution and circulation. The final "firing" has something of the same effect upon the tea-leaf as the kiln-drying has upon the germinating barley passing into malt—it fixes the composition of the tea-leaf, and renders any further change as unlikely as undesirable. The tea-leaf is then at its best, and any idea of ripening upon the voyage is simply absurd. It follows from the low temperature at which the tea is dried that no empyreumatic products can be met with in properly prepared tea. And yet there is a degree of austerity produced in the ordinary black tea which causes it to produce nausea, sickness, and diarrhœa when taken in the shape of a strong infusion prepared from the new spring tea just ready for the voyage to Europe. This is especially the case with badly-secured leaf, which may be assumed to have been purposely exposed to a high temperature in order to fit it for the foreign market. All or most of these effects pass off by the time that the tea reaches the foreign consumer. The more stable the tea, the better it will turn out. Any change on the voyage is for the worse, according to the experience of the most competent judges. Thirty pounds of the green leaf produce from eight to ten pounds of the sun-dried leaf. One hundred pounds of the sun-dried leaf lose eight pounds of weight in "firing," and produce ten pounds of stalks, fifteen pounds of tea-dust, and the rest good marketable Congou tea. New tea produces in China laxative effects upon foreigners, as prepared for exportation. This effect is not permanent. As a rule, black tea, under the same circumstances, has a decided diuretic effect, even in hot weather, when perspiration is abundant. It excites in many a strong craving for food, and causes a degree of sleeplessness. The narcotic effect of new tea is asserted by Johnston in his "Chemistry of Common Things," but has never been noticed. The large proportion of nitrogen in tea, amounting to nearly 6 per cent., prepares us to find powerful properties in it. That tea is a stimulant there can be no manner of doubt. This probably depends upon the presence of the theine, a soluble crystalline substance, which resists the moderate temperature at which the leaf is dried. The peculiar taste of green tea falsely suggests the presence of more than the usual amount of that astringent principle which, in the shape of tannin, is present in about equal quantity in both the black and green tea. The properties of tea as an astringent are turned to account by the Chinese, who prescribe it in diarrhœa when acidulated with vinegar. Cold tea, to which a small quantity of dilute sulphuric acid has been added, is an excellent diet-drink for use in hot weather when there is a tendency to diarrhœa. That the use of tea to a large extent has a peculiar effect upon the nervous systems of both animal and organic life there can be no doubt. This is the reverse of a sedative influence. Some of the craving of the Chinese for opium is connected with their incessant drinking of tea, especially upon an empty stomach. The effect of tea is to excite, and this property may be turned to excellent effect in cases of opium-smoking, and in uræmic poisoning. If good new Congou tea be given in the latter disease, there is the additional advantage of the diuretic effects of the infusion. In all cases in which coffee is most to be prescribed, tea is much more convenient, accessible, and powerful. It is obvious that the high temperature at which coffee berries are roasted must be fatal to the presence of much caffeine, a principle identical with theine. This latter substance has been recently proposed by Mr. Lewis Thompson (*Medical Times and Gazette* for February 10, 1871) to be brought into use as a tonic remedy in typhoid diseases, neuralgic affections, and in senile gangrene. Large quantities of weak tea, however, tend to the occurrence of sciatica and other forms of neuralgia. The experiments of Peligot seem to prove that, as might be assumed from the presence of so large a proportion of nitrogen, tea is, as the Frenchman said of the coffee, both "meat and drink." Old women who boil their tea-leaves are right, for they thereby extract much more of the theine. The antidotal power of tea, so strongly insisted upon by the Chinese, is worth a trial, especially in cases of poisoning by tartar emetic or corrosive sublimate. A statement appeared in an English paper, some few years ago, to the effect that tea is an aphrodisiac, and that its extensive use partly explains the fertility of the Chinese population. It is remarkable that, as the Chinese have made the subject of aphrodisiacs a very profound study, no reference is made to this effect in Chinese Medical works. As Liebig has suggested that theine goes to make taurine, a biliary substance, it is possible that the spermatic secretion may be increased by a course of strong tea. Of the effect of tea upon the menstrual secretion the Chinese have no doubt. It may be that in this way the female population of Great Britain have actually hit upon a perfect cure for their "irregularities," as they are called in quack advertisements.

The use of tea in certain forms of dyspepsia is a common Chinese practice. If taken as a plain drink between meals it seems to give tone to the stomach. It is obvious that the "tea" of our domestic tables, a compound of milk, sugar, and much water, is not the article intended to be spoken of in these pages. The sooner *infusum theæ* is placed in the British Pharmacopœia as a recognised article of the Materia Medica, the more likely are we to place its employment upon a scientific basis, and thus to rescue a very important drug from the contempt of familiarity. A tincture of tea is not a desirable preparation, as theine is only sparingly soluble in cold alcohol. An extract of tea, carefully prepared, would be an excellent preparation for trying the effects of tea in the delirium of fever and the stupor of intoxication.

The Chinese are under the impression that foreigners are compelled by some instinctive necessity to send and buy the tea of the land of "the Glory of Summer." Of the influence of tea upon the sobriety of our countrymen and countrywomen there can be no doubt. When our poor people cease to waste their tea-leaves, and begin to eat them as a dish, like the people of Mongolia and Siberia, another important step will have been taken in the direction of completely utilising the properties of this most important article of diet and Medicine.

Brick tea might economically be introduced into use on board our ships of war, as it is cheap, portable, good, and much less perishable than ordinary tea.

Hackney District Board of Works.—Dr. Tripe, the Medical Officer of Health, reported to the Board, at their meeting last week, that he had received information that no more patients were to be admitted to Mrs. Gladstone's Small-pox Hospital in Brook-road, Clapton, and that the establishment would in all probability be closed in a fortnight, and the iron house erected in the rear of the premises pulled down. There had been seventy-six deaths in the district during the fortnight; eleven had resulted from small-pox, against twenty-six in the preceding fortnight.

Poplar and Stepney Sick Asylum District.—The Board elected under Mr. Gathorne Hardy's Act have constructed a large building for the sick poor of Poplar and Stepney in Devons-road, Bromley. The officers and clerks have been appointed, and the building was opened on Thursday. This asylum is for the accommodation of the sick, bedridden, and infirm of the Poplar and Stepney district. It is certified to contain 572 patients' beds. Fever and small-pox cases are not to be admitted.

YELLOW FEVER IN THE RIVER PLATE.

By WM. NATHANIEL HIRON, L.R.C.P. Lond., M.R.C.S. Eng., L.S.A.L.;

Admitted to practise in Monte Video; ex-Surgeon-Major Argentine Army on the Medical Staff of the Popular Health Commission during the Epidemic.

(*Concluded from page* 126.)

Two ideas appear to me essential in treating yellow fever: the fever must be diminished, and the essential poison of the disease neutralised. Two safe and apt remedies are at hand—purgatives and quinine, usable together, and not opposed—regarding the disease in this light.

Vomitives are very seldom necessary or advisable in this disease; the tendency to vomit is generally to be repressed. But if there are evidences of stomach oppression, and quite in the early period of the disease, the remedy is certainly useful. In the early period purgatives are absolutely indispensable; there is always constipation and fever, and they must be pushed till the fever abates.

The distressing headache is signally relieved by pediluvia of hot water and mustard, followed by the employment, constantly, of an evaporating lotion. The pain in the back is alleviable by sinapisms, and this and the general aching of the frame by the use of stimulating liniments.

Mercury is useful as a purgative and alterant of the secretions of the bowels; its constitutional action has seemed to me quite disadvantageous. Of course we have never employed general bleeding; I have cupped over the loins in urinary suppression, but without advantage; leech-bites give trouble when the second stage comes on, from the exudation of blood.

During my attendance at the lazaretto I was able to appreciate the marvellous results in restraining hæmorrhage of the ergot of rye. Given in doses of the powder of five grains every hour, or in pills, it controls most perfectly the hæmorrhages, and even the black vomit. I have not seen this remedy mentioned in any treatise on yellow fever. It is most valuable, and its employment a true advance in the treatment of the disease.

Baths of all kinds gave me no results; nevertheless, hot hip-baths in the urinary suppression should always be tried. The wet sheet was often agreeable to the patient, but it did not answer my expectations in the general result. The cold douche in the lethargic state also disappointed me.

Quinine was administered by an empiric in clysters, and, if we bear in mind that the autopsies showed the large intestine to be unaffected, are theoretically correct. However, as I never employed solutions of quinine, the stomach nearly invariably tolerated the remedy. My plan was to give ten grains of quinine, made into four pills, with extract of gentian every night and morning, at intervals of twelve hours between each dose, employing neutral saline purgatives between times, and combating symptoms as they arose.

Vomiting was often very difficult to allay. Chloric ether succeeded best, and ergot if there was black vomit. Hiccough was often most troublesome, and generally of fatal augury. Opium controlled it best in full doses. The gastric oppression was somewhat relieved by the use of poultices of linseed-meal and mustard. The urinary suppression was the intractable and fatal symptom. In one of my cases black vomit ceased, and the urine returned, after two days' absence, during the use of the ergot of rye. I have heard it has also returned during that of nux vomica, and also of phosphorised glycerine. Perchloride of iron failed, to my knowledge, in producing it. Acetate of lead and opium in pills were spoken well of in the hæmorrhages. I never found the ergot to fail, if it were good, and so was satisfied with it. I believe chlorine solutions and carbolic acid were employed internally; I do not know with any specially good result. The digestive functions were naturally sufficiently impaired, and great care was necessary with diet during convalescence. At first, in the early part of the disease, an absolute diet seemed best, and plain barley-water the most suitable beverage. I have said that yellowness of the conjunctivæ was an early symptom. It seemed to me the earliest most reliable sign; the next albuminuria.

Gastric irritability was very marked. Palpation of the epigastrium so easily produced vomiting, that it was always well avoided. I believe that when quinine has been previously used in the treatment of "specific" yellow fever, it has been used too exclusively. If the stomach evidently requires unloading, it must be unloaded—just as you would unload it in a tropical fever, if it were indicated—before you give quinine. The same holds good of purging, with this advertence, that as yellow fever is a rapid disease you cannot wait until you have entirely subdued the feverishness before administering the quinine, but must be content to begin when you observe you have made an impression by your evacuant plan. As you can cure malarious fevers without quinine, so you may cure yellow fever of the specific type without it. The Paraguayans cure their milder paludals with such simple treatment as would be adopted in a common cold—in fact, they call their milder paludals colds. But just as a tropical fever is pernicious, so is quinine valuable.

There is question as to how far all these fevers are the product of meteorological, topographical, or geological conditions, and whether they are merely expressions of the effect of climatic or weather peculiarities, or depend upon some special terrestrial emanation, or are due to local meteorological influences upon vegetable and animal decomposition; and as to what relation typhus and typhoid fevers bear to the severe tropical fevers; and as to the action of quinine, whether antiseptic or neurostenic. Fevers being diseases which affect the whole system, naturally will require numerous remedies; and where the nervous implication is the eloquent and serious expression, neurostenics claim a first place. I enclose extracts from the *Buenos Ayres Medico-Chirurgical Review*:—

"February 8.—In the early part of the present fortnight information was given by Dr. Larrosa that in Bolivar-street there had arisen some cases of yellow fever, due, doubtless, to the special pathological constitution, to the indifferent hygiene of the houses, and to the great heat of the weather. The Municipal Council of Health caused the house to be disoccupied immediately, burnt some of the furniture, and disinfected the remainder and the house itself. The disease does not seem to have made much progress, and appears to be stationary in the district where it began.

"February 23.—The small epidemic of yellow fever diminishes notably in the district where it began, although a few cases present themselves in the northern and western districts of the city. The connexion of the cases (of many of them) in the other districts with those in the parish first infected has been clearly proved. However, some cases do not show any such connexion, so we keep a prudent reserve about the future of the epidemic. The fact of many being saved in this epidemic, and the spirit of contradiction which exists in all, has caused that some have denied that yellow fever exists; but it is not the less certain on this account, and has made somewhat more than 200 victims. The fever contracted in assisting the sick has carried off one of the most notable Medical men of the Republic.

"March 8.—Yellow fever has much increased, particularly in houses where many persons are congregated together, especially amongst Italian emigrants. 800 have died of the fever in the last fortnight, the Italians in a proportion of 70 per cent. of the deaths. The *Nacion* newspaper has commenced the crusade against the Riachuelo, our little Ganges—a focus of corruption which infected the atmosphere with miasmas, favouring and feeding the development of diverse epidemics.

"March 23.—This fortnight's review offers us a very unconsoling picture. Now it is not only in certain districts that the fever exists. Without much difficulty, it has advanced until it has dominated completely the population, and its victims have fallen by hundreds daily. The atmosphere we breathe is completely infected. The daily statistics are very incomplete.

"April 8.—In the past fortnight the epidemic has been general; the whole of this extensive city is invaded. The funeral *cortéges* pass constantly through the streets. The exodus to the country is considerable. During certain hours of the day, and principally at nightfall, the closed doors and solitude of the streets give this great city a mournful and sepulchral appearance. There have been days in this fortnight when the number of deaths from the fever has amounted to 700.

"April 23.—The yellow fever has acquired colossal proportions, and has taken possession of all quarters of the city. All the well-to-do families take the efficacious precaution to leave for the country. We should further this emigration amongst all classes of society by all possible means.

"May 8.—The sanitary state of the city is more agreeable this fortnight, for the epidemic beats its retreat notably. Thirteen worthy and ever-to-be-remembered colleagues have succumbed to the cruel influence of the epidemic now disappearing.

"May 23.—The epidemic undoubtedly bids us farewell, since, in spite of the large number who return from the country, the death-rate does not increase, and there are very few new cases."

Dr. Aguirre, writing in the *Review* of March 23, says:—"We have yielded to the temptation to make some experiments with the sulphate of quinine, and repentantly have we recognised with how much truth others previously had prescribed it, for given in the first period it does not abate the inflammatory symptoms, but increases the agitation and anxiety; given later and in larger doses, it produces a hypostinisation which predisposes to irremediable adynamia."

Dr. Sturrios, writing in the *Review* of May 23, says:—"We give a singular case of yellow fever. A patient, who had passed through all the stages of the disease, and was still in the third, presenting hæmorrhage from the mouth and much epigastric anxiety, suddenly one night was seized with tonic contractions of the muscles of relational life (voluntary meant), accompanied by pains and parodying tetanic convulsions. The first fit lasted six hours, causing the patient to suffer cruelly. On the following day the attack repeated itself, almost at the same hour, threatening seriously the life of the patient, for the contraction of the muscles of the chest rose to such a point that the agony of asphyxia appeared imminent. This attack lasted four hours. A third access repeated itself the third day, and was like the second; it lasted three hours. The fourth and last fit was very short and mild. Quinine was given as an antiperiodic until cinchonisation was obtained, it being then that the attacks disappeared; chloral and syrup of belladonna were used at the same time."

Dr. Reynal, parochial Medical Officer of the Piedad District, wrote to the *Republica* newspaper in April, stating that he had only lost ten patients out of 140 in using quinine in solution in large doses. He states as follows:—

"Computing the number of patients treated by a general method with those who had been saved thereby, I did not hesitate to abandon such plan, and adopt as basis of my treatment the sulphate of quinine. In a few days the result justified my resolution, since I found that, of 140 patients to whom the remedy had been given in the first period, and many in the second period, I only lost ten, and even those not in spite of the quinine, but on account of its being badly given. I continue employing it, and with the same result. I do not make any pretension to offer this as a novelty, nor, still less, as an infallible remedy, but as being more certain and based upon analogy, facts, experience, and judgment. My plan of administration is as follows:—Sulphate of quinine grs. xxx., water ʒiv., citron-water ʒj. Of this I give two tablespoonfuls every two hours until cinchonisation supervenes. I only precede the administration of the remedy by a vomitive or purgative if there are manifest signs of gastric and intestinal embarrassment; and when such signs are wanting, as is usual in the invasion period, I do not lose time, but give the quinine immediately. Four-and-twenty hours do not pass before the cinchonism manifests itself, and in a few hours the headache is replaced by heaviness, the fever ceases, and there only remains the prostration consequent upon the medication and the battle between the system and the disease. In mild cases, a vomitive, a purgative, sudorifics, or even the sole powers of the constitution itself, are sufficient; but, at first, who can anticipate a benign disease, and say, so far and no more shall the fatal essence of the miasma reach? So I do not hesitate, but to all, without exception, give quinine, harmonising the dose with the pronunciation of the fever. The results obtained authorise me to recommend quinine as almost infallible in the first period, doubtful in the second, and entirely useless in the third."

I preferred to give quinine in pills, and obtained my object by exhibiting it in such form. The stomach is so affected in the disease that it should hardly tolerate such a nauseous bitter draught as a solution of quinine. As I constantly gave purgatives, I did not employ quinine in enemas, as I have said such treatment was pursued by an empiric who had seen this method adopted in countries where yellow fever is endemic. I believe pretty good results followed this person's treatment.

It seemed to me that the contagiousness of the fever might be assumed to be a local infectiousness, existing in the place where a patient lay. The importation of the disease seems certain. Albumen generally existed in the urine, and suppression of that secretion was a frequent and almost invariably fatal symptom.

The origin of the term "mal de Siam" for this disease is thus accounted for by the *Siglo Medico*, a Spanish Medical journal:—That at the end of the seventeenth century three vessels (one called the *Oriflamme*) arrived at Martinique from Siam, and that coincidently with the arrival of these ships a disease, of a severity unknown previously, sprang up. But it asks the question—"Did the ships bring the disease with them or get it in this port?" The matter has been explained by averring that the *Oriflamme* previously touched at a Brazilian port, and there took the disease aboard. But the writer of the article referred to says this is not proved, and believes that the arrival of unacclimatised persons at the Antilles in these ships was the determining cause of the appearance of the disease. It is well to bear in mind that Martinique and Siam occupy analogous latitudes in the different hemispheres, and that any disease brought by the vessels probably might have encountered favourable conditions for its development, and yet it may not have differed so much from any endemic disease, except in the element of deadliness; but this very serious difference makes it appear a new disease, and really causes it to merit such distinction politically.

The Medical Officer of the port of Monte Video made his public statement at the commencement of the epidemic, that the epidemic must be a bilious remittent on account of a similar announcement by a Brazilian Medical man who wrote from Asuncion, Paraguay, to that effect, and, I believe, based his opinion on the beneficial results which followed antiperiodic treatment, to the efficacy of which Dr. Newkirk, a Canadian living in Asuncion, gave me his personal testimony afterwards.

In Corrientes the same phenomena were observed as here; a large part of the population fled, and of those who remained a great proportion died, one-fourth of the population remaining. The poverty in which so many working families will be plunged by the loss of their chief supports must naturally be very great, and the number of orphans to provide for be very large. The neighbouring republics of Chili and the Banda Oriental have come splendidly to the help of the desolated city, as also has the Empire of Brazil. Since men suffered to a much larger extent than women, and both than the younger members of families, it is natural to anticipate distress of a considerable amount in consequence of the epidemic; fortunately, our winters are not of the severe northern type; frosts are neither frequent nor severe, and snow unknown.

The epidemic of this year does not seem to be in the least connected with the few cases that occurred in one establishment during the summer—or, rather, autumn—of the previous year. That outbreak appeared to extinguish itself in the *locale* where it sprang up; it was notoriously imported from Rio Janeiro. The epidemic was notified this year as springing up in an opposite quarter of the city. There is also no doubt that the first yellow fever appearing in Paraguay, twelve months before the great outbreak, was connected with Brazil. Where did the Rio epidemic of 1869-70 arise?

The winter temperature in Buenos Ayres should be an extinguisher to the yellow fever poison, and, it is to be hoped, will prove such, as it has done previously. Buenos Ayres is favourable enough for epidemics from its insanitary conditions, but it is probably not worse than most New-World cities, where sanitary progress is generally the last point thought of.

Buenos Ayres.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

THE MIDDLESEX HOSPITAL.

THREE CASES OF STRANGULATED HERNIA.

(Under the care of Mr. HULKE.)

[Communicated by Mr. DAVIDSON, House-Surgeon.]

Case 1.—*Strangulated Oblique Inguinal Hernia—Herniotomy—Sac Opened—Wound Dressed on Lister's Method—Remarkably quick Recovery.*

A LABOURER, aged 50, who had been ruptured for twenty years, and had been in the habit of wearing a truss, was admitted with acute strangulation, of one hour's duration, on January 5, 1871, at 4.30 p.m. The left side of the scrotum was distended to the size of a fœtal head; it was hard and tense; the upper part of the swelling was tympanitic, the lower part dull on percussion. He was suffering intense pain. The House-Surgeon tried the taxis in a hot bath without any impression on the rupture. Half an hour later he began to retch dark bilious fluid; he was tossing about restlessly from the great severity of the pain; he had a small, weak, rapid pulse, and the rupture was sensibly larger. The rupture had

been strangulated on a former occasion, and was then reduced by the taxis under chloroform after the use of ice. He was seen at 6 p.m. by Mr. Hulke, who placed him under chloroform, and tried the taxis for a few minutes, but without avail, and then operated. The external abdominal ring, at which the constriction seemed seated, and some fibrous bands outside the sac were divided, after which, the rupture continuing irreducible, the sac was opened. It contained several feet of small intestine, and some omentum; these were now returned without difficulty. The wound was dressed strictly on Professor Lister's plan, and opium was given. The dressings were removed on the fifth day, when the wound was found soundly healed, and a fortnight after the operation he left the Hospital. The first stool was passed on the eleventh day. Here the very large size of the rupture, the free exposure of its contents by the unavoidable opening of the sac, and the acuteness of the strangulation were unfavourable to the recovery of the patient, while the healthy state of the coverings, undamaged by an indiscriminate employment of the taxis, rendered the wound peculiarly suitable for Professor Lister's mode of dressing.

Case 2.—Strangulated Femoral Hernia of Several Days' Duration—Herniotomy—Sac Opened—Recovery.

A woman of spare habit, aged 60, who had been ruptured fourteen years, but had never worn a truss, was admitted with strangulation of at least three days' duration on February 17, 1871, at 6.20 p.m. She had a tense, hard, globular swelling, of the size of an orange, in the right groin, in the situation of a direct inguinal hernia. A cord-like prolongation extended from it in the direction of the saphenous opening. The skin covering the rupture was red and inflamed, and agglutinated to it, so that it could not be pinched up in a fold. She was very prostrate, had a small, weak pulse, and often retched. The taxis had been very assiduously tried before she was sent to the Hospital. No delay being admissible, chloroform was given, and herniotomy at once performed. The sac had two compartments—one above, the other below, Poupart's ligament. The upper one contained only omentum; the lower included, also, a small knuckle of purplish, almost black, intestine, which adhered to the inner side of the sac, making it impossible to at once reach Gimbernat's ligament in the usual manner. A director was therefore passed upwards along the omentum, and the inner end of Poupart's ligament was divided. Slight compression now partially emptied the gut, and, its adhesions to the sac being separated, it was returned. The omentum, not being much congested, and not thickened, was also reduced; but for this it was necessary to enlarge the opening by notching Gimbernat's ligament. The wound was washed with an aqueous solution of carbolic acid, and dressed with a compress dipped in carbolised oil. Peritonitis ensued. Opium was freely given. The sac and the cellular tissue around it sloughed, and the belly was covered with a large linseed poultice. The bowels were first opened a fortnight after the operation. She was convalescent on March 27; but her final recovery was retarded by a small sinus, which for some time prevented her wearing a truss, and by an obstinate eczema of the leg.

The extreme prostration of the patient, the nearly gangrenous condition of the gut, the sloughing of the wound, and the occurrence of peritonitis, made the prognosis doubtful. Mr. Hulke attributed her recovery to the free use of opium and a strictly simple diet, of which milk formed a principal share.

Case 3.—Strangulated Femoral Hernia of Two Days' Duration—Herniotomy—Sac Opened—Recovery.

A laundress, aged 67, who had been ruptured ten years, was admitted on May 10, 1871, with strangulation. She had in the left crural region a tense globular rupture of the size of a hen's egg. She had been retching frequently for thirty hours, throwing up stercoraceous matter. Her pulse was 104, small and weak. Mr. Hulke at once operated, without further trial of the taxis. The sac enclosed a knuckle of dark claret-coloured gut. After Gimbernat's ligament and the neck of the sac had been cut, a further impediment was found in the transverse band lying just inside the crural canal within the belly. It was divided, and the gut went back without difficulty. The wound was washed with an aqueous solution of carbolic acid, and a compress dipped in carbolised oil laid upon it. It suppurated, but healed kindly, and one month after the operation she left the Hospital wearing a truss. The first stool was passed on the seventh day. Opium was freely given here, as in the other cases.

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Medical Times and Gazette.

SATURDAY, AUGUST 5, 1871.

CHOLERA.

Are we ever to be ringing the same changes? It seems as if it were only yesterday that long lists of deaths from cholera were being issued from the Registrar-General's office every day, in order that the public might know where, and how, and why the destroyer was smiting us. We suppose that with the single exception of small-pox there is no similar enemy with whose tactics we are better acquainted. Keen spies have been busy in the camp every time it has made an invasion, and there are now few of its secrets of much practical value to us which they have failed to elicit. With the knowledge we have, we ought, in our insular position, to be able to look calmly, and without any anxiety for our own safety, upon the advances that cholera may make towards the sea that divides the European Continent from Great Britain. We, at all events, ought to be safe, because prepared. There should be no foothold for cholera on our shores. Let us look back for five years. We had a warning then; we knew pretty nearly as much about the mode in which cholera spreads as we do now. We knew that foul water containing excremental matter, and especially a certain kind of excremental matter, propagated the disease; and we knew how filth and sanitary negligence would prepare for it congenial quarters. Yet, for all that, little pains were taken to exclude the foe; and we paid heavily for our practical disbelief in the teachings of science. Is all this going to be repeated? If we are better informed, even than we were in 1866, are we at the same time wiser? or are we again going to deal with the scourge under the influence of panic, instead of raising bulwarks against it upon scientific principles, as Lord Carnarvon tells us is our ordinary practice? The question has been asked in both Houses of Parliament, what precautions her Majesty's Government were prepared to take, and what local governments were doing, or capable of doing, to protect the population from its ravages? The reply of Mr. Forster, that "the real power of guarding against disease rested with local authorities," is not a very quieting one for nervous people, especially for such as take an interest in the revelations of the delinquencies of local sanitary authorities made almost day by day by the Medical Inspectors of the Privy Council. But the country must not be left to the mercy of people whose only idea is to economise and save the rates. Parliament has placed upon them certain definite duties, and conferred powers to match. The duties are clear, and the powers are sufficient. They may provide

wholesome water for their populations, and a wholesome system of management of excremental and sewage matters; and now, if at any time, it ought to be seen that they are performing the duties which they have accepted. We have been watching cholera in Russia for the last two years; it is doubtful whether it has ever been completely absent from that territory since our epidemic of 1866. In August last year it broke out at St. Petersburg, and last April at Wilna, in Western Russia, upon the river Niemen. This town is in free railway communication with the Baltic ports of Riga and Konigsberg, and there is daily communication with our western ports. The last report from Berlin is that it has certainly entered Riga, where preparations have been made for its reception, Hospitals established, and Medical men told off for duty. At Tambow, in Central Russia, of 30,000 inhabitants, 458 died of cholera in the week ending July 13. With our knowledge of what Newcastle, Sunderland, Hull, Grimsby, etc., still are, and the certainty that cholera would be quite at home in any one of them, although we do not rank with the nervous people, we think we have good reason to feel anxious that the local sanitary boards at our several ports should be stirred up into activity, and that, should the first line of our defence be forced, every town and every village in the kingdom should be prepared to resist the advance of the epidemic. Up to the present time no case of cholera has, we believe, been reported at Hull; but, on the other hand, Mr. Radcliffe has been despatched to investigate the facts relating to fatal cases in vessels trading between Hull and the Baltic ports. We should not be astonished any day now to hear of it in Hull, Grimsby, or Liverpool. The annual death-rate from diarrhœa in the week ending last Saturday was equal to 3 per 1000 in London, 5 in Manchester and Salford, 2 in Liverpool, and 5 in Leeds. In London, 17 deaths were referred to cholera and choleraic diarrhœa, against 4 and 9 in the two previous weeks. Four of these were of adults between 40 and 60 years. There is no fear of the central authority of the country neglecting its part in the work of special preparation. The Privy Council took its first public step in this direction on July 29 by the issue of an order, under the 52nd Section of the Sanitary Act, empowering local authorities to deal with infected ships and persons before they enter a port, and directing what they are to do.

NEW INSTRUCTIONS FOR VACCINATORS UNDER CONTRACT.

We think we can trace in these instructions an implied regard to the opinions held by those who maintain at any rate the possibility of the transference of enthetic disease from the vaccinifer, and to the doctrine now held by many persons that the admixture of blood with the lymph taken is not only slovenly, but dangerous. In the face of the evidence adduced by Mr. Hutchinson before the Committee of the House of Commons, whatever view may be held as to the accuracy of that observer's inferences, some such practical rules are very proper to be given, and, apart from any consideration of the danger of introducing syphilis, are such as should be universally observed. With regard to erysipelas, it is well known that, when it is prevalent in a locality, vaccinators have been compelled now and then to suspend their operations for a time altogether. It is also satisfactory to notice that some instructions are given as to the mode of judging of the success of a revaccination. Such information was very much needed, not only by public vaccinators, but by Medical Practitioners generally, who will be glad to learn, upon the authority of the skilled advisers of the Privy Council, that revaccination vesicles, so long as they show evidence of the system being impressed, by the formation of an areola, are to be held as affording the supplementary protection which is needed. The caution, also, as to using liquid lymph, preserved otherwise than in sealed tubes, which has been kept more than eight hours may seem superfluous to some Practitioners, but it will not be so to all. A few years ago, one of the Privy Council inspectors stated that he met with one Medical man who carried lymph about in his pocket stored in a bottle until it was decomposed, and even then did not hesitate to use it. This was an extreme case of lamentable ignorance, and it is to be hoped was altogether exceptional; but we are sure that lymph is often kept in this way too long. The warning as to the avoidance of revaccination lymph derives additional force from the facts recently announced by Dr. Barbour, of the Stockwell Hospital. A series of instances came under his observation there, in which small-pox was taken within a few weeks of revaccination from some secondary pocks by a Practitioner who was not at all scrupulous, apparently, in this matter. Another rule laid down we also consider highly commendable—namely, to change the lymph in use when, as a rule, an areola is developed on the eighth day after vaccination. We are aware that many good vaccinators do not hesitate to vaccinate from pocks around which the areola has been developed on the eighth day; but its appearance so early shows that the vaccine has not passed deliberately enough through its phases. The more energetic varieties of lymph—those, for instance, which have passed through but few human transmissions—are all comparatively slow in developing the areola, and hence its early formation is one of the most reliable marks of weakening of the virus.

PROFESSOR HALFORD AND THE TREATMENT OF SNAKE-BITE.

The presentation of a testimonial to Professor Halford, of Melbourne, in recognition of his labours towards the discovery of a cure for snake-bite, has, we regret to say, led to some controversy relative to the real part Dr. Halford has played in respect to one particular mode of treatment in cases of snake-bite—we mean the treatment by injection of ammonia into the veins. If the question discussed resolved itself into the single and simple point, Who first systematically taught that in cases of poisoning from snake-bite ammonia may be thrown into the venous current with good, and, it is not too much to say, with startling results in certain cases? there would be little difficulty in settling the matter at once and definitively in behalf of Dr. Halford; but, most unfortunately, other issues have been raised, out of which has come much complexity, and therewith obscurity and doubt. For our parts, we have all along said and done everything we could in encouragement and support of Professor Halford. We have felt it possible that as a stranger in a strange land he might require the voice of the Profession of the old country, by one of its accredited organs, in his support. We have felt it right to uphold his claims against able opponents; and from the fact that at this moment we allow a matter affecting no one but the Professor himself to occupy our time and space, we prove to the fullest of our ability the desire we have that in everything reasonable he should be sustained.

Let us, then, briefly refer to the facts. The opponents of Dr. Halford urge two things. They insist that the practice of injecting ammonia into the veins for the cure of snake-bite is not a proved success, and that, if it were, the claims of originality made for or by him are greatly exaggerated, or, in plainer language, are not true. A leader in the *Melbourne Daily Telegraph* of May 20 sets this part of the discussion forth in a rough and ready way that would surprise us here did the London *Daily Telegraph* give it us. It has been alleged, so runs the argument, that Dr. Halford professes to have been the first physiologist who put ammonia into the veins of living animals and demonstrated that the experiment was safe; this, it is said, is not true. It has been alleged that Dr. Halford was the first to use ammonia as a cure for snake-bite; and this, it is averred, is not true. It has been alleged that Dr. Halford was the first to suggest that ammonia should be introduced into

the veins after snake-poisoning; and once more it is affirmed that this, also, is not true. To the argument thus set forth—with not a little vehemence, by the way—we may remark that the labour of writing it might well have been spared. Our colonial contemporaries are like the artists of the Royal Polytechnic, who raise marvellous ghosts in order to show how quickly they can dismiss them. It is never for a moment pretended by any of the supporters of Professor Halford, and least of all, we imagine, by the Professor himself, that he was the author of these original projects in their individual sense. The experiments of injecting ammonia into the veins, which the *Melbourne Daily Telegraph* alludes to as having been performed many years ago by Dr. Richardson, are familiar to physiologists. The practice of applying ammonia to a snake-wound and of giving ammonia by the mouth after snake-bite, is a practice well understood, and one that has been carried out probably for more than a century past; and the suggestion of injecting ammonia by a vein after snake-bite may also, as we are assured, have been made by Jahr—although on that point we are not certain. We admit so much readily, and if we were Professor Halford himself, we should be proud to admit it; but this we do not admit: that because these facts present themselves when they are called for, therefore Dr. Halford is to be stripped of all credit. This were indeed to use up history for enmity with a vengeance. True it is that one man injected ammonia by the veins into the living body, and the thing could be safely done; true it is that other men practised the administration of ammonia for snake-bite; but it was Professor Halford who injected ammonia into the veins for the specific purpose of counteracting the effect of snake-poison. For that act he deserves all the distinction that has flowed, or may hereafter flow, from the success of so simple an operation. We will say nothing at this moment on the perfection of the process—we will make no claim for its absolute success—but if it give but a moiety of success, it is a boon which ought to be truly, faithfully, and frankly recognised.

It would be our wish to remain silent at this point were it possible, but Dr. Halford himself has sent us a pamphlet that raises, quite unnecessarily, another issue. He claims in this paper, as we read it, priority for having suggested the injection of ammonia into the vessels after apparent death from chloroform. Whether the claim were worth raising at all, we doubt; but certain it is, that if he will look back to the *British and Foreign Medico-Chirurgical Review* for 1863, he will discover that the idea, and the practice, too, of injecting ammonia into the vessels in order to excite the motion of the heart after death from chloroform and other narcotics, is considered and described at length in an essay on the treatment of suspended animation by Dr. Richardson; the essay being, in fact, the condensation of a report, by the same author, on the treatment of suspended animation, made to the British Medical Association at its meeting in the Royal College of Physicians of London in 1862. On this point, therefore, Professor Halford is in error; and he is in error also when, in describing the experiments at which he assisted Dr. Richardson in injecting ammonia into the veins, he says that Dr. Richardson used carbonate of ammonia. In the original essay recording these experiments, and published between fourteen and fifteen years ago, it is said that *ammonia* was used; there is no mention of carbonate of ammonia having been employed. With these exceptions, our sympathies go with Dr. Halford. He learned—doubtless from Richardson's experiments, some of which he saw carried out—that ammonia can be injected with safety into the veins of living animals, and that so injected it raises the action of the flagging heart; he had heard, necessarily, that ammonia had been administered with success for snake-bite; and, by putting the two elements of knowledge together, he secured a result which, should it prove not half so useful as could be wished, is a result the best of men might fairly be proud of.

THE SMALL-POX EPIDEMIC.

There is a further decline of fatal cases in London reported—namely, from 135 to 122 deaths in the week. The vacant beds in the Asylum Boards Hospitals amounted on July 21 to 560, the average for the week being 514. Under these circumstances, the Board have thought fit to reduce the accommodation they have provided to the extent of 100 beds. The Convalescent Hospital at Islington has been altogether closed, but, anticipating the possibility of an increase during the later autumn and winter months, the building will be retained for the present. The Fever Hospital at Homerton, also, has been emptied of small-pox cases, and is now being disinfected preparatory to being applied to its legitimate use. We are glad to note, also, at last, that not only are the cases demanding admission less numerous, but are also reported from all the Hospitals to be of a milder type. We learn, also, that the mortality from small-pox has declined in all the principal towns where it was epidemic except Newcastle.

THE WEEK.

TOPICS OF THE DAY.

The following are the names of the Members of the Royal College of Physicians who were elected to the Fellowship on Thursday last week:—Thomas Bishop, M.D., Paris; Arthur Leared, M.D., Old Burlington-street; Gilbert William Child, M.D., Oxford; John Hitchman, M.D., Mickleover, Derby; Augustus Drake, M.B., Southernhay, Exeter; Edward Copeman, M.D., Norwich; Willoughby Francis Wade, M.B., Birmingham; Philip Frank, M.D., Northampton House, Piccadilly; Thomas Stevenson, M.D., Guy's Hospital; Charles Theodore Williams, M.D. Oxon.; William Tilbury Fox, M.D., Sackville-street; Edward John Waring, M.D., Maida-vale; Philip John Hensley, M.D., Henrietta-street, Cavendish-square. It is no secret that there was a prevalent feeling amongst the Fellows that the list of Members nominated by the Council was a very unsatisfactory one. Without hinting the slightest disrespect to the nominees of the Council, it was felt that no adequate reason could be given for their selection, or for the omission of many names of Members whose qualifications for the Fellowship, whether from distinction in the practice of Medicine or in Medical or general literature, were at least as high, if not far higher than those possessed by any of the new Fellows. The feeling of the College was shown in one instance by the rare incident of blackballing; whilst, even of the members elected, few escaped without adverse votes. We would not be supposed for one moment to detract from the Professional status of the Physicians who have been selected above their fellows; several of them are men of eminence, but in the list of Members there are many names which would have done even higher honour to the College roll. The fact is, the present system of election is a vicious one. It was thought that the system of sending in recommendations signed by a certain number of Fellows would be an improvement on the old one; but this is not the case. One reason is, no doubt, that the nomination papers are sent in privately, and are kept secret by the Council; they are not suspended openly, as in the Royal and other Societies. It is clear that a system of this kind opens the door to canvassing and the exercise of covert influence.

It is an encouraging sign of the times that English artisans are becoming more alive to the effects of unhealthy employments, and are themselves taking measures to avoid or to render them less injurious. Sanitary reformers who have desired to lengthen the lives of persons employed in dry-grinding and other deadly trades, by inducing them to use means by which deleterious dust may be excluded from their air-passages, have often found that obstacles were not raised by employers, but by the employed, who, through idleness, or prejudice, or

indifference, preferred to work as their short-lived fathers had done before them. We are very glad to notice that a more intelligent spirit has been aroused in certain of our manufacturing districts. This is exemplified by a memorial which has been lately sent to the Medical Department of the Privy Council by weavers in the Todmorden District. The memorialists pray that a Medical Inspector may be sent "to inquire into the sizing system generally, especially into the use and effects of China clay, and such other ingredients as may be necessary to make China clay adhere to the warp." The memorial sets forth as a ground for making this request—

"That for several years a material called kaolin, or China clay, has been introduced into the manufacture of calicoes and other grey goods; that in some mills sizing, including China clay, is laid on the warps to the extent of 40, 60, and even 100 per cent.; that before the American war the percentage was 20; that ingredients believed to be poisonous are used to make the China clay adhere to the warps; that to prevent the warps breaking, through the dryness of the atmosphere, it is necessary to close the ventilators in the weaving-sheds; that through the closing of the ventilators, the weavers are compelled to inhale the dust of the China clay that rises from the warps, mixed with the poisonous ingredients; that, working in these sheds, they suffer from excessive heat and thirst, and are greatly distressed, especially in summer, when they are frequently compelled to leave their work to breathe the fresh air outside; that the inhalation of this dust causes difficulty of respiration, loss of appetite, bronchitis, and consumption; that the strong may bear up for a time against the injurious effects of the sizing, but that it tells upon them, apparently creating, certainly accelerating, lung diseases; that many are compelled to give up weaving, being forbidden by Medical men to return to the weaving-sheds while China clay is used; that others work for a few weeks, and are then compelled to abstain for days or weeks; that the beginning of fatal illness may apparently be traced to the working in weaving-sheds wherein China clay is used."

We hear on good authority that the Privy Council intend to institute the inquiry for which the memorialists pray.

There have been several cases of murder by lunatics investigated lately, and in more than one of these the murderer was known to be insane before the commission of the crime. One instance was that of a man who destroyed his wife, but had been to a Roman Catholic priest a day or two before, who had refused to confess him on the ground that he was not in his right mind. Another case was that of Charles Sleight, a teacher, who murdered a deaf and dumb woman, the matron of the Deaf and Dumb Asylum at Hull. His conduct before the murder had led both his victim and her brother to state that his head was affected. These cases point a moral that the English Legislature is slow to learn. If the persons in question had, at least, been placed under Medical treatment and surveillance with temporary restraint, the crimes would certainly have been prevented, although some Medical man might have been made the victim of an action for false imprisonment.

At a meeting of the Members of University College on Saturday last, Lord Belper was elected President of the College in the place of the late Mr. Grote. The Council of the College, at their meeting on the same day, conferred the title of Physician to University College Hospital upon Dr. Charlton Bastian, F.R.S. Mr. Berkeley Hill, Mr. Christopher Heath, and Mr. Marcus Beck were appointed teachers of practical Surgery. The recently established Sharpey Scholarship was conferred on Mr. E. A. Schafer.

The University of Edinburgh has conferred the honorary degree of Doctor of Laws on Professor Andrews, of Belfast; Dr. Carpenter, Registrar of the University of London; Professor Allen Thompson, of Glasgow; and Dr. G. E. Paget, President of the Medical Council.

Dr. Dalrymple, the Member for Bath, is about to proceed to Canada and the United States to collect information as to the working of the American system of treating habitual drunkards.

The female Medical student movement in Edinburgh has received another check—perhaps the most serious that it has yet met. At a meeting of the Senatus of the University on the 28th of last month, the opinion of the Solicitor-General for Scotland and of other leading members of the Scottish bar was read, to the effect that the proceedings of the University as to the admission of women to the study of Medicine were wholly illegal *ab initio*. We can only say that we know that the illegality of these proceedings has been all along suspected by some of the most distinguished Professors of the University; but the party of progress urged on the University Court that the experiment should be tried, and, as it turns out, have thereby greatly damaged the cause they wished to serve. The ladies who have been induced to commence a Medical career with male Medical students in the schools of Edinburgh have really little for which to thank their friends, who have used them as a forlorn hope. They must have wasted a considerable portion of money and time, and they are no whit nearer establishing the right or propriety of young men and women studying anatomy together than they were in the beginning. One of their number has been cast in considerable law expenses, from which she is to be relieved by public subscription, and not one of them is nearer obtaining a Medical diploma than when she commenced. On the other hand, the results of the experiment have shown that the admission of male and female students to the same Medical classes will assuredly result in damage to the character of the Medical school as a place of Medical education, which permits it. If women think that they have a vocation for the study and practice of Medicine, let them pursue both; but do not let them intrude into the Medical schools and dissecting-rooms which are already occupied by men, to the injury of the institutions which admit them, and to the outrage of public decency.

Dr. John Murray has been elected to the vacant Assistant-Physicianey at the Children's Hospital, Great Ormond-street.

PENSION TO DR. GAVIN MILROY.

THE pension of £100 per annum awarded to this able and indefatigable public servant will meet with the cordial approbation of his Professional brethren. Dr. Milroy has not only furnished reports on several very important sanitary questions, and on epidemics at home and abroad, but has conferred immense benefit on the commercial interests by his admirable papers on contagion and quarantine. Those best acquainted with the services rendered to his country by Dr. Milroy will be the first to appreciate his claims to the pension, and to acknowledge that no such *honorarium* could have been more properly bestowed.

COMMUTATION OF PENSIONS.

WE observe, by the *Gazette* of the 1st inst., that Staff Surgeon-Major P. H. Roe and Assistant-Surgeon W. Haughton, M.B., late of the Royal Artillery, have been permitted to commute their pensions. The Chancellor of the Exchequer, therefore, has not yet fulfilled his intention expressed at the early part of this session of withdrawing the privilege conferred by the "Pensions Commutation Act of 1869." We have already pointed out that the benefits of commutation on the Government scheme are rather questionable, the scale of allowance being much lower than that which could be obtained in the money market. We find that, judging from the number of officers of all ranks who have commuted their pensions, and whose names have been retained on the Army List for August, our opinion appears to have been generally held throughout the service. Only twenty-eight have retired under the Pensions Commutation Act, and of these thirteen belong to the old Commissariat Department, and only two are Medical officers; but by the retirement of the two above-mentioned the number of the latter is increased to four.

HONOURS TO ENGLISH SURGEONS.

So much pleased were the Société de Secours aux Blessés, of France, at the cordial reception given to their representatives by the Medical Profession, that they have presented the cross and diploma of the Society to Sir W. Fergusson and Mr. Paget as representatives of English Surgery. The same honour has been conferred on Mr. Ernest Hart for services rendered in the ambulances of the battle-fields around Sedan and Metz. These international courtesies cannot be too highly estimated; they do more to cement friendship and good feeling than anything that diplomacy or legislation can effect.

THE SYME MEMORIAL FUND.

It is gratifying to state that the Edinburgh University Endowment Association has approved of a proposal made by Dr. Murchison, on behalf of the subscribers to the "Syme Memorial Fund." This proposal is to the effect that on Dr. Murchison handing over £2000 to the Association towards founding a "Syme Surgical Fellowship" in Edinburgh University, they should add £500 for the same object. A Fellowship will thus be established of the annual value of £100. This Fellowship is to be open to competition amongst Bachelors of Medicine of Edinburgh University of not more than three years' standing. The prize will be awarded to the competitor presenting the best thesis on a Surgical subject, giving evidence of original research and practical talent. The Fellowship will be tenable for three years, and its award will be in the hands of the Senate.

MEDICAL OFFICERS OF THE ROYAL ARTILLERY.

The prospects of Medical officers in this branch of the service are likely to be unfavourably affected if the proposed change of organisation from the brigade to the battery system be carried out. Each brigade of artillery is now under the Medical charge of a Surgeon or Surgeon-Major, and each battery under that of an Assistant-Surgeon, so that the Surgeon of a brigade having two or three batteries with the head-quarters has the services of a corresponding number of Assistant-Surgeons at his disposal for the Professional duties connected with those batteries. But if the unit of the artillery be changed from the brigade to the battery, it is at once evident that the position of the Surgeons of brigades will be seriously compromised. The proposed plan is, we believe, in high favour with the combatant officers of the artillery, as it would give a remarkable impetus to promotion among them. Each battery, with its 200 men and six guns, would be a nice independent command for a field officer; but it would hardly give sufficient employment to two Medical officers, and a Surgeon or Surgeon-Major would scarcely appreciate the position of Medical officer to a battery without an assistant. If the scheme be effected, it will afford a strong argument in support of the unification of the Army Medical Department and the establishment of the general staff system, and may even prove to be a step in that direction.

HEALTH OF SOUTHAMPTON.

This much maligned town is now said to have recovered its normal health. The small-pox somewhat heavily affected the inhabitants some months since, but there is every reason to believe that the extent and virulence of the epidemic were much exaggerated. It was stated at the police-court a day or two since by the mayor, that last week there was only one case of small-pox in the town, and that was in a child. It is to be regretted that when an epidemic, however slight, breaks out in any of our watering-places, a "hue and cry" is at once raised in some quarters, and sensational paragraphs written with a view of being quoted. This was notably the case with Hastings some time since, and with Eastbourne last year. Such "tactics" cannot be too strongly condemned.

QUEKETT MICROSCOPICAL CLUB.

The sixth annual meeting of this important society was held at University College, on Friday, the 28th ult. The number of members now amounts to 550. The annual address was given by the President, Dr. Lionel Beale, who gave a summary of the history of microscopical investigations during the past year. The following were elected office-bearers for the year 1871-72:— President, Dr. Lionel Beale; Vice-Presidents, Dr. R. Braithwaite, Mr. A. Durham, Mr. C. J. Leaf, and Mr. Henry Lee; Members of Committee, Mr. W. H. Golding, Mr. T. Greenish, Mr. E. Marks, and Mr. F. Oxley; Treasurer, Mr. R. Hardwicke; Secretary (foreign correspondence), Mr. M. C. Cooke; Honorary Secretary, Mr. T. C. White. The usual *conversazione* was held after the meeting, at which various objects of microscopical interest were exhibited.

DEATHS BY MISADVENTURE.

"Jurors," particularly coroners' "jurors," are by no means "*con*jurors," and often arrive at verdicts difficult to understand. We are by no means desirous of undervaluing the coroner's court, although it must be acknowledged that it seems, in some respects, to have more "antiquity than usefulness." A short time since a coroner's jury returned a verdict of "Death by misadventure" in a case in which a chemist had substituted a scruple for a grain of morphia. It is true that they, at the same time, "admonished the chemist to be more careful in future." Now, this is erring, no doubt, on the side of mercy; but how many verdicts have been recorded of manslaughter against Medical Practitioners, not from carelessness or "misadventure," but simply from a case taking an unfortunate turn, notwithstanding every care and skill had been taken and practised? Whatever advantage the coroner's court may occasionally have as a preliminary inquiry in some cases, there can be no doubt that it sometimes acts with peculiar and disastrous injustice in cases of alleged malpraxis on the part of the Practitioners of Medicine.

OVERWORK AND DISEASE.

We are glad to observe that the directors of the London and North-Western Railway have made some important alterations for the benefit of the pointsmen and signalmen in their employment. At the main junctions and stations the ordinary working day is to be reduced from twelve to eight hours, and at less important points these hours are to be observed on alternate weeks. Nor is this change being effected at the expense of the men themselves; on the contrary, their wages are to be advanced. There is, no doubt, a close connexion between the long hours of labour often exacted from signalmen and pointsmen and the occurrence of railway accidents; moreover, in many instances a state of ill-health was induced which inflicted great hardship on the men and their families.

"A PRETTY QUARREL AS IT STANDS."

The duties of Inspecting Medical Officers are not always pleasant or free from annoyance; cases have occurred to show the contrary. The latest is that of Dr. Stevens, the Government Medical Inspector. Having been commissioned to inquire into the health of Longton, he felt it to be his duty to characterise it as the "filthiest" place he had ever visited. Upon this announcement being made, the worthy mayor of the "filthiest" place waxed wroth, and in a plain, but not polite, way declared that Dr. Stevens had uttered a "lie." An explanation or retractation was, of course, demanded, but the mayor declined to make an apology or to explain. Dr. Stevens has placed the matter in the hands of his solicitor. There is not, of course, a mayor of Malpas "village," but there is some person no doubt who represents the intelligence and "dignity" of that unwholesome little place. Let Dr. Stevens be on his guard, for he

thus characterises it:—"It may be stated shortly, that in every conceivable variety of sanitary defect Malpas village emulates the most neglected inhabited spot that has ever been reported on."

DANGERS OF HIGH-HEELED BOOTS.

Everyone who has noticed the height to which the heels of women's boots is now carried, must have marvelled much how the wearer could maintain her equilibrium. Walking on stilts is nothing to it. It may be questioned how far the "Grecian bend" has become fashionable from a certain power it gives the wearers of the "high heel" to balance themselves. But there are more evils attending the odious custom than mere falls. The other day Dr. W. H. Paneash, of New York, "after performing an operation on a little girl whose feet had been injured by wearing high-heeled shoes," said, "This is the beginning of a large harvest of such cases."

"FLEXIONS, TORSIONS, AND DISPLACEMENTS OF THE UTERUS."

Under this title, Dr. Protheroe Smith delivered a course of lectures at the Hospital for Women at the beginning of this year. Passing over the first lecture, which was an exhaustive review of the literature of a quarter of a century on these subjects, Dr. Protheroe Smith expressed disapprobation of intra-vaginal and intra-uterine instruments as a rule. After speaking of the ordinary causes of such abnormal conditions, he accounted for the frequency of such dislocations by the incessant and excessive efforts of menstruation of the unmarried and of the sterile, confirming his opinions by some novel views of the physiology of menstruation. Thus, when this function is not interrupted by pregnancy and lactation, the uterus, contrary to the primæval law which requires women to "increase and multiply," is over-taxed, and consequently becomes often diseased and displaced. Another frequent cause of uterine dislocations, Dr. Protheroe Smith affirms, is the loss of the angle of 140°, the normal state existing between the spinal axis and that of the pelvis thus presenting a mechanical cause of displacements of this movable pelvic organ. After removing any organic or inflammatory disease of the uterus and its adjuncts, he proposed to remedy this defect by his "pelvic band," by which he restores the natural lumbo-spinal angle of 140°. Having experienced great success in the treatment of uterine deflections since adopting this plan, he strongly advocated the aid of *external* mechanical treatment, and deprecated that by intra-vaginal and uterine instruments, especially when metallic. Dr. Protheroe Smith concluded his course of lectures by stating that spino-pelvic deformity is a frequent cause of derangement of the contained viscera; that their frequency is in keeping with the advance of civilisation, and that they are, with few exceptions, menstrual as to the period of their occurrence; that the primary condition of the uterus itself, forming a predisposing, and at times the exciting, cause of flexions, is hyperæmic or inflammatory engorgement, the frequent result of excessive irritation and uninterrupted menstrual efforts, etc.; that in cases requiring intra-vaginal or intra-uterine treatment, all inflammatory and other organic affections of the uterus and neighbouring viscera should first be removed, and extreme care and gentleness observed, and all pain avoided.

HABITUAL DRUNKARDS IN FRANCE.

A deputy of the National Assembly of France has submitted to the Assembly a project of law regarding drunkenness, and the best means of putting down that vice; and the House has agreed to take the matter into consideration. The Bill proposes that for a time, and as a punishment, habitual drunkards should be deprived of their civil rights; and thus the worthy deputy seems of one accord with Dr. Dalrymple. The national sobriety of the French has been their boast for centuries; and their almost entire freedom from a disgraceful vice was the more commendable, as, until recently, it appeared quite compatible with their acknowledged genial conviviality. The French, as a people, though never total abstainers, did not get tipsy; France, though temperate, was never at any time a teetotaler. The French, until recently, were accustomed to take their wine like gentlemen, but declined to be turned into hogs by that illustrious magician, Circe, simply because they paid their moderate *devoirs* to the god of wine. Is it that the English "luxury" complained of by General Trochu has taken the form of inebriety? It is said of the First Napoleon that there was a settled idea in his mind that the English were continually tipsy; so, one morning, being desirous of paying a high compliment to the wife of a member of Council at St. Helena, his first inquiry of the lady was, "How often does your husband get drunk?" What would the great Corsican have thought of France in this year of grace?—for, be the causes what they may, concurrent testimony confirms the report that the French are no longer a sober people; but whether the Bill of the honourable deputy will have the effect of reclaiming them to the paths of temperance is an exceedingly doubtful question. Some malignant fate seems to have steeped them to the lips in that fiendish compound—gunpowder, petroleum, and brandy.

MEDICAL INSTRUCTION IN NEW YORK.

We have read with considerable interest the latest annual circular (1871-72) of the Bellevue Hospital Medical College. The Faculty—a term apparently equivalent to that of "Professional staff" in this country—includes a list of names of Practitioners of European celebrity, amongst which may be found those of F. H. Hamilton, Professor of the Practice of Surgery; Lewis A. Sayre, Professor of Orthopædic and Clinical Surgery, who has just paid us a visit, and has been expounding to highly appreciative audiences at several of our metropolitan Hospitals his special treatment of hip-joint disease; A. B. Mott, Professor of Surgical Anatomy; Austin Flint, Professor of Medicine, and Austin Flint, jun., Professor of Physiology; and William A. Hammond, whose name is too well known in this country to require any special reference. With the session for 1871-72 the College enters upon the second decade of its existence, and we believe that there is no exaggeration in the statement contained in the circular, that "in the number of matriculants and graduates the College is now second to none other in America." This remarkable success is attributed by the Faculty to the plan of instruction, which constitutes the leading feature of the College—namely, the union of clinical and didactic teaching. The collegiate year embraces a winter and a summer session. The winter session is divided into a preliminary and a regular term, the first extending from September 13 to October 10, and the second from October 11 to March 1. The summer session extends from March 11 to July 1. Lectures both clinical and didactic are given during the preliminary term, but attendance on them is not compulsory for graduation, for which the requirements are as follows:—"Three years' pupilage with a *regular Physician in good standing*,(a) inclusive of the time of attendance at Medical lectures; attendance on two full courses of lectures, the last being in this College; certificates of at least one course of practical anatomy or dissections; proper testimonials of character; an acceptable thesis in the handwriting of the candidate; and a satisfactory examination in each of the departments of instruction. The examination in Surgery will in future include ophthalmology. The candidate must be 21 years of age." The resources for clinical instruction seem to be very abundant. Bellevue Hospital receives annually from 10,000 to 12,000 patients, and there is a lying-in department in which the annual number of births exceeds 500. The students also have access to the Small-pox Hospital and the Charity Hospital in Blackwell's Island (the latter containing about 1000 patients), the

(a) We should like to know how the "good standing" is determined.—Ed.

Fever Hospital, the Hospital for Epileptics and Paralytics, the Nursery Hospital, the Insane Asylum, etc. Recitations are a new feature to us, at least, in connexion with Medical schools. We are told that, "for the benefit of those who desire a thorough drilling upon the different departments during the progress of the course, the Faculty has organised a recitation class, which will be continued throughout the regular session." These recitations will be held five evenings in the week, and will embrace all the regular subjects. Besides these recitations, there are special courses to private classes. It may excite the envy of our English students to learn that the fee for the dissecting ticket, which includes subjects and all incidental charges, is ten dollars. With regard to the expense of living, we are informed that "good board may be had at a convenient distance from the College at from five to seven dollars (or, on an average, about thirty shillings) per week," and that "pains are taken to provide a list of boarding-houses in the vicinity, so as to suit the wishes and means of students." Such vague ideas commonly prevail in this country regarding the American Medical colleges (many of which institutions are, as we have reason to know, mere diploma-shops), that we are glad to have this opportunity of directing attention to one possessing a teaching staff that would be no discredit to any European school.

FROM ABROAD.—PROFESSOR VIRCHOW'S "AFTER THE WAR"—EFFECTS OF DEFICIENT FOOD ON THE MILK—CRIMINAL ABORTION IN THE UNITED STATES.

Soon after the breaking out of the late war, Professor Virchow published in his *Archiv* an interesting paper (see *Medical Times and Gazette*, October 22, 1870, p. 484), in which, after dwelling upon the ignorance that had given rise to its declaration, and the patriotic feeling aroused in its pursuit, he expressed his warmest hopes that the ground of common humanity on which our Profession in either nation could meet would be the means of mitigating some of the horrors of the conflict, and of facilitating reconciliation after its conclusion. To this end he rested great hopes upon the instrumentality of the Geneva Convention. To the June number of the *Archiv* he has contributed an article entitled "After the War," in which he repeats his hopes and wishes that men's minds may now become engaged in the pursuits of peace and instruction. His anticipations of the influence of the Red Cross have, we fear, been scarcely realised, for he dwells in this paper a good deal on the non-observance of its rules on the part of the French combatants, who, indeed, he says, were never made acquainted with them by their Government, while for the German soldiers they had been made a subject of special instruction. At present, statements upon this subject are too loose and unconfirmed to admit of their final reception; but we fear there can be little doubt that the neutrality supposed to be secured by the Geneva Convention was frequently and sometimes intentionally violated on both sides. The last number of the *Lyon Médical* contains a circumstantial narration of what looks very like a marked instance of the latter. Professor Virchow, while bearing witness to the passionate statements of some of the French writers, blames his own countrymen for their too eager recriminations, and their not making allowance for the natural feeling of irritation which must prevail after such disasters. He thinks, however, that some of the scientific men, and especially M. Giraldès in our own columns, and Professor Chauvin at Lyons, have indulged in charges and assertions which, as wholly devoid of probability or truth, ought not, under any circumstances, have been made. His paper is too long for reproduction in our pages, but is well worth perusal by those whose patience is not already tired out by similar controversies from less able pens. One point, however, we may notice, as it has its literary and abiding interest. The Lyons Professor, in his somewhat fiery address, declares that Virchow, although he had been himself a pupil of Küss, of Strasburg, omits all mention of his right to priority in the doctrines of the "Cellular Pathology." All who know Professor Virchow's loyalty and exactitude will be prepared for a crushing reply. It is to the effect that he had never been a pupil of Küss, never having, indeed, studied at Strasburg: and as he never met Küss personally until 1861, while his lectures on "Cellular Pathology" were published in 1858, it is evident that no oral statement could have been appropriated in them. Yet, although unconnected with his doctrines on pathology, Professor Virchow has been the only writer in Germany who has acknowledged the merits of Küss as a pathologist, having frequently quoted him in his *Archiv* and also in his *Handbüch*; in fact, bestowing an amount of recognition upon him entirely wanting among his own countrymen until recent political events had rendered his name famous. His small work, "De la Vascularité et de l'Inflammation," published in 1846, is one of real merit, decidedly contributing to an advance in our knowledge of inflammation; but it has no one idea in common with the doctrine developed in the "Cellular Pathology."

At the Académie des Sciences, on the 10th ult., M. Decaisne read an interesting paper on "The Modifications which Human Milk undergoes in consequence of Insufficient Food." He observes that most of the observations that have hitherto been published upon this subject have been made on animals, but the siege of Paris has furnished him with the opportunity of examining it in women. The present paper is based upon an examination of the milk of forty-three suckling women living upon insufficient food, and it concludes as follows:—1. The effects as observed in women are very analogous to those produced in animals. 2. They vary according to constitution, age, hygienic conditions, etc. 3. Insufficient alimentation always induces, in varying proportions, a diminution in the amount of butter, casein, sugar, and salts, while it generally increases that of the albumen. 4. In three-fourths of the cases the proportion of albumen was found to be in an inverse ratio to that of the casein. 5. The modifications in the composition of the milk by means of a reparative alimentation are always manifested in a remarkable manner in four or five days.

It is gratifying to find that of late some serious steps have been taken in the United States towards a more effectual repression of that notorious scandal, the practice of criminal abortion. Enlightened members of our Profession have long lifted up their voices against it, but seemingly with little effect; and it is to be hoped that the co-operation which they have of late received on the part of some of the judges and public prosecutors, late as this has been in manifesting itself, may be attended with better results. At present, however, it is very doubtful how far such efforts are backed up by the opinion of the community at large, and especially of the female portion of it; and a practice that has prevailed so long, so openly, and so extensively, even in respectable spheres of society, will require a considerable amount of official denunciation, and several examples of the infliction of disgraceful punishment, before public opinion can be generated of sufficient force to hold it in effectual check, although it may be resorted to in a more clandestine manner than at present. However, to a certain extent some of the sentences that have been recently passed will have a good effect—or rather, we should say, the terms in which they are delivered may arouse the public conscience, for the sentences themselves have usually been very inadequate as applied to such hardened criminals as practised abortionists. In this country we should think it indeed a strange and poor compliment to a judge to pass a vote of thanks to him for performing his duty, and it shows the gravity and urgency of the case that the New York Academy of Medicine should have deemed it desirable to come to the following resolutions:—

"Whereas the pervading crime of abortion as a regularly advertised business has in this city and county been hitherto opposed by the Medical Profession without the uniform and efficient co-operation of the State officers and the courts which has been desired and reasonably expected: Resolved, that the advent of any administration which will secure it such long-

desired support as shall enable it to successfully contend against the wide-spread crime, practised in too many instances by malefactors possessing or pretending to possess Medical diplomas; Resolved, that Judge Bedford, by his manner of conducting the trials of those notorious abortionists and enemies to mankind, Wolff and Lookup, by the high moral tone of his addresses to, and by his clear and specific instructions given to, the juries; and finally, by his prompt and just sentences, eminently honoured the name he bears, has done efficient service to society, has merited the commendation and shall have the cordial approval of the New York Academy of Medicine, as he doubtless will of every member of the Profession who properly estimates his duty and morality: Resolved, that a copy of this expression of the Academy be sent to Judge Bedford," etc.

How difficult the subject is to deal with in a community where such lax ideas on the matter have prevailed, is seen in the recent conviction of Dr. James Cutter (a man moving in the best circles of the Profession), on his own confession, for having performed criminal abortion. The recklessness exhibited was remarkable, for the woman operated upon was an utter stranger to him, and he only complied with her wishes to save her, as he believed, from impending ruin, no prospect of payment ever having had its influence, as she was poor and wretched. The punishment awarded by the law is seven years' imprisonment; but the judge, of less stern resolve than Judge Bedford, taking into consideration the contrition of the prisoner, the large number of his Medical brethren of high standing who petitioned in his favour on the ground of previous good character, and the fact that "numerous of the most prominent business men of the city of Newark" requested the court to substitute fine for imprisonment, passed a sentence of payment of 500 dollars, which, of course, was no sooner said than done. It is evident that while Physicians in high repute can thus lightly lend themselves to criminal actions, and judges, on their detection, visit them with merely nominal penalties, much—very much—remains to be done before a healthy public feeling can be generated. We feel somewhat curious to know whether the Medical societies and associations to which Dr. Cutter may belong will accept this legal whitewashing as a sufficient reason for continuance of his membership.

PARLIAMENTARY.—THE APPROACH OF CHOLERA—CONTAGIOUS DISEASES ACTS—LOCAL GOVERNMENT BOARD BILL—FACTORIES AND WORKSHOPS AMENDMENT BILL.

On Thursday, July 27, in the House of Lords,

Lord Carnarvon, after some remarks on the apprehended approach of cholera, said he feared it was now too late for any legislative measures to meet the emergency. He referred to the Commission on Water Supply, and the measures recommended by the Sanitary Commission, and asked for a statement of the intentions of the Government.

Lord Kimberley, who said he regarded the existing alarm as to some extent unfounded, described the precautions about to be taken by the Government, and urged by them upon the local authorities. Mr. Stansfeld's Bill, bringing all the powers of local government into one department, would be a great step in this direction.

Lord Shaftesbury hoped that next year the question of water-supply and Sir C. Adderley's Sanitary Consolidation Bill would receive due consideration.

In the House of Commons,

In reply to Mr. A. Herbert,

Mr. Gladstone stated that distinct notice would be given when that part of vote 9 of the Army Estimates which provided for the expenses of the police in carrying out the provisions of the Contagious Diseases Acts might be discussed.

Mr. Hardy asked the Vice-President of the Council whether he had any information as to the approach of cholera, and whether he considered that there were now existing sufficient powers in the central and local governments of the country to protect the population from its ravages.

Mr. W. E. Forster said: As I only saw the question in the business-paper this morning, I shall not be able to answer it so fully as I otherwise might. The latest information I have received on the subject is to the effect that cholera has for the last two years been in Russia, and since August of last year in St. Petersburg. Since April of this year it has been in Wilna and other western places; recently, it has increased in St. Petersburg, but not nearly so much there as some months ago, and the disease is said to have some diffusion in the western provinces of Russia. We need not assume that this bodes any immediate danger to this country. We have no knowledge of any cases in Germany, but I have requested the Foreign Office that special inquiry on this point may be made at Berlin, and that if cholera is, or arises, in Germany, returns about it may be systematically forwarded to us. While thus there is no reason for immediate alarm, or for any particular action of central authority, there is ample reason that local authorities should exert themselves in the removal of nuisances, and should watch with extreme care over the sources of water-supply within their districts. Water companies should be mindful that the greatest disasters produced by cholera in this country have been due to their distribution of sewage-tainted water, and every care should be used by them, in good time, to prevent the recurrence of any such mischief. Their customers, too, should watch them narrowly. Authorities and water companies, acting as advised, need not be afraid of wasting their trouble; for, whether cholera comes or does not come, they will be preventing other diseases. The danger of cholera is one against which the central Government can do scarcely anything—not because the law gives insufficient jurisdiction, but because, from the nature of the case, everything depends on local action. The Medical Department has given to local authorities in systematic memoranda, and is constantly in various ways giving anew, the best information which it can afford in aid of the local exercise of sanitary powers.

The House went into Committee on the Local Government Board Bill. On Friday this Bill passed through Committee.

On Monday, July 31,

In answer to questions from Sir J. Elphinstone and Mr. Baines touching the literature of the Contagious Diseases Acts controversy,

Mr. Bruce said that if it were conducted with discretion no law could interfere with it, but if it degenerated into a tone of grossness it would be for the courts to say whether it came within Lord Campbell's Act.

On Tuesday,

Dr. Playfair asked the Vice-President of the Committee of Council whether the cases of Asiatic cholera reported as existing at Hull did not occur in ships several days before they reached that port, and whether any case of Asiatic cholera had been as yet reported within this kingdom.

Mr. W. E. Forster: In answer to the question of my hon. friend, I have to state that I received a telegram from Hull shortly after I answered the question put the other evening, that there had been a case of cholera at Hull, and I requested Mr. Simon to send down one of the inspectors. A report was received the next day, which I find, on examination since, is quite confirmed. It is to the effect that it was not a case of cholera that had been imported into Hull; it was the case of a ship coming from Cronstadt, in which a man died two days after leaving Cronstadt, and five days before reaching Hull. In another ship a man had died of cholera at Cronstadt thirteen days before arrival at Hull. There was no case of cholera after arrival at Hull. The Medical Department has no information of any case of Asiatic cholera in this country.

The Local Government Board Bill was read a third time.

The Factories and Workshops Acts Amendment Bill was read a second time.

The order for the second reading of the Public Health and Local Government Bill was discharged, and the Bill withdrawn.

ROYAL ALBERT ASYLUM, LANCASTER.—The Emperor and Empress of Brazil and their *suite* honoured this Institution with a visit on Friday last. The Imperial party was received by Dr. De Vitre, the Chairman of the Central Committee; Dr. Shuttleworth, Medical Superintendent; and Mr. Diggens, the Secretary. The Emperor made numerous inquiries of Dr. Shuttleworth respecting the causes of idiocy, the system of treatment, and the results. Before leaving, their Imperial Highnesses greatly commended the complete arrangements for the training and comfort of the children. The erection of the whole building will, it is expected, be completed by next spring.

PALATABLE CASTOR OIL.—Castor oil may be rendered as "sweet as honey" to take by combining it with equal parts of pure glycerine with which a few drops of cinnamon oil have been previously rubbed up.—*Boston Journal*, May 18.

BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

REPORT OF THE FORTY-FIRST MEETING.

EDINBURGH, 1871.

THE British Association for the Advancement of Science holds this year its forty-first meeting in the good old city of Edinburgh. It is now twenty-one years since the Association met on the same classical soil, and then it met to celebrate one of the best and most successful of its many successes. Sir David Brewster presided on that occasion, and from that day until now there has been a cherished and often repeated northern desire that the success should be obtained again. How the Edinburgh deputations have fought for a few years past for every inch of the ground they have won, all frequenters of the meetings of the Association know, and some rivals of the Edinburghians know too well. The northern men this year have things their own way, and will, we doubt not, give an account of their stewardship that will bear remembrance.

Edinburgh is considered by the Dryasdust school the very cradle of scientific associations; and it has, in fact, been suggested that it were a pity the Social Science Association and the British Association for the Advancement of Science could not this year make an amalgamated meeting in commemoration of an event some 253 years ago, when such a combined meeting did, forsooth, take place under royal presidency. Our contemporary, the *Athenæum*, in its last impression, records, with some sense of humour, that King James of Scotland and England—Sir Solomon or Sir Fool, according to taste of loyalty—presided over a meeting of philosophers in the Scottish metropolis, and discussed with them various social and scientific questions. Ought sheriffs to hold office by hereditary right and descent? was one of these subjects, on which the King—he was a jealous King on matters of hereditary descent—held his view against the sheriffs. When he heard discussed a scientific question (says the chronicler)—viz., "On the Nature of Local Motion," during the debate Aristotle was so freely referred to by certain of the speakers, that the King congratulated them on knowing as much about Aristotle as Aristotle knew about himself—a remark which satisfied everybody. A little later, and his Majesty listened to a third disputation, "Concerning the Origin of Fountains or Springs," whereupon the Solomon had the pleasure of setting men up and hitting them down, and of taking two or more sides on every point, to his royal heart's content. He concluded by giving out a series of bad puns on the names of the debaters, one of which puns was really not so bad had it not been levelled at a man so much more kingly than the King. The philosopher punned against was one Professor Charteris, of whom, said the King, "his name agrees with his nature; charters contain much matter, yet say nothing, and, nevertheless, put a great deal into men's minds." "The Philosopher," adds our contemporary historian, "delighted with the Monarch's follies, hired a poet to immortalise the royal wit. The poet put all the bad puns into worse verse, and the Association broke up in a state of jubilation."

At our meeting, now in its beginning, in Edinburgh in 1871, we shall have no royal president of hereditary descent, but we shall have, nevertheless, a man who, in these working days, has done right royal work, and won a knighthood by labour as enduring and noble as any knight of the olden race. Professor Sir William Thomson, to whom Professor Huxley resigns the chair, is in every sense the man—we may say, without affectation, the Scotchman—for the occasion. His researches on electricity, his great knowledge and persevering activity in the perfection of oceanic telegraphic communications, and his extended and suggestive views on the relations of matter and force, mark him as the man of the century who should preside at a meeting of men of science, where the special is lost in the general and the men in the society they represent.

Professor Thomson is ably seconded by the presidents of the other sections. Over chemistry this year, Dr. Andrews, whose researches on ozone are so familiar to all our readers, presides; and over biology, in which section the physiologists have their say, and which is, consequently, the chief centre of attraction for the Medical part of the Association, the newly-elected Professor of Natural History, Dr. Allen Thomson, holds presidential rule.

The prospects of the present meeting are good, although many obstacles stand in the way. One or two other meetings of a similar kind are at hand in England. In Ireland the approaching Royal visit is the great source of attraction; and the fact that Parliament is still at work is no small disadvantage, seeing that there are a few men in Parliament whose presence is always important in this Parliament of Science. Against these obstacles there is the double set-off that France and Germany are at peace, and that the scholars in science of those two great countries are expected in force.

INSTRUCTIONS FOR VACCINATORS UNDER CONTRACT.

1. EXCEPT so far as any immediate danger of small-pox may require, vaccinate only subjects who are in good health. As regards infants, ascertain that there is not any febrile state, nor any irritation of the bowels, nor any unhealthy state of skin; especially no chafing or eczema behind the ears, or in the groin, or elsewhere in folds of skin. Do not, except of necessity, vaccinate in cases where there has been recent exposure to the infection of measles or scarlatina, nor where erysipelas is prevailing in or about the place of residence.

2. In all ordinary cases of primary vaccination, if you vaccinate by separate punctures, make such punctures as will produce at least four separate good-sized vesicles, not less than half an inch from one another; or, if you vaccinate otherwise than by separate punctures, take care to produce local effects equal to those just mentioned.

3. Direct care to be taken for keeping the vesicles uninjured during their progress, and for avoiding afterwards the premature removal of the crusts.

4. Enter all cases in your register on the day when you vaccinate them, and with all particulars required in the register up to column nine inclusive. Enter the results on the day of inspection. Never enter any results which have not been inspected by yourself, or your legally qualified deputy. In cases of primary vaccination, register as "successful" only those cases in which the normal vaccine vesicle has been produced; in cases of revaccination, register as "successful" only those cases in which either vesicles, normal or modified, or papules surrounded by areolæ, have resulted. When the vaccination of an unsuccessful case is repeated, it should be entered as a fresh case in the register.

5. Endeavour to maintain in your district such a succession of cases as will enable you uniformly to vaccinate with liquid lymph directly from arm to arm; and do not, under ordinary circumstances, adopt any other method of vaccinating. To provide against emergencies, always have in reserve some stored lymph—either dry, as on thickly-charged ivory points, constantly well protected from damp; or liquid, according to the method of Dr. Husband, of Edinburgh, in fine, short, uniformly capillary (not bulbed), tubes hermetically sealed at both extremities. Lymph, successfully preserved by either of these methods, may be used without definite restriction as to time; but with all stored lymph caution is necessary, lest in time it have become inert, or otherwise unfit for use. If, in order to vaccinate with recent liquid lymph, you convey it from case to case otherwise than in hermetically sealed capillary tubes, do not ever let more than eight hours intervene before it is used.

6. Consider yourself strictly responsible for the quality of whatever lymph you use or furnish for vaccination. Never either use or furnish lymph which has in it any, even the slightest, admixture of blood. In storing lymph, be careful to keep separate the charges obtained from different subjects, and to affix to each set of charges the name, or the number in your register, of the subject from whom the lymph was derived. Keep such note of all supplies of lymph which you use or furnish as will always enable you, in any case of complaint, to identify the origin of the lymph.

7. Never take lymph from cases of revaccination. Take lymph only from subjects who are in good health, and, as far as you can ascertain, of healthy parentage; preferring children whose families are known to you, and who have elder brothers or sisters of undoubted healthiness. Always carefully examine the subject as to any existing skin disease, and especially as to any signs of hereditary syphilis. Take lymph only from well-characterised uninjured vesicles. Take it (as may be done in all regular cases on the day-week after vaccination) at the stage when the vesicles are fully formed and plump, but when there is no perceptible commencement of areola. Open the vesicles with scrupulous care to avoid drawing blood. Take no lymph

which, as it issues from the vesicle, is not perfectly clear and transparent, or is at all thin and watery. From such a vesicle as vaccination by puncture commonly produces, do not, under ordinary circumstances, take more lymph than will suffice for the immediate vaccination of five subjects, or for the charging of seven ivory points, or for the filling of three capillary tubes; and from larger or smaller vesicles take only in like proportion to their size. Never squeeze or drain any vesicle. Be careful never to transfer blood from the subject you vaccinate to the subject from whom you take lymph.

8. Scrupulously observe in your inspections every sign which tests the efficiency and purity of your lymph. Note any case wherein the vaccine vesicle is unduly hastened or otherwise irregular in its development, or wherein any undue local irritation arises; and if similar results ensue in other cases vaccinated with the same lymph, desist at once from employing it. Consider that your lymph ought to be changed if your cases, at the usual time of inspection on the day-week after vaccination, have not, as a rule, their vesicles entirely free from areolæ.

9. Keep in good condition the lancets or other instruments which you use for vaccinating, and do not use them for other Surgical operations. When you vaccinate, have water and a napkin at your side, with which invariably to cleanse your instrument after one operation before proceeding to another.

THE PHYSIOLOGY OF MIND IN THE LOWER ANIMALS.

Independently of Mr. Darwin, who has devoted a considerable part of the first volume of his "Descent of Man" to this question, Dr. Lindsay, Physician to the Murray Royal Institution for the Insane, Perth, has for the last two years "been studying the subject of Mind in the lower animals, both in its normal and diseased conditions," and the result of his investigations—in so far as the physiology is concerned—is given to us in the April number of the *Journal of Mental Science*. "My object," says Mr. Darwin, "in this chapter (the second) is solely to show that there is no fundamental difference between man and the higher mammals in their mental qualities;" and, "with respect to animals very low in the scale, I shall show that their mental powers are higher than might be expected." Dr. Lindsay clearly holds similar views, when he observes that "certain of the lower animals possess, quite as much as man does, a natural disposition or character which includes both *virtues* and *vices*—amiable and unamiable, noble and ignoble qualities. Not only, however, is there frequently a character pertaining to the species, but among certain animals (as the dog) there is an *individuality*, occasionally quite as marked as that which exists in man." We shall endeavour in this article to lay before our readers a sketch of the leading results at which these well-qualified observers have arrived.

To begin with the *virtues* of animals, we meet with numerous examples in which maternal affection is exhibited by animals in various ways. 'Rengger observed an American monkey (a cebus) carefully driving away the flies which plagued her infant; and Duvancel saw a hylobates washing the faces of her young ones in a stream."(a) Certain female monkeys kept by Brehm in North Africa died from grief when they lost their young; and this naturalist observed that orphan monkeys were always adopted by some of their older companions. That "blood is thicker than water" is a proverb apparently believed in as fully by monkeys as by men, as the following anecdote will show:—An old baboon in the Zoological Gardens had adopted a rhesus monkey; but when a young drill and mandrill were placed in the cage, she saw that they were nearer relatives than the rhesus, and at once adopted them and disinherited the rhesus, who, like other disinherited heirs, subsequently did all in its power to annoy its supplanters.

Motherly love is moreover exhibited to a great extent by the female dog, and by numerous mammals, even down to the cetaceans. Is there a single reader of these pages who has not enjoyed the chapter on "Our Dogs," in Dr. John Brown's "Horæ Subsecivæ"—who does not know the history of "Toby, Wasp, Rab, and Company"? "If such there be," we can only say that he has a pleasure to come. It is there recorded that "once, when Wasp had three pups, one of them died. For two days and nights she gave herself up to trying to bring it to life—licking it and turning it over and over, growling over it, and all but worrying it to awake it. She paid no attention to the living two, but was as one possessed, and neither ate, nor drank, nor slept, and was in such a state of excitement that no one could remove the dead pup." For the history of how, on the third day, she committed its body to the depths, and then, on her return home, "sought out the living two and devoured them with her love," we must refer to Dr. Brown's enchanting pages. Could any human mother's love exceed that of Wasp?

Brotherly love is cultivated by various animals, according to Dr. Lindsay. We doubt whether some of the cases of social and gregarious animals, as the communities of bees, wasps, ants, and the shoals of fishes, and the herds of antelopes, buffaloes, etc., are quite to the point, but dogs are often much attached to one another, and it is no uncommon sight to observe a large and very little dog on the most affectionate terms. Perhaps the prairie dogs (which our readers doubtless know are not dogs, but rodents) exhibit this feeling as much as any animals. Professor Jillson,(b) who kept two of them for some time, describes them as "very affectionate, seldom quarrelling, and often standing with their forepaws on each other's shoulders, rubbing their noses together," and, on being brought together after a short accidental separation, "the demonstrations of affection which followed would put to shame many a couple of higher intelligence." Amongst other virtues which Dr. Lindsay notices in animals are (1) generosity and benevolence, (2) gratitude, (3) fidelity, (4) courage, (5) emulation, (6) caution, (7) obedience, (8) patience, (9) industry, and (10) providence. Many of these virtues are also referred to and illustrated by Mr. Darwin. Our limited space prevents us from touching upon more than a few of these heads. There can be no doubt that, while many animals are far from feeling any sympathy for their fellows in distress, some undoubtedly exhibit a benevolent interest in cases of old age, suffering, or danger. Numerous well-authenticated anecdotes of dogs, rats (a blind individual being led by a straw), and other mammals exhibiting this virtue are on record, and both Mr. Darwin and Dr. Lindsay refer to cases in which it has been exhibited by birds. The former quotes observations by Captain Stansbury of a blind old pelican that was kept positively fat by the humanity of its friends, and by Mr. Blyth of Indian crows similarly feeding their blind companions. As illustrative of a form of courage almost amounting to heroism, and quite distinct from the mere instinctive courage of the bulldog, we may mention the story of a noble-minded baboon recorded by Brehm and quoted by Mr. Darwin. A great troop of baboons was crossing a valley in Abyssinia, when those in the rear, which were still on the low ground, were attacked by dogs. All, however, after a short skirmish, succeeded in ascending the heights on the opposite side excepting a young one, about six months old, who, loudly calling for aid, climbed on a block of rock and was surrounded. One of the largest males, seeing the perilous state of affairs, came down from the rocky eminence on which he was safely perched, slowly went up to his young friend, coaxed him, and triumphantly led him away, the dogs being too much astonished to make an attack. A little American monkey in our Zoological Gardens some years ago exhibited a rare amount of physical courage and attachment to its keeper. It lived in the same large compartment with a fierce baboon, of which it was dreadfully afraid. Yet when this ferocious monster attacked the keeper, the monkey rushed to the rescue, and, by screams and bites, so distracted the baboon that the man was able to escape. If we compare the conduct of the Abyssinian baboon and the American monkey with that of the Fuegians, who, when their parents get old or fall ill, bury them alive, or of the Koraks,(c) who explained to some recent travellers the different ways in which they killed their old people when they became unfitted for a nomadic life, we fear that "the paragon of animals"—at all events as represented by these unsophisticated races—will hardly benefit by the contrast.

With these and many other *good* qualities are associated many of an opposite kind, some of them amounting to *vices*. Amongst these vices Dr. Lindsay specially mentions obstinacy, laziness, dishonesty, vindictiveness, cowardice, treachery, etc. Passing over this section of the memoir, we come to the consideration of "certain other mental qualities that constitute important features in disposition and character, but which scarcely belong to the category either of virtues or vices," as vivacity,

(a) Darwin, "The Descent of Man," vol. i., p. 40.

(b) The *American Naturalist*, for March, 1871.

(c) See Kennan's "Tent Life in Siberia," page 222, one of the most instructive and amusing books of travel published for many years.

curiosity, and pride. As illustrative of vivacity he refers to the mocking-bird, which carries its playfulness to the extent of serious practical joking, decoying and terrifying other birds, and to a Capuchin monkey, which, according to Humboldt, was in the habit of catching a pig every morning, and riding it for the rest of the day. The curiosity of animals is admirably illustrated by an anecdote which Brehm tells regarding monkeys. Their horror of snakes is well known, yet certain of his monkeys could not resist the temptation of occasionally lifting up the lid of a box in which they knew the snakes were contained. For a most amusing account of the mode in which Mr. Darwin, with various modifications, repeated the snake experiment upon the London monkeys we must refer to page 43 of his first volume.

"Hardly any faculty," says the author to whom we have just referred, "is more important for the intellectual progress of man than the power of *attention*." Both the writers whose labours we are at present noticing dilate considerably on the amount of this power that is exhibited by certain animals, and they point out that the faculty is as variable amongst creatures of the same species as amongst school children. Dr. Lindsay gives a sketch of an interview which a member of the staff of the *New York Times* had with a trainer of dogs for theatrical performance. This dog-teacher observes that poodles are the best dogs for the stage, and that it is surprising to know the difference it makes to train a dog from an *intellectual stock*. "That poodle's grandfather ran one hundred nights in 'The Orphan's Friend,' and his grandson learns 'most anything at one showing." Mr. Darwin tells us of a monkey-trainer who bought his animals at five pounds apiece, but offered double the price if he might keep three or four of them for a few days, and then make his selection. The success of a monkey on the stage mainly depending on its power of attention, he could learn in that short period which were promising and which were hopeless pupils—a monkey that during its lesson allowed himself to be diverted by (for example) a fly on the wall was at once placed in the latter category.

Few persons who have been careful observers of animal life can doubt that not only the higher mammals, but certain birds and insects possess a considerable amount of reasoning power. Monkeys, probably, as might be expected, stand next to man as reasoners. Rengger's Paraguay monkeys, on first receiving eggs for food, smashed them, and thus lost most of their contents; but they speedily hit upon the process of cracking one end of the egg and picking off the fragments of shell with their fingers. Lumps of sugar were often given them, wrapped up in paper, and Rengger sometimes put in a wasp with the sugar, so they occasionally got stung. After this had once or twice happened, they always held the packet to their ears to detect any movement before opening it. Mr. Darwin quotes two stories of thoroughly-broken retrievers which, under special circumstances which fully warranted their proceedings, killed wounded birds, showing, as he says, "reason, though not quite perfect."

The remarks on the *language of animals* by both our authors are deserving of much attention. Leroy, better known as "the Naturalist of Nuremberg," more than a century ago asserted that animals have a spoken language, and a much later writer of high authority, the late Archbishop Whately, maintained that man "is not the only animal that can make use of language to express what is passing in his mind, and can understand, more or less, what is so expressed by another." The dog, since being domesticated, has learnt to bark in at least four or five distinct tones, each expressive of a different feeling, and all perfectly intelligible both to man and to his fellow-dogs. There is a monkey in Paraguay, described by Rengger, which utters at least six distinct sounds that are clearly understood by its fellows. "Articulate language is, however (says Mr. Darwin), peculiar to man." To this statement we should decidedly demur if he did not subsequently add that "it is not the mere power of articulation that distinguishes man from other animals; but it is his large power of connecting definite sounds with definite ideas." We have met with parrots which undoubtedly do not always speak at random, but in some instances associate a meaning with the words they utter. A publican in Melbourne is recorded as having succeeded in evading being detected in Sunday trading by having taught his parrot to cry out "Police!" whenever those dangerous officials came in sight. That animals have the power of communicating their ideas to their fellows is beyond any possibility of doubt, although we may never understand the mode of their communication. Sir Emerson Tennant tells us in his "Natural History of Ceylon" of two crows that enviously watched a chained-up dog enjoying a bone. After two or three futile attempts to rob him of his prize they retired for a time, and then returned with an *insouciant* air, as if they had no concern with either dog or bone. On a sudden, however, when the dog was at the length of its tether, one bird seized him by the tail, and as he turned his head to attack the aggressor, the other hopped off in triumph with the prize. Surely so deep-laid a scheme as this must have required a somewhat complex form of language.

The last attribute to which we shall advert as being common to animals as well as man, is *consciousness*, or an appreciation of right and wrong. We all know the "conscience-stricken tail" of the guilty dog. As the American dog-trainer to whom we previously referred observed, "Dog human-nature *will* show itself *there*." Mr. Bennett gives an instance of consciousness of wrong-doing in the Ungka ape, which quietly restored a piece of soap he had taken when he saw that his theft had been observed; and Du Chaillu describes a similar case in a young chimpanzee; while Brehm tells us that when the baboons in Abyssinia plunder a garden they silently follow their leader, and if an imprudent young animal makes a noise he receives a slap from the others to teach him silence and obedience—but as soon as they are sure that there is no danger, all show their joy by much clamour. (See Darwin, *op. cit.*, vol. i., p. 79.) Some animals have not only got a code of ethics, but inflict punishments upon those of their companions who infringe upon this code. Cases have been more than once observed of a jury of rooks sitting on some unfortunate sinner, and terminating the assize by becoming his executioners, and pecking him to death; and many instances are recorded in which ants, failing to discharge their public duties—as, for instance, to take their part in assisting at the funerals of their fallen comrades after a battle—have been seen to be at once sacrificed as examples to the rest.

May we, without shocking the feelings of our readers, venture to suggest that possibly some of the higher mammals, and especially the dog, may have an approach to a feeling of *religion?* We do not stand alone in this belief. Leroy—probably one of the best observers of animal life that ever existed—points out that the special affection of a creature for one of a superior order may be considered a semi-religious state of mind; and his predecessor, Bacon, must have had this feeling when he observed that "man is the *god* of the dog"—a statement commonly credited to the poet Burns. This view is strengthened, as Mr. Darwin observes, by the very different behaviour of a dog when returning to his master after a temporary separation, to his conduct when again meeting his old fellow-companions.

We trust that we have adduced sufficient evidence to convince even the most sceptical that, to use the words of Dr. Lindsay, "certain of the lower animals possess *mind of the same nature as that of man;* that there is no mental attribute peculiarly or characteristically human; and that there is, therefore, no essential mental distinction between man and other animals;" or, to put it as Mr. Darwin does, that "the difference in mind between man and the higher animals, great as it is, is certainly one of degree, and not of kind."

THE CURE OF INEBRIATES IN AMERICA.

About a year and a half ago we discussed this subject in especial reference to the labours of Dr. Albert Day, at the Washingtonian Home, Boston, and subsequently at the New York State Inebriate Asylum, Binghamton. Since that time we have received two additional Binghamton reports—namely, those for 1869 and 1870. The former of these reports bears the signature of Dr. Day, is written in the same genial and hopeful spirit as his former reports, records many remarkable cases of cure, and affords no indication of any impending changes in the institution, which he had worked up, against many drawbacks, into a state of thorough efficiency. In the latter, which is signed by a Dr. Daniel Dodge, there is positively not even a passing allusion to the labours of his predecessor, who, as we have been informed on good authority, felt compelled early in the spring to send in his resignation, in consequence of the factious opposition that he encountered from certain influential members of the committee, from whom he had every right to expect cordial support. Whether he published an account of doings in connexion with the Hospital that were not intended or suited for publication, we do not

know, and do not care to inquire: but, at all events, the place knew him no more, and not only is he totally ignored, as we have already remarked, by his successor, but, at the "kind invitation" of that person, John M. Pomeroy, Esq., a late inebriate, gives the results of his inquiries and observations, and "offers some remarks in reference to the Asylum and its best interests," which are "published by direction of the Superintendent." It will hardly be credited that this Dr. Daniel Dodge has directed the late inebriate to write as follows respecting Dr. Day and himself:—"The institution has passed through a troubled existence, and it has at length been placed upon a sure basis. For the first time since its foundation, we find its internal management in the hands of a man who unites Medical science with administrative ability, and who commands the respect of every patient." We don't grudge Daniel Dodge the "respect" of the sots by whom he is surrounded, for any respect that more creditable admirers may have entertained for him will probably be lost by the total absence of Professional etiquette that he seems to have exhibited. Statistics, unfortunately, do not speak so favourably for Dr. Daniel Dodge as we should have inferred from the late inebriate's eulogistic statements. Our readers, in going over the following numerical results, must bear in mind that Dr. Day had charge of the Asylum not only during the whole of 1869, but till at least the end of April, 1870, and that it was only during the last eight months of the latter year that Dr. Dodge was Superintendent.

	1869.	1870.
Number of patients received during the year	214	220
Average number per week	71	60
Largest number per week	97	72
Smallest number per week	55	48
Paying patients	205	181

The deleterious influence of Dr. Dodge is perceptible in all these comparisons. As in a paper on "Restraint as a Remedy in the Treatment of Inebriety," published in the "Proceedings of the American Association for the Cure of Inebriates," Dr. Dodge admits that "previous to the last six months we [*i.e.*, Dr. Dodge] paid no more attention to this subject than usually falls to the lot of all Practitioners," and as he tells the trustees that he had in some measure to learn the peculiar practice essential to the treatment of drunkards, we need not refer further to his report, to which we have nothing special to object, except the statement (which he makes as if it were a highly creditable one) that he had "printed and widely disseminated two addresses delivered by patients," one being the obnoxious article by Mr. Pomeroy already noticed.

We feel bound in honour to our readers to place these unpleasant facts on record, because we *did* hold up Binghamton, both in these pages and elsewhere, as a model institution, and *do* hold a very different opinion regarding it under its present management, and we are in a position to add that our present views are in accordance with those of the leading New York Physicians.

Whether the "American Association for the Cure of Inebriates" will do any real service we cannot yet tell. The proceedings of their first meeting, held last November in New York, are now lying before us. At that meeting, seventeen "Physicians, superintendents, and friends of inebriate asylums" were enrolled as members, and papers were read "On the Pathological Influences of Alcohol and the Nature of Inebriation," by Dr. Davis; "On the Philosophy of Intemperance," by Dr. Parrish; "On the Disabilities of Inebriates," by the Inmates of the Pennsylvanian Home: on his "Experiences at the Washingtonian Home," by Mr. Lawrence; "On Restraint as a Remedy in the Treatment of Inebriety," by Dr. Dodge; "On the Relation of the Church to Inebriates," by the Rev. J. Willett; "On Inebriate Asylums as they relate to Questions of Social and Political Economy," by Dr. Albert Day; "On the Moral and Social Treatment of Inebriates," by Dr. Wardner; and "On the Statistics of Inebriety," by Dr. Parker.

These papers, as might be expected, vary extremely in their value. Dr. Davis, of Chicago, after noticing experiments on alcohol by Boker (*sic*) and Boucherdet (*sic*), tells us that the fact that "its presence in the system reduces the temperature was first fully established by the result of a series of experiments performed by myself in 1850." "The tests were applied to both wine and whisky,"—by which we presume he means drinkers of those fluids. We fear that this gentleman's facts are not more accurate than his grammar. For example, he tells us that "the eminent Dr. Todd testified strongly to the sustaining and beneficial influence of alcoholic drinks in the low forms of fever, yet statistics show that in the London fever Hospitals, with which he was connected, the ratio of mortality increased *pari passu* with the increased use of alcoholic drinks as remedies." If these pages should by chance reach the eyes of Dr. Davis, we trust he will name the fever Hospitals he refers to and give his authority for his statement regarding the increased mortality. Our English Physicians will, however, doubtless thank him for the information that "fevers placed in tents, with plenty of fresh air and nourishment," give "a mortality of only one in seventeen," when they have clearly elaborated the meaning of that very remarkable statement. We trust that the printer is responsible for the "censorium" to which the morbid impressions of drunkards are transmitted.

There is much that is worth reading in the essay on "The Philosophy of Intemperance," but Dr. Parrish, like Dr. Davis, takes occasional liberties with the English language. If we allow him to speak of "scientists," "extremists," and "hereditation," we must take exception to "pravity," nor can we admit that there are "qualities" which yield intoxicants (see page 26). Amongst the causes of intoxication he especially notices "constitutional susceptibility" and "hereditary predisposition," and then proceeds to discuss, without any very definite mode of arrangement, "the Law of Inebriety," "the Relation of the Inebriate to Society," "Intemperance as a Disease," "Temperance Societies," "Inebriate Institutions," and "Insanity in connexion with Drunkenness."

A single paragraph will suffice to show the character of the paper on the "Disabilities of Inebriates," communicated by the Inmates of the Pennsylvania Sanitarium. These unfortunate persons "respectfully submit six propositions for the consideration of the Association," one of which is—"That our sorrows and sins are made texts for sermons; our symptoms and misfortunes are caricatured by lecturers and performers; and we are exposed alike to odium and ridicule, which has a most depressing and damaging effect upon our mental and moral nature." We may add that (probably in consequence of a clergyman being one of the members of the Association) they propound the serious theological question:—"Were they upon whom the tower in Siloam fell the worst of criminals?" and that they conclude their astounding paper with the expression of a hope "that they, whose possession has seemingly more than equalled that of the ancient maniac of the tombs, may yet be found sitting at the feet of Divine Wisdom, clothed, and in their right minds." As far as we can understand the nature of the wish expressed by these *modern* maniacs, we heartily reciprocate it; but we cannot help expressing our opinion that the publication of this paper does not redound to the credit or good sense of the Association.

Mr. Lawrence's "Experiences at the Washingtonian Home," and Dr. Albert Day's paper on "Inebriate Asylums as they relate to Questions of Social and Political Economy," are the most valuable of this miscellaneous collection of memoirs. Both these gentlemen refer to the terrible prevalence of drunkenness at the present day amongst women of all classes—from the poor and degraded to the rich and respectable; and while the former advocates special asylums for females, the latter states that in the Greenwood Institution, Massachusetts, which he established on leaving Binghamton in the spring of last year, ladies and gentlemen sat at the same table, "and participated in becoming social amenities," without any apparent drawback. The Rev. J. Willett stated, in confirmation of Dr. Albert Day's view, that in the King's County Home, of which he is Superintendent, both sexes are included under the same roof.

Dr. Parker's article on the "Statistics of Inebriety" is, perhaps, as complete as we have any right to expect. After treating of the relative chances of duration of life in temperate and intemperate persons at the ages of 20, 30, and 40, and the annual loss in a money point of view caused by alcohol in the city of New York, he proceeds to consider the proportion of cases cured. "During the past two years [*i.e.*, from November, 1868, to November, 1870, during eighteen months of which Dr. Day had charge of the Institution] 476 patients have been treated at Binghamton, of which number 163 have remained well since their discharge, 94 have relapsed, and 219 have not been heard from. This gives 63½ per cent. of those heard from that have remained cured."

From the report of the Sanitarium at Media, Penna., drawn up by the Superintendent, Dr. Parrish, we learn that 168 patients have been admitted since its opening in June, 1867, and that sixty-seven, or about 40 per cent., were cured, who (as he calculates) are a saving each year to the State of 133,200 dollars.

Mr. Lawrence, who succeeded Dr. Day at the Washingtonian Home at Boston, thinks that 33⅓ per cent. of the patients are *permanently* cured, and a large percentage of the remainder greatly benefited.

Of the patients admitted into the Inebriates' Home in Brooklyn, the Rev. Mr. Willett believes that fully one-third recover permanently.

Of seventy-one patients discharged from the Washingtonian Home in Chicago, Dr. Wardner reports thirty-nine cured, eight doubtful, fifteen hopeful, and nine hopeless.

In one of our former articles on this subject, we showed that, taking an average of twelve years' experience, the cures effected in the cases treated by Dr. Day at the Washingtonian Home and at Binghamton amounted to above 60 per cent. We learn from the present paper that, during the short time the Greenwood Institute had been opened (scarcely six months), sixty patients had been admitted, "about 70 per cent. of whom he believes he shall cure, they being from the better class of cases."

We may observe, in conclusion, that no less than six institutions for the reception and treatment of drunkards were represented at this first meeting of the Association by Medical Superintendents, that the speedy opening of the Maryland Inebriate Asylum is announced, and that other similar institutions are in contemplation. There are probably other refuges in existence in the western and southern States, of which we have no personal knowledge. It is only by the perusal of Mr. Whymper's volume of "Travels in Alaska" that we know that, for some years back, such an establishment has been doing good work at San Francisco. The experience of our American brethren has placed their utility beyond all question.

PROPOSED JOHN HUNTER MEMORIAL WINDOW.

There is a subscription set on foot to place a memorial window to John Hunter in the new parish church which is being erected at Kensington. John Hunter's country house, "Earl's-court," stands in the parish of Kensington, where it remains but little changed to this day. Mr. Frank Buckland, whose part in burying John Hunter in Westminster Abbey we all remember, has been pleading for subscriptions to the John Hunter window in the number of *Land and Water* for July 8. He gives an account of a pilgrimage he made to Earl's-court, which is so full of interest that we cannot refrain from reproducing a part of it.

"John Hunter built this house himself. It was originally a plain brick building, in the form of a square; but as his practice increased he added to it on both sides. It is just the sort of house the great anatomist would have built. There is not the slightest attempt at effect or useless ornamentation. His favourite room was evidently the large room on the ground-floor, looking out on the park. In this room there is plenty of space for his papers, books, instruments, microscopes, and all the paraphernalia of a working physiologist. Mrs. Hunter's rooms were evidently upstairs, and the panels of the doors are ornamented with drawings painted in water-colours. No doubt John Hunter had as great a horror of feminine interference in his studio as have many philosophers of the present day. All round the house is a covered cloister dug about six feet into the earth. I expect John Hunter had two reasons for making this cloister, which is very like a prolongation of areas to the London houses. Firstly, this cloister would keep the house dry, and, secondly, it would form a grand place for keeping live stock. I have no doubt, therefore, that in this cloister he kept many of his smaller animals used for experiments, such as dormice, hedgehogs, bats, vipers, snakes, and snails, for his researches on torpidity; and hutches full of rabbits, whose unfortunate fate would be to have their ears frozen to prove points connected with blood-circulation.

"It would also be a good place to hang up skeletons, or dry preparations, or to macerate bones. Nobody more than myself knows the value of an area—I am sorry to say my own area in Albany-street is terribly small—to a London house, especially when one has a great many dissections on hand; and I have no hesitation in saying that John Hunter made a great many of his preparations now in the Museum of the College of Surgeons in this cloister-like area.

"The entrance into these cloisters leads through a subterraneous passage, very dark, and like an enlarged fox's earth. This passage, again, I warrant, was one of Master John's contrivances, for through his burrow he could wheel a tidy-sized cart or truck, and drag into his den anything, from a giant's body up to a good-sized whale; and I have no doubt that the *Balænoptera Rostrata*, 17 ft. in length, described in his works on whales, was once carted down this passage into the area, to be cut up, and figured, and described. The entrance to where the stables originally stood was not far from this burrow, and John could easily have whipped anything into the stable-yard down his fox's earth and into the area, without Mrs. Hunter knowing anything about it; and I'll be bound to say she used occasionally to 'lead him a life,' and kick up a row if any preparation with an extra effluvium about it was left on the dissecting-table when the great Surgeon was obliged to go out on his Professional duties.

"At one end of his burrow there is a mysterious-looking door, which leads into a small room, now used as a general receptacle for rubbish. Up in the corner were a lot of bones. I eagerly examined them, but they were only kitchen bones. In another corner of this room there is a largish-sized copper boiler standing out of the wall. Two doors fit on the top of this boiler, which close it up quite tight. Ah! if this old boiler could only tell what it had boiled! *One* giant, we know, was boiled up in it, for in 1787 John Hunter wrote as follows to Sir Joseph Banks: 'I have lately got a *tall man*. I hope to be able to show him to you next summer.' This tall man was no doubt O'Brien, the Irish giant, whose skeleton is now in the Hunterian Museum at the College of Surgeons, alongside the skeleton and coffin-plate of 'Jonathan Wild,' the great thief-taker of Jack Sheppard's time. O'Brien (or Byrne) was said to be over 8ft. high. In the *Annual Reporter Chronicle*, June, 1783, we read:—'The giant expressed an earnest desire that his ponderous remains might be sunk out at sea; but if such were his wish it was never fulfilled, as Mr. Hunter obtained his body before interment of any kind had taken place.' Elsewhere we read:—

"'In the dead of night the body was removed in a hackney coach, and having been carried through several streets, was transferred to Hunter's own carriage, and conveyed immediately to Earl's-court. Fearing lest a discovery should take place, Hunter did not choose to risk the delay which the ordinary mode of preparing a skeleton would require; accordingly, the body was cut to pieces, and the flesh separated by boiling; hence has arisen the brown colour of the bones, which in all other respects form a magnificent skeleton.'

"John Hunter is said to have given £500 for the body of O'Brien. I doubt if he did anything of the kind, for I well recollect old Mr. Clift (who was John Hunter's assistant), telling me when a boy a very different story. In Bristol Museum, if I recollect right, there is, or was, a stocking of O'Brien hanging against the wall. If I recollect right the inscription says, 'This is the stocking of O'Brien, the Irish giant, who *lies buried in the Cathedral churchyard*.' At all events, there can be no doubt that O'Brien was wheeled down John Hunter's fox's earth, cut up in the area, and boiled down in John's universal preparation-maker.

"As I searched about in the copper, I fancied the great John behind me, with his high cheek-bones, bright intelligent eyes, expressive eyebrows, and white hair curled behind, and his hands in his pockets, smiling his satirical smile at me, and saying, 'So, Master Frank, there you are again; you found me in the vaults of St. Martin-in-the-Fields, and got me buried in Westminster Abbey, twelve years ago, and now I find you actually in my house investigating my private skeleton-making copper. Never mind, my son; keep up my memory, and perhaps I will give you a wrinkle that may be of use to you about salmon, from my notes, a cartload of which (as Sir William Fergusson rightly said, in his last oration in my honour at the College) Sir Everard Home burnt, and which are now lost to your generation.'

"Close to the boiler are the old (now tumble-down) pig-styes, and it was doubtless in these very pig-styes that John Hunter kept the little pigs which he fed with madder, so as to cause their bones to become red. (See preparations in the College of Surgeons.) This was doubtless also the place referred to when he wrote—'I gave pigs a preference to any other animal, as being easily managed, and breeding perfectly well under the confinement necessary for experiments. I selected a sow, and cut a slit in her ear to distinguish her from the others.' Hence his valuable paper on the functions of the ovaria.

"In the farmyard by the pig-stye, no doubt, were kept the cocks and hens whose spurs John Hunter cut off and planted into their combs; likewise the ducks used for the table, and also for experiment, for he writes:—'I took two ducks, and fed one with barley, the other with sprats, for about a month, and killed both at the same time. When they were dressed,

the one fed wholly with sprats was hardly catable, it tasted so strongly of fish.'

"Above the stable was the pigeon-house, in which lived the pigeons, from the observation of which he was enabled to write as follows:—'During incubation, the coats of the crop in the pigeon are gradually enlarged and thickened, like what happens to the udders of females in mammalia in the time of uterine gestation. If we allow either of the parents to feed the brood, the crop of the young pigeons, when examined, will be discovered to contain the same kind of curdled substance as that of the old ones, which passes from thence into the stomach, where it is to be digested.'

"This, then, is the philosophical explanation of the vulgar story of 'pigeon's milk.' The poor cocks and hens, the turkey-cocks and the geese in the farmyard, the eagles, owls, and hawks in the hayloft, and the ostrich in the cow-house, were all likewise subjected to experiment to prove that the air-cells in birds' bones and feathers communicated with the lungs, for he writes:—'I next cut the wing through the os humeri in another fowl, and, tying up the trachea, as in the cock, found that the air passed to and from the lungs by the canals in this bone. The same experiment was made with the os femoris of a young hawk, and was attended with a similar result.' In the stable-yard were chained up wolves, jackals, and dogs, whence he obtained those curious hybrids, 'one of which, being three-parts dog, I gave to my friend, Mr. Jenner, of Berkeley,' likewise boxes for the accommodation of the opossums, 'which I have often endeavoured to breed in England. I have brought a great many, and my friends have assisted me by bringing them or sending them alive, but I could never get them to breed, so that I am left to conjecture as to many parts of their economy.' Here also was in his kennel the dinglo, of which John says, 'he is capable of barking, although not so readily as a European dog; he is very ill-natured and vicious, and snarls, howls, and moans, like dogs in common.' In the stables he doubtless kept the donkeys, and the mules, and the celebrated free marten, 'which I had from Benjamin May, Esq., of Denham, near Uxbridge, who knew my anxiety to ascertain this point.' In the stables also were possibly stalled the zebra and the mare by which he carried out the experiments on the reproduction of forms, marks, and colours in animals, by crossing a quagga with a mare, which mare continued, after a lapse of five years, to reproduce in three successive births *hippo-tigrine* markings.

"After Merriman and myself had examined the house, we went into the field in front of John Hunter's sitting-room. In the middle of the field there is a hollow. This was formerly a pond, in which John Hunter tried experiments to force Scotch river mussels to form pearls after the manner of the Chinese experiment.

"Close to the mulberry tree at one corner of the field is an artificial mound of earth very much the shape of an ancient burial tumulus such as we see on the Downs. The west side of this mound has a passage in it leading to three cellar-like vaults. This is even now called the 'Lion's Den,' and there can be no doubt that John Hunter used to keep his lions and leopards in this place.

"His sitting-room windows face this den, so that he could readily watch the animals from his easy chair. This is doubtless the den from which his leopards escaped, the incident of which is thus recorded:—'Two leopards broke from their confinement, and got into the yard with the dogs; a fierce encounter immediately commenced, the noise of which alarmed the neighbourhood, and quickly brought out Hunter to inquire into its cause. He found one of the leopards engaged with the dogs, whilst the other was making his escape over the wall, and instantly, though quite unarmed, he ran up and laid hold of both the animals, which fortunately submitted to be led back to their den and secured. When the danger was over, however, he became so agitated at the recollection of it that he fainted.'

"I closely examined these dens, but could find nothing but a very old decrepid wheelbarrow, which might have been John Hunter's from the look of it. In the largest den, however, I found a post and iron chain, such as are used for tying up cattle. The block of wood at the end of this chain is very old and worm-eaten; the chain also was very much worn. I think there can hardly be a doubt that this was the post to which John Hunter used to tie up the little bull which the Queen gave him, and which little bull nearly killed the great John; for the story goes that one day when wrestling with the bull the beast knocked him down, and would have gored him severely had not one of the servants driven the animal off with a stick.

"On the top of the 'Lion's den' there is a little rampart made of bricks and tiles, after the fashion of the top of a castellated tower. The legend is that John Hunter kept a gun here, which he used to fire off occasionally—a sort of private fortress, in fact. Gun or no gun, there is an excellent look-out from the top of the 'Lion's den.' In John Hunter's time Earl's-court was quite in the country, and from the 'Lion's den' he would have had a good view of Westminster Abbey, little thinking he would ever be buried there. Near this place is a gateway, but neither I nor Merriman could make out whether this was a 'dummy' gateway or intended for use; but, depend upon it, John Hunter put it there for some purpose. His town house was situated about the middle of the eastern side of Leicester-square, and extended through into Castle-street, and here he established his museum. He used to drive a pair of bay-stone horses to and fro from Leicester-square to Earl's-court. Foot writes:—'On being told of his death at St. George's Hospital, on the 16th of October, 1793, on the same day I recollect having seen his bay-stone horses returning through Piccadilly home without their master, and this circumstance introduced to my reflection the sympathy which Virgil has attributed to the war-horse of young Pallas in his funeral procession':—

> 'Post Bellator Equus positis insignibus Æthon
> It lachrymans."

"As I stood on the 'Lion's den,' I imagined this same carriage, with the high-stepping bay stallions, their coachman in tears, turning in for the last time to the very gateway after Mr. Foot had seen them in Piccadilly on October 15, seventy-eight years ago, and I pictured to myself the consternation and grief spread like wildfire through the establishment by the sad news of the master's sudden death. From that day the glories at Earl's-court then set. There can never be another John Hunter.

"I have thus endeavoured to describe Earl's-court, the residence of our great and illustrious founder. During my visit there I almost imagined that I was in the presence of the great man himself, so little is the place changed. I wish, therefore, to call the attention of my brother Medical men, and the scientific world in general, to the above facts. Mr. Merriman has kindly informed me that he will send to anybody who asks for it a picture of John Hunter's house and the 'Lion's den' as they now stand, from drawings made by Mr. Arthur Roberts.

"Earl's-court may disappear, but the memory of John Hunter will still be kept up in Kensington by the memorial window which it is proposed to erect in the new church. The larger the subscriptions, the more beautiful will be the memorial."

The subscription-list has already been headed by Sir William Fergusson, Mr. Charles Hawkins, Mr. Paget, and other distinguished members of the Profession. Individual subscriptions are limited to twenty-one shillings, and will be received by Messrs. Frank Buckland, 4, Old Palace-yard, and John J. Merriman, 45, Kensington-square, Kensington, W.

REVIEWS.

Practical Lithotomy and Lithotrity; or, an Inquiry into the Best Modes of Removing Stone from the Bladder. By Sir Henry Thompson, Surgeon-Extraordinary to H.M. the King of the Belgians, Professor of Clinical Surgery, and Surgeon to University College Hospital. Second Edition, considerably Enlarged. London: J. and A. Churchill. 1871.

It is not from any want of appreciation of the value of this work that we have not sooner noticed the appearance of a second edition. The author has won for himself so distinguished a reputation, that of late years he has enjoyed very exceptional opportunities of studying the treatment of cases of vesical calculus—opportunities which, being afforded by his Professional brethren, he regards "as a precious trust, devolving upon him an onerous duty to them in return." Any carefully made deductions from so vast an experience command an attentive hearing and a warm welcome, and we are glad to observe that in this new edition the whole subject has undergone careful revision. Many valuable hints are added for the treatment of occasional difficulties, and the question of the comparative merits of the two procedures is considered with a completeness which is as new as it must be welcome to Surgical readers. Besides numerous alterations and additions in the body of the work, three new chapters have been added upon the results of lithotomy and lithotrity, and upon the employment of the latter procedure in cases complicated by serious organic disease, as stricture of the urethra or grave disease of the kidney or bladder. It is specially

interesting to note that a strictured urethra, which has hitherto been regarded as an insuperable obstacle to lithotrity, may now be regarded with less dread. We are not sure that Sir Henry Thompson was the first to crush for stone with a stricture complicating the case, but he has himself had four or five examples with excellent results. The stricture is temporarily relieved by means of "continuous dilatation" during the three or four days preceding the crushing. Perhaps the most important addition to the volume is an appendix giving a brief report of 204 adult cases of lithotrity occurring consecutively in the author's practice from 1863 to 1870. Although the mean age of the patients was 61, and although two or three of the fatal cases were crushed simply because lithotomy (the preferable operation) was refused, the mortality was only 13 in the 204, constituting a rate of recovery of 93½ per cent. With so favourable an experience as this, it is little wonder that the author regards lithotrity as an eminently successful operation; and we would recommend all those who have occasion to treat from time to time patients with stone, to peruse carefully this new edition of the most practical modern work on the subject.

The Medical Jurisprudence of Insanity. By J. H. Balfour Browne, Esq., of the Middle Temple, Barrister-at-Law. London: J. and A. Churchill, New Burlington-street. 1871.

We are always ready to welcome a work on this important subject; and although it has received some attention from the pens of our own Profession, as in Dr. Taylor's admirable work upon Medical Jurisprudence, Dr. Guy having also in his "Forensic Medicine" devoted an important chapter to unsoundness of mind and its legal relations—and, besides these, Dr. Ray, an American, and Dr. Pagan, a Scotchman, having written works exclusively on this subject—we have not until this instance been favoured with a similar treatise by a lawyer. This work, written as it is by a lawyer who has undoubtedly profited by his somewhat exceptional opportunities of becoming acquainted with the phases of mental disease, is peculiarly interesting and worthy of some consideration. It is of the utmost importance to place the questions with regard to the legal relations of persons who are insane upon a definite basis, and this work will do much to bring about this desirable end. That the study and treatment of mental disease must be looked upon and dealt with in the same manner as that of fever or any other bodily ailment, has only of late years dawned upon our Profession. For some time there seems to have been an impression that no special training was necessary to enable a Medical man to deal with insanity. That time has passed away, and there are now, we are glad to say, lectureships of insanity in connexion with almost all our Hospitals. Owing to the fact that this special education has been neglected, the subject has been only partially understood; and, in consequence of this defective knowledge, the evidence of Medical men in courts of law in relation to mental unsoundness has been in many cases of a very unsatisfactory nature. If a man does not understand a thing, it is utterly impossible for him to explain it clearly to others. This has led to a constant war between Medical men and lawyers with regard to all questions of insanity; and while the former have asserted that the legal definition of insanity was narrow and absurd, the latter have satisfied themselves by saying that the Medical definition was all-embracing and confused. There is possibly some foundation in both opinions, though it would certainly require more than an ordinary intellect to embrace the two.

The author has endeavoured, and not without success, to describe insanity in such a manner as to enable members of both professions to understand what it really is, and to arrive at some definite conception as to the various forms in which it is wont to appear. His work is certainly calculated to be of use to Medical men, as well as of great service to his own profession, which is conservative of much that is bad, as it has been most conservative of the dicta of some of those who have spoken of insanity without knowing anything about it. Thus, Lord Coke's description of the four kinds of men who may be looked upon as *non compos mentis*, although it is absurd in every particular, still finds acceptance in the eyes of lawyers, and a place in every legal work which has to do with lunacy and the relations of lunatics to the State. So Lord Lyndhurst's definition of irresponsibility in connexion with mental aberration—which no one who knew anything of mental disease would admit to be in any way correct—is still quoted by lawyers and judges with approval. If the Medical Profession has been at fault, as Mr. Balfour Browne repeatedly asserts, the legal Profession is not free from blame. However that may be, this book will do much to obviate the necessity of such censure in the future. In many respects this work has merit; the author understands the subject well, for the book throughout is written with considerable force. This force, however, seems occasionally to be exercised wantonly. He sometimes delights in beating the air. A sound drubbing does the air no harm, but no good. Mr. Browne's momentum is sometimes too great for the work he has to do. It seems unnecessary to keep a pistol with which to snuff a candle, however excellent a shot you are; snuffers will do as well, and make less noise. Mr. Browne sometimes seems to forget he is writing a "practical treatise," and he indulges in a good deal of cheap vituperation about the "incompetent Medical Profession," which might have been omitted with advantage. Still, the work is philosophical, and contains much that will be useful, even to those who have made a study of insanity. There is a good deal that is original, besides those half clever conceits which abound in it, and which in the eyes of some will seem ornaments, while in the eyes of others they will appear blemishes. The author starts with the legitimate assumption that a man should be allowed to do whatever he is capable of, and that he should not be punished for any action which he could not possibly avoid. He examines with particular care the condition of choice in human conduct, and shows in what cases insanity will interfere with this freedom, and how such interference with healthy function should modify the relations which a man bears to the State and the community in which he lives. In regard to the much-disputed questions of partial insanity, whether moral or intellectual, his exposition and remarks are clear and sound. The difficult questions which arise in connexion with this subject have never been better dealt with, and the distinction drawn between insanity and eccentricity in the chapter upon the legal relations of moral mania is an excellent piece of psychological analysis.

One thing is to be remarked in connexion with this work, and that is the willingness of the author to regard much as insanity which members of his profession have hitherto been in the habit of regarding simply as crime; and yet he draws a clear and easily appreciated distinction between moral insanity and moral turpitude; and it is almost the first time that this distinction has been satisfactorily drawn. That this is a matter of much importance will be evident to those who have had any experience in the criminal practice of our courts of law, where only too often those who are, in the truest sense of the term, guiltless of the crimes with which they are charged are condemned to useless and unjust punishment, which must aggravate the diseases under which they labour.

We particularly commend to the younger members of our Profession the last chapter in this work—"On the Examination of Persons supposed to be of Unsound Mind"—for the most lamentable mistakes are often made from the want of a proper knowledge of examination, and the most absurd nonsense written which has no bearing whatever on the mental condition of the patient.

There was certainly a necessity for such a book as that which Mr. Balfour Browne has written, and there can be little doubt but that it will meet with the appreciation it deserves.

GENERAL CORRESPONDENCE.

"QUICK WITH CHILD."

Letter from Dr. C. R. Bree.

[To the Editor of the Medical Times and Gazette.]

Sir,—One word to Mr. Weightman. A child in utero is alive from the first day of conception. Therefore, his remark, "for barely *with child*, unless it be *alive* in the womb, is not sufficient," displays the truly horrid state of the law. For what is the information required? To stay execution. Women who have gone half their time feel the child move, and hence they are termed "quick with child." But at any time previously to the woman "quickening," she contains in her womb a human living being, that has committed no crime, and to kill whom, whether done by the law, judge, jury, or hangman, is essentially a murder.

I reciprocate all Mr. Weightman says about the two professions working harmoniously together. But surely such harmony cannot be interfered with by the expression of a Medical opinion that a dozen old women are totally incapable of performing the solemn and important duty of deciding whether two human beings or one are to be hanged. It is often a most difficult thing to discover whether a woman is with child or not, and eminent and experienced men are sometimes deceived.

Surely a dozen old gossiping women are not a fit tribunal to decide such a question.

The law requires immediate alteration. No woman should ever be allowed to say (for that, I contend, is the sole question) —is there or is there not a live child in utero. The quibble about the period of quickening is not worth a moment's thought. A child may not be "quick," according to this meaning, on Tuesday, but it may on the Wednesday. It may have "quickened" weeks, and not one old woman in twenty could prove it. All this shows the absurdity and positive injustice of the present state of the law. We have several Medical men in Parliament: why do not they have the disgraceful state of the law amended? A "living child" is *always alive in utero*. Excuse the apparent paradox. It is necessary to be paradoxical sometimes, or people will not see the difference between the ignorance of barbarous ages and the real truths of science. The "quick with child" notion ought no longer to disgrace our statutes.

Colchester, July 29. I am, &c. C. R. Bree, M.D.

REPORTS OF SOCIETIES.

OBSTETRICAL SOCIETY OF LONDON.

Wednesday, July 5.

Dr. Braxton Hicks, F.R.S., President, in the Chair.

Dr. Hugh Miller (Glasgow), Mr. Robson Roose (Brighton), and Mr. Fred. Turton (Wolverhampton), were elected Fellows of the Society.

Mr. Curgenven exhibited a Knotted Umbilical Cord.

Dr. Protheroe Smith showed a new Expanding Cylindrical Speculum Uteri. It consists of a truncated cylinder divided longitudinally at its upper third into four hinged blades. At the centre of each hinge a vertical sliding-rod is affixed, having a deep notch at its inferior extremity. The base of the cylinder is surrounded by a movable ring or rim; within are placed four small wedge-shaped springs corresponding with the notches already mentioned as belonging to the vertical rods. This ring is rotated by the handles of the speculum when pressed together, the effect being to force the wedge-shaped springs within the notches of the vertical rods, and thus, by drawing down the rods, to produce lateral expansion of the blades. One or more of the blades may be left stationary whilst the others are expanded, or any of the blades may be made separately to collapse or expand at will.

Dr. Heywood Smith said that this speculum, when expanded, not only drew forward the cervix uteri, but revealed the whole of its external aspect, as well as afforded a free view of the *cul de sac* all round the uterus.

Dr. Whitehead exhibited two instruments for producing vesication previous to vaccination, the one with ammonia, the other with boiling water or the flame of a spirit-lamp.

Dr. Heywood Smith exhibited a Marine Vaginal Irrigator, which had been given him by an instrument maker. It was made of gum-elastic, closed at one end, and closely perforated with holes to permit the passage of the sea-water into the vagina during bathing.

Dr. Barnes said a similar contrivance had been shown at the exhibition of obstetrical instruments.

Dr. Barnes read a note on the Rupture of an Intra-peritoneal Hæmatocele into the Peritoneal Cavity. One case was recorded by Dr. West, and another as having occurred in Seyfert's practice; but the occurrence was so rare that Dr. Barnes adhered to the opinion expressed by him at the preceding meeting—that puncture was required only when toxæmic symptoms, consequent on an unhealthy change in the blood-clot, manifested themselves.

Dr. Protheroe Smith related three cases, in each of which, after the sudden disappearance of a retro-uterine tumour, severe peritoneal symptoms became developed.

Dr. Playfair read the particulars of a case of Sudden Death in the Puerperal State. Although no post-mortem examination was permitted, the symptoms were characteristic of death from pulmonary thrombosis. The patient was a typically healthy woman, but when convalescent from her confinement had a slight attack of pleurisy. Dr. Playfair believed that this increased the hyperinosis already existing, and he concluded that inflammatory affections in the puerperal state, though they may not be severe in themselves, were for the above reason to be much dreaded.

Mr. Scott had in his recollection three cases proving the danger of the occurrence of inflammation in a system previously debilitated by illness. In each of the cases peritonitis supervened, and death occurred suddenly after slight exertion in bed. On a post-mortem examination, a distinct clot was found in the pulmonary artery.

Dr. Routh asked if the heart had been examined, as the symptoms might have been those of cramp or spasm of the heart. In such a case it would probably be advisable to prescribe alkaline salts, such as the subphosphate of soda, and especially ammonia.

Dr. Wiltshire inquired whether the urine had been examined, seeing how frequently pleurisy was a complication of Bright's disease. The hyperinotic condition of the blood was probably suddenly increased by the hearty breakfast of which the patient had partaken shortly before death.

Dr. Tilt read a paper "On the Diagnosis of the Least-known Varieties of Uterine Inflammation." The author admitted that all the uterine tissues were inflamed in super-acute, in acute, and in chronic metritis, and he explained by what signs these three varieties of metritis might be recognised, mentioning that while the acute variety was very rare, the chronic was a disease of frequent occurrence. Dr. Tilt believed that one of the uterine constituents could not be long inflamed without the adjacent tissues becoming more or less diseased, and that in the cases called internal metritis or endometritis, because inflammation of the lining membrane of the womb was their leading pathological condition, there was often a thickening of the uterine walls, to be explained by congestion in most cases, and occasionally by inflammation. In the more chronic stages of internal metritis the uterine walls were said to become thinner, and to be softened by fatty degeneration—a circumstance that should teach caution in the use of the uterine sound. The author discussed the symptoms of internal metritis, and he was thereby led to deny that fundal metritis —that is, inflammation of that portion of the endowomb which lies between the insertion of the Fallopian tubes—had any particular symptoms by which it could be distinguished from ordinary cases of internal metritis. Dr. Tilt asked the Fellows to compare Dr. Routh's cases of fundal metritis with those he had himself published in his work on uterine inflammation, promising that they would find the same liability to metrorrhagia and to purulent discharges capable of becoming intensely acrid, the same tendency to obstruction to the free exit of the fluid secreted in the body of the womb, the same kind of very acute uterine pain aggravated by any kind of pressure, whether made by the finger or the uterine sound. He reprobated the use of the latter in acute metritis.

After some remarks by the President,

Dr. Playfair, although he did not doubt that often the body of the uterus was largely involved, considered that Dr. Tilt underrated the importance and frequency of morbid conditions of the mucous membrane lining the cavities of the cervix and uterus. Grave alterations were very generally present in such portions of the mucous membrane as were accessible to sight, and it was reasonable to infer that by continuity of tissue similar alterations existed in the more deeply seated portions of the mucous membrane. He believed that all who had tried intra-uterine medication in such cases would bear witness to its remarkable curative power. The application was easy, as the os uteri was always morbidly patulous, and one of the first symptoms of improvement was the closure of the os.

Dr. Henry Bennett said that arrest of uterine involution was much more frequently the cause of an increased size of the uterus in child-bearing women than actual inflammation. It was also a frequent mechanical cause of uterine displacements and flexions of all kinds. For many years he had carefully weighed the uteri of all the child-bearing women who died under his care, and found that in all who presented lesions of the cervix subsequent to parturition the uterus had not returned to its natural weight. Dr. Bennett thought Dr. Tilt was scarcely warranted in saying that internal metritis in non-parturient women was a common disease. If confounded with inflammation of the mucous membrane lining the cervical cavity, of course it would appear to be common. The principal diagnostic signs of internal metritis in his experience were—a patulous state of the os internum, an aggrandised state of the uterine cavity, and a muco-sanguineous discharge. The inflammation, when it extended to the uterine cavity, seemed to paralyse and relax the cervical muscular fibres, which constitute what he had termed the sphincter of the uterine cavity.

Dr. Routh said that in these cases of enlarged uterus, with internal metritis, it was the fundal portion which increased; and he believed it to be contrary to clinical observation to deny that this part might be exclusively attacked with inflammation. The nervous supply of the fundus uteri, derived from the renal plexus, and being indirectly connected with the semilunar ganglia, was *à priori* evidence that we might expect more general and severe symptoms than when the body of the uterus only or the cervix was attacked. He could not agree with Dr. Bennett, that because disease of the uterus was cured by active measures to the cervix, therefore the disease was in the cervix. Blistering or cauterising the cervix relieved, not only the cervix, but the whole organ. The internal os was occasionally liable to severe inflammatory lesions, attended with agonising pain; and such cases were, he believed, incurable.

Dr. Fordyce Barker, of New York, assented to most of the statements and doctrines in the paper; but, although it was generally believed that acute non-puerperal metritis was a very rare affection, he suggested that cases of sudden suppression of the menses, attended with intense uterine pain and other pelvic symptoms, with fever, quick hard pulse, headache, and sometimes more or less cerebral disturbance, were not very rare, and that they really were cases of acute metritis, which terminated frequently by resolution, leaving no permanent lesion of the organ. Dr. Barker could hardly understand the term fundal endometritis. The distinctions between inflammation of the lining membrane of the cervix and that of the body of the uterus could readily be understood, as the histological and physiological differences between the two membranes were now accepted in science. But if the term fundal endometritis implied a difference which could be recognised and required different therapeutical measures from chronic inflammation of other parts of the body of the uterus, he could not as yet comprehend it. He would ask whether pain was not the most fallacious of all symptoms in establishing the existence or the character of uterine disease. Again, as regards the pain produced by the introduction of the sound in the so-called fundal endometritis, was it not the usual fact that on the first introduction of the sound, when the point reached the fundus, pain (sometimes very severe and persistent) was complained of; while in the same persons a tolerance of the instrument was acquired after it had been used a few times?

Dr. Protheroe Smith fully recognised the active metritis described by Dr. Barker. Regarding the uterine canal as a whole, consisting of vagina, cervix uteri, body, fundus, and Fallopian tubes, there were, he believed, corresponding differences in the symptoms marking the occurrence of inflammatory and catarrhal affections of these different parts. When the tubes were primarily affected, the discharge was watery and colourless, and ejected spasmodically with painful expulsive efforts; whilst, when the cavity of the fundus and body was attacked, it would be productive of considerable supra-pubic pains and irritable bladder, and at first the discharge would be thin and often tinged with blood. Again, the glairy secretion, tumefaction, and everted uterine lips marked similar affections of the cervix. Yet all these, if allowed to run their course, soon merged into one disease affecting the entire canal.

Dr. Tilt, in reply, said that he did not see how he could express himself more strongly than he had in appreciation of the value of treatment directed to the cervix; but he often found that this was insufficient to cure chronic metritis and internal metritis, and he believed that the future improvement of uterine pathology lay in the study of the inflammatory diseases of the body of the womb. With regard to his dissent from the views entertained by Dr. Routh respecting fundal endometritis, Dr. Tilt said the whole question was now placed before the Profession, and he confidently left it to the decision of future observers.

OBITUARY.

JOHN WHITE, M.R.C.S.E.

We regret to have to announce the death of Mr. John White after a short illness, on July 28, at his residence, Storey's-gate, Westminster, at the age of 73 years. Mr. White became a Licentiate of the Society of Apothecaries in 1819, and a Member of the Royal College of Surgeons (England) in 1821. His practice in Westminster extended over a period of more than forty years. Added to considerable Professional knowledge and skill, he had also acquired for himself a name for kindly sympathy and courteous urbanity amongst all classes of his patients, by many of whom he was warmly esteemed and respected as a sincere friend, and in whose memory he will long hold a position it will be hard, if not impossible, to efface.

MR. CHARLES R. GODFREY, R.N.,

Studied at St. Bartholomew's Hospital under Messrs. Paget and Skey, and Dr. West. He entered the service in 1855, as Assistant-Surgeon on board H.M.S. *Duke of Wellington*, and was present at the bombardment of Sweaborg, for which he received a medal. He served in the *Tyne*, the *Spy*, and the *Sealark*, during which period he was stationed off South America. He was appointed to the *Euryalus*, March, 1862, attached to the naval force engaged in the capture of Kahding, China, under Sir James Hope. He served in the *Euryalus* at the operations before the batteries of Kagosimo, Japan, for which he was commended by Admiral Kupar, and promoted November 9, 1863. He returned in charge of the *Vulcan* (*vice* Dr. Mitchell, invalided). November, 1864. Appointed to the *Victory*, May, 1865, and to the *Barracouta*, May, 1866, for service on the North American and West Indian stations. He returned January, 1869, was appointed to Melville Hospital, October, 1869, and died of heart disease, July 25, 1871.

MEDICAL NEWS.

Royal Colleges of Physicians and Surgeons, Edinburgh.—Double Qualification.—The following gentlemen passed their first Professional Examinations during the July sittings of the examiners:—

Arnold, Howard, Antrim.
Baird, James, Alloa.
Chambers, Theodore Stewart, Jamaica.
Flamstead, William, Bengal.
Goodenough, William Hessman, Carlisle.
Jackson, Richard, Lancaster.
O'Hanlon, William Palliser, Bandon, Cork.
Steedman, Daniel M'Kenzie, Cape Town.

The following gentlemen passed their final examinations, and were admitted L.R.C.P. Edin. and L.R.C.S. Edin.:—

Anderson, William, Glasgow.
Bonnar, Thomas Walker, Dunfermline.
Clarke, Arnold, Cavan.
Hindle, James, Lancaster.
Jackson, Alfred, Yorkshire.
Kane, John, Adelaide.
Keys, Robert Atchison, Strabane.
Leadman, Alexander Dionysius Hobson, Bradford.
Mackie, John, Roxburghshire.
M'Kay, John Hector, Nova Scotia.
Nixon, Thomas, Lincolnshire.
Oliver, William, Coleraine.
Pentland, Henry Thomas De Montaville, Quebec.
Pickering, Thomas Fenna, Cheshire.
Renton, William, Knaresborough.
Rutherford, Robert Acheson, county Leitrim.
Stafford, John Francis, Wexford.
Stewart, George James, Craignish.
Todd, James John, Rathfriland.
Wallace, Samuel Lane, Londonderry.
Young, William Edward, Belfast.

Royal College of Surgeons of England.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 26th ult., viz.:—

Bishop, Edward Stanmore, Manchester, student of the Manchester School.
Briggs, George Chapman, L.S.A., Horncastle, of King's College.
Cheyne, George Edward, Thornton-heath, of St. Bartholomew's Hospital.
Clarke, John Clelland, M.B. Edin., Coleraine, Ireland, of the Edinburgh School.
Fendick, Thomas Rawing, Mylne-street, Clerkenwell, of St. Bartholomew's Hospital.
Garton, William, St. Helen's, Lancashire, of St. Thomas's Hospital.
Hugman, William, Guildford-street, of St. Bartholomew's Hospital.
Morison, Bentham Paynter, L.S.A., Porteleu, Pembroke, of Guy's Hospital.
Newman, Ashwin Conway, L.S.A., Winchcombe, near Cheltenham, of Guy's Hospital.
Norman, Joseph Clement, Colchester, of St. Bartholomew's Hospital.
Pratt, Charles William, Plymouth, of St. Mary's Hospital.
Pye-Smith, Rutherford John, Hackney, of Guy's Hospital.
Read, Charles, Guildford-place, Russell-square, of St. Bartholomew's Hospital.
Reed, James, L.S.A., Stoke, Devonport, of Guy's Hospital.
Rogers, Charles Claude, Cork-street, Bond-street, of Middlesex Hospital.
Scully, John, Wimpole-street, of the Middlesex Hospital.

Ten candidates having failed in the two days' examinations (July 25 and 26) to acquit themselves to the satisfaction of the Court of Examiners, were referred to their Hospital studies for six months.

The following gentlemen passed on the 27th ult., viz.:—

Allen, Marcus Henry, Brighton, student of St. Bartholomew's Hospital.
Aylen, Thomas Vaughan, L.S.A., Southsea, Hants, of St. Bartholomew's Hospital.

Barrow, Henry John Waller, Woolwich, of Guy's Hospital.
Brookfield, John Stoors, B.A., M.B., and M.C. Univ. Edin., Halifax, Nova Scotia, of the Edinburgh School.
Cartwright, John Peploe, Oswestry, Shropshire, of St. Bartholomew's Hospital.
Davies, David Arthur, Swansea, of University College.
Elkington, Ernest Alfred, Birmingham, of the Birmingham School.
Hadley, Clement, Birmingham, of the Birmingham School.
Hazel, William Francis, L.S.A., Oakley-square, N.W., of King's College.
Hill, Charles Hamor, L.S.A., Teddington, of St. Bartholomew's Hospital.
Latimer, Henry Arthur, L.S.A., Plymouth, of Guy's Hospital.
Marley, William Lane, Padstow, Cornwall, of the Middlesex Hospital.
Mayne, Thomas, Stonehouse, Devon, of University College.
McDonald, Michael Sweeny, Glasgow, of the Hull School.
Meredith, William Appleton, Wimpole-street, of University College.
Monks, Frederick Aubin, L.S.A., Hoxton, of Guy's Hospital.
Morgan, Edward Rice, L.S.A., Swansea, of King's College.
Payne, George Speke, Hartfield, Sussex, of St. Bartholomew's Hospital.
Phillips, George Arthur, Whitwell, Herts, of St. Bartholomew's Hospital.
Rees, Albert Barnes, Swansea, of St. Bartholomew's Hospital.
Saunders, Arthur Rich, Haverfordwest, of University College.
Slack, George Frederick, Montreal, of the Charing-cross Hospital.
Thrupp, James Godfrey, Marylebone-road, of St. George's Hospital.

Five candidates having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their Hospital studies for six months.

The following gentlemen passed on the 28th ult., viz. :—

Adcock, Hugh, L.R.C.P. Edin., and L.S.A., Hunstanton, student of Guy's Hospital.
Benham, William Thomas, M.B. & C.M. Aber., Bristol, of the Bristol School.
Bland, William Chas., L.S.A., Notting-hill, of St. Bartholomew's Hospital.
Bodman, Francis Henry, M.B. Aber., Devizes, of St. Bartholomew's Hospital.
Chambers, John Louis, L.S.A., Hackney-road, of the London Hospital.
Clark, Henry Edward, L.R.C.P. Edin., Glasgow, of the Glasgow School.
Coleman, William Franklin, M.D. Queen's Univ. Canada, Toronto, of the Canadian School.
Gibson, Charles Henry, L.R.C.P. & S. Edin., Dublin, of the Edinburgh School.
Grayson, Francis Dorrell, Henley-on-Thames, of Guy's Hospital.
Hincheliff, Edwin, M.B. Edin., Victoria, Australia, of the Edinburgh School.
King, William Louis, Great Malvern, of University College.
Lucas, Thomas Pennington, L.S.A., Leominster, of the Westminster Hospital.
Noad, Henry Carden, L.R.C.P. Lond., Hereford-road, W., of St. George's Hospital.
Ransom, Frederick Parlett Fisher, L.R.C.P. Lond., Elenham, Norfolk, of King's College.
Robertson, Hugh, M.B. Toronto, Toronto, of St. Thomas's Hospital.
Warren, George Milton, M.D. Toronto, Toronto, of St. Thomas's Hospital.
Watson, Walter George, L.S.A., Talbot-road, W., of St. Mary's Hospital.
Williams, Richard, L.R.C.P. Edin., Farnham, Surrey, of the Glasgow School.

Five candidates having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their Hospital studies for six months.

The following gentlemen, having undergone the necessary examinations, were admitted Licentiates in Midwifery at a meeting of the Board on the 31st ult. :—

Evers, Benjamin, L.R.C.P. Edin., Fulham-road.
Mondelet, William Henry, M.D. McGill College, Montreal, Emigration Service.
Smith, Eldred Noble, M.R.C.S., Worth, near Crawley, Sussex.
Willis, Julian, M.R.C.S., Great Northern Hospital.

Dental Surgeons.—The following gentlemen passed the necessary examinations, and received the diploma in Dental Surgery, at a meeting of the Board on the 1st inst :—

Gingell, George, Moreton Ongar, Essex.
Marsh, Henry, Chester.
King, Richard Francis Henry, Newark.
Rose, Harry, Albany-street.
Stevens, Mordaunt Augustus de Bronqueus Capel, M.R.C.S., Paris.
Vasey, Charles Lyon, M.R.C.S., Cavendish-place.

ROYAL COLLEGE OF SURGEONS, EDINBURGH.—Mr. Thomas George Gordon Ritchie, of Prestonpans, passed his first Professional Examinations during the July sittings of the examiners; and the following gentlemen passed their final Examinations and were admitted Licentiates of the College:—

Ferguson, Daniel, Glasgow.
Gibson, George, Dublin.
Lombe, George, St. George, county Down.
Mahony, Philip, India.
Moore, Samuel William, London.
Parry, Lloyd Davenport, Argyle.
Sanderson, Thomas Drummond, Edinburgh.
Scott, William Gifford, India.
Strathy, Frederick Rolph Lee, London, Canada.
Trimble, James, Enniskillen.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, July 27, 1871 :—

Brittin, Frederic George Morris, Wansford, Northamptonshire.
Clarke, John Clelland, Coleraine, Ireland.
Hartridge, Gustavus, Yalding, Kent.
Norman, George, Stockwell-park-road, Brixton.

The following gentlemen also on the same day passed their first Professional examination :—

Birch, Robert, King's College.
Groves, Matthias, St. Bartholomew's Hospital.
Lungley, Frank, Guy's Hospital.
Maclean, Allan, St. Thomas's Hospital.
Oates, James Pimlott, Birmingham General Hospital.
Strugnell, F. W., St. Bartholomew's Hospital.
Venning, Edmund, University College.
Waylen, G. S. A., St. Bartholomew's Hospital.

THE APOTHECARIES' HALL OF IRELAND.—At the Examination in Arts, held on July 21, the following gentlemen received Certificates entitling them to commence their Medical studies :—

Baldwin, Thomas	Giles, William Henry
Bricknell, Edward S.	Gorman, Patrick
Burns, Joseph Henry	Hoey, John
Burroughs, Wolfenden H.	Johnston, Roden
Byrne, William Patrick	Ryan, William
Castles, Joseph William	Walker, Henry
Flamery, James	Walshe, John Lemon

The following gentlemen having passed their Professional examinations, obtained the Licence to practise :—

Barber, Alexander, Coleraine, co. Derry.
Mason, William, Sackville-street, Dublin.
Palmer, Joseph Mansergh, Armagh.
Rice, Thomas David, Tralee, co. Kerry.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1861.

RESIGNATION.

Bodmin Union.—Mr. G. C. Carter has resigned the Second District; area 13,700; population 2061; salary £30 15s.

APPOINTMENTS.

Castle Ward Union.—Robert Torrance, L.R.C.P., to the Stamfordham District.

Farnham Union.—Walter Wilson Young, Bachelor of Medicine and Master of Surgery Edin., to the Aldershot District.

Westhampnett Union.—George C. Carter, L.F.P. & S. Glasg., L.S.A., to the Rumboldswyke District.

Whitechapel Union.—Joseph Loane, M.R.C.S. Eng., L.S.A., to the Fifth District.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

BASTIAN, Professor H. C., M.D., M.A., F.R.S.—Physician to University College Hospital.

BECK, MARCUS, M.S., M.B.—One of the Teachers of Practical Surgery to University College Hospital.

BOUANES, HENRY A., F.R.C.S.—Medical Attendant on the Royal Irish Constabulary, Killala, co. Mayo.

DAPNTARY, G. R., M.R.C.S., L.S.A.—House-Physician to the Seamen's Hospital, Greenwich, *vice* Dr. Henry C. Martin, resigned.

DICKSON, J. THOMPSON, M.A., M.B. Cantab., M.R.C.P.—Physician to the Infirmary for Epilepsy and Paralysis, Charles-street, Portman-square, W.

HEATH, CHRISTOPHER, F.R.C.S.—One of the Teachers of Practical Surgery to University College Hospital.

HILL, BERKELEY, M.B., F.R.C.S.—One of the Teachers of Practical Surgery to University College Hospital.

MCGREGOR, M.B., C.M.—Medical attendant to the Loyal Earl of Lonsdale Lodge of Odd Fellows, Bampton, Cumberland.

MADDEN, HENRY J., M.D.—Medical Officer to the Ballycastle Dispensary and Medical Attendant to the Royal Irish Constabulary, Ballycastle.

MEADOWS, ALFRED, M.D., M.R.C.P. Lond.—Lecturer on Midwifery and the Diseases of Women and Children to St. Mary's Hospital Medical School.

MURRAY, JOHN, M.D., M.R.C.P.—Assistant-Physician to the Hospital for Sick Children, New Ormond-street.

POPE, H. CAMPBELL, M.R.C.S., L.S.A.—House-Surgeon to the Seamen's Hospital, Greenwich, *vice* Mr. W. Crochley, South Clapham, resigned.

SYMONS, Mr. HENRY E.—Demonstrator of Practical Physiology at St. Bartholomew's Hospital Medical School.

NAVAL AND MILITARY APPOINTMENTS.

ADMIRALTY.—The following appointments have been made :—John Haran, Esq., promoted to the rank of Staff Surgeon in her Majesty's Fleet, with seniority of June 8, 1871. Staff Surgeon Arthur Adams has been placed on the retired list of his rank, from the 27th inst.

MEDICAL DEPARTMENT.—Staff Assistant-Surgeon James Bowyer Baker, to be Staff-Surgeon, *vice* Alexander Frederick Bradshaw, placed on the Supernumerary List while serving on the Staff of the Commander-in-Chief in India. Staff Assistant-Surgeon William Alexander Duke, from half-pay, to be Staff Assistant-Surgeon, *vice* James Bowyer Baker, promoted.

BIRTHS.

DALTON.—On July 26, at the Royal Dockyard, Pembroke Dock, South Wales, the wife of Staff Surgeon W. Ruffell Dalton, R.N., of a son.

FLOWER.—On August 1, at 30, Lincoln's-inn-Fields, the wife of Professor W. H. Flower, F.R.S., of a son.

HAMILTON.—On July 26, at Garnock, St. Dalry, the wife of the late W. B. Hamilton, M.D., F.R.C.S.E., of a daughter.

PURVIS.—On July 28, at Royal-hill, Greenwich, the wife of John Prior Purvis, M.R.C.S.E., of a son.

SMITH.—On July 21, at 2, Portugal-street, Grosvenor-square, the wife of Dr. Heywood Smith, of a daughter.

STILES.—On July 29, the wife of Edward M. Stiles, M.R.C.S.E., of a daughter.

WORLEY.—On July 26, at 43, De Beauvoir-road, N., the wife of Dr. W. C. Worley, of twin daughters, prematurely.

MARRIAGES.

BAXTER—HUGHES.—On July 29, at St. George's, Hanover-square, James, eldest son of H. J. Baxter, of Duke-street, to Edith Blanche, eldest daughter of the late Thomas Hughes, M.D., many years of Regent-street, W.

BONNER—BOIS-ANGERS.—On July 26, at St. Peter's Church, Brompton, William Augustus Bonney, M.R.C.S.E., L.S.A., of 320, King's-road, S.W., to Anna Maria Alice Polixene Poulain de Bois-Angers, only child of Victor Poulain de Bois-Angers, M.D, M.R.C.S.E., of 124, Fulham-road, S.W.

BUNKER—FENWICK.—On July 27, at St. Mary's Church, Wimbledon, Joseph Bunker, Surgeon Royal Artillery, to Elizabeth, second daughter of John Fenwick, Esq., of Tudor-lodge, Wimbledon-park.

CREW—FRODSHAM.—On July 20, at St. John's, Hackney, John Crew, L.R.C.P. Lond., of Higham Ferrars, to Agnes Dixon, youngest daughter of the late John Frodsham, Esq., of Clapton.

DAYRELL—ORR.—On July 27, at East Drayton, Notts, Richard Dayrell, Esq., son of the late Thomas Dayrell, rector of Long Marston, to Evangeline E. A. Orr, daughter of the late Samuel Orr, M.D., Innishannon, Ireland.

EDWARDS—BOWIE.—On July 26, at Christ Church, Kensington, William Henry Edwards, M.B., eldest son of the Hon. William Henry Edwards, F.R.C.S., of Antigua, West Indies, to Aunetta Antonia Louisa, daughter of the late William Bowie, Esq., of Edinburgh.

GOYDER—THOMAS.—On July 20, at St. Mary's, Moseley, David Goyder, M.D., of Bradford, Yorks, and son of the Rev. D. G. Goyder, of Wivenhoe, Essex, to Ann Eliza, second daughter of Robt. Thomas, Surgeon, Rawdon, Leeds.

HANKS—HORSFALL.—On July 26, at Dundee, John James, eldest son of James Hanks, M.D., Snaith, Yorkshire, to Mary, only child of the late Charles Horsfall, Esq., of Ravensthorpe, near Thirsk, and stepdaughter of Alfred Bankary, Esq., of 27, Green-park, Bath.

HOPGOOD—TUCKER.—On July 25, at the parish church, Falmouth, the Rev. J. B. D. Hopgood, M.A., eldest son of Joseph Hopgood, M.R.C.S., 130, Portsdown-road, Maida-vale, to Theodora, youngest daughter of the late Rev. W. Tucker, Vicar of Launarth, Cornwall.

JULIUS—HARGREAVE.—On August 1, at St. Mary's Church, Putney, Surrey, Frederic C. Julius, M.D., to Sarah Hannah, widow of the Hon. Judge Hargreave, late one of the judges of the Landed Estates Court, Ireland.

LIGERTWOOD—CLAY.—On July 29, at Christ Church, St. Pancras, Thomas Ligertwood, M.D., F.R.C.S.E., Royal Hospital, Chelsea, late 8th Hussars, to Celia, only daughter of the late William Besley Dunsford, of Swindon, Wilts, and widow of Robert Thomas Clay, Esq., of 2, Regent's-park-terrace, Gloucester-gate.

MOTE—SHINE.—On August 1, Thomas, youngest son of James Mote, of Hemingford-road, Islington, to Anna Maria Jane, only daughter of the late William Lamb Shine, M.R.C.S.E.

MUCKLESTON—HOLMES.—On July 27, at St. George's, Hanover-square, the Rev. Edward Muckleston, M.A., Rector of Haseley, Warwick, only son of the late Capt. Muckleston, J.P. for the county of Salop, to Emily, eldest daughter of the late Trafford Holmes, M.D., of Southedge House, Hipperholme, York.

ROSSER—HOLMES.—On July 27, at Holy Trinity Church, South Tottenham, Walter Rosser, M.B., of Glenalmond, Perth, to Elizabeth Sarah, only daughter of James Holmes, Esq., of Tottenham-green, Middlesex.

TINDALE—WALKER.—On July 26, at St. John's, East Dulwich, Wentworth Raynes Tindale, M.B., of Hampton, Middlesex, younger son of the late John Tindale, Esq., of Rose-villa, Almondbury, Huddersfield, to Sarah Frances, third daughter of Joseph Walker, Esq., late of Millshaw, near Leeds.

TUCKER—BENNETT.—On July 27, at Brutou, Somerset, J. Dunning Tucker, Surgeon, of 54, Great Marlborough-street, London, to Mary, eldest daughter of T. O. Bennett, Esq., of Bruton.

WARD—BUSZARD.—On August 1, at the parish church, Lutterworth, Richard Ward, M.A., of the Midland Circuit, Barrister-at-law, to Maria Catherine, eldest daughter of Marston Buszard, M.D.

DEATHS.

GODFREY, CHARLES RICHARD, Surgeon R.N., at Melville Hospital, Chatham, on July 25, aged 41.

LOWE, MARIA, the beloved wife of W. H. Lowe, M.D., at Balgreen, near Edinburgh, on July 31, after a short illness.

PAXON, LEONARD FRANCIS, third son of George Kirkman Paxon, Surgeon, of Dorking, drowned while bathing, on July 19, in his 20th year.

SHIPMAN, ROBERT, Surgeon, at Grantham, on July 25, aged 54.

SHIRLEY, HENRY JAMES, F.R.C.S., late Staff Assistant-Surgeon, and formerly Surgeon of the Worcestershire Militia, at 4, Grove-terrace, Highgate-road, on July 25.

ROSS, WILLIAM HAMILTON BROWN, Surgeon-Major, late of the Bengal Medical Service, at 149, Upper Lewes-road, Brighton, on July 19, aged 55.

WHITE, JOHN, Surgeon, after a short illness, at 1, Prince's-street, Storey's-gate, on July 28, aged 72.

WHITTLE, BRAMLEY, M.R.C.S., at Sidbury, on July 23, aged 62.

VACANCIES.

To the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

BATTERSEA.—Medical Officers of Health for the Eastern and Western Districts for this parish. Applications and testimonials, under seal, to the Board, Battersea-rise, on or before August 8.

BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN.—Resident Medical Officer; must be duly qualified and registered. Applications and testimonials to the "Medical Committee," on or before August 3. Election on August 7.

BIRMINGHAM, PARISH OF.—Dispenser; must be duly registered under the Pharmacy Act, 1868. Applications and testimonials to W. Thompson, Esq., at the Parish Offices, Paradise-street, on or before August 14.

BOURNEMOUTH GENERAL DISPENSARY.—Resident Surgeon; must have both Medical and Surgical qualifications and be registered. Applications and testimonials to B. A. Rugg, Esq., for the President of the Dispensary, on or before August 28.

HAMPSTEAD SMALL-POX HOSPITAL.—Assistant Medical Officer; must have both Medical and Surgical qualifications and be registered. Candidates to attend at a meeting of the Committee, at the Hospital, on Monday, August 7, at 3 o'clock.

HEREFORD GENERAL INFIRMARY.—Resident House-Surgeon; must be M.R.C.S. and L.S.A. Applications and testimonials to T. Owen Fowler, Esq., Savings Bank, Hereford. Election on August 9.

HUDDERSFIELD INFIRMARY.—House-Surgeon; must have both Medical and Surgical qualifications, and be registered. Applications and testimonials to Mr. John Marsden, on or before August 14.

MIDDLESEX HOSPITAL, W.—Physician; also Assistant-Surgeon. Applications and testimonials to Mr. H. N. Custance, Secretary-Superintendent, on or before August 22.

PLYMOUTH.—Medical Officer for the Northern District of this town. Candidates must have the qualifications prescribed by the General Orders of the Poor-law Board. Applications and testimonials to Mr. J. W. Matthews, Clerk, on or before August 8. Election on the 9th.

QUEEN'S COLLEGE, BIRMINGHAM.—Medical Tutor and Joint Demonstrator of Anatomy. Applications and testimonials to the Secretary on or before August 31.

SOUTH-WESTERN PROVIDENT DISPENSARY.—One Attending Medical Officer (honorary), having double qualification; must be resident in Chelsea.

UNIVERSITY OF DURHAM COLLEGE OF MEDICINE, NEWCASTLE-ON-TYNE.—Medical Tutor. Applications and testimonials to Luke Armstrong, Esq., College of Medicine, Newcastle-on-Tyne, on or before August 31. It is particularly requested that no *original* testimonials be sent.

WEST DERBY UNION.—Assistant Medical Officer to the Workhouse. Candidates must have the qualifications prescribed by the General Orders of the Poor-law Board. Applications and testimonials to Mr. W. Cleaver, Clerk, on or before August 10.

WESTERN GENERAL DISPENSARY, 264, MARYLEBONE-ROAD, W.—Assistant-Dispenser. Apply at the Dispensary.

VACANCIES.—Medical Officer to the Oldbury Board of Health; Fourth Assistant Resident Medical Officer to the General Infirmary, Leeds; Medical Officer and Public Vaccinator for Unst, Shetland.

MR. WILLIAM THOMAS has been elected Joint Professor of Anatomy at the Queen's College, Birmingham.

THE City Corporation has voted £105 to the Great Northern Hospital.

THE Paris Academy of Sciences is occupying itself seriously with the question of the cattle disease, which has raged so fearfully in France since the war.

THE weekly mortality in Paris is still decreasing. Only 778 deaths occurred last week.

PROFESSOR BILLROTH. — This distinguished Surgeon has received the iron cross in recognition of his services during the late war.

A COTTAGE Hospital has been opened at Dorking. Mrs. Hope, of Deepdene, gave the site and £250 in money, and Mr. Cubitt, M.P., contributed £1000.

A MEMORIAL will shortly be erected at St. Andrews to the late John Adamson, M.D., under the name of the "Adamson Institute."

IN the Manchester baby-farming case, the woman Frances Rogers has been sentenced to twenty years' penal servitude.

MR. FRANCIS BRODERIP, it now appears, was the benefactor who in 1866 gave an anonymous donation of £20,000 4 per cent. Brazilian Bonds to the funds of the Middlesex Hospital.

THE small-pox has broken out among the workmen in the Gloucester Canal Extension Works at Berkeley—Dr. Jenner's own parish. Two men have died, and many are seriously ill.

M. ALPHONSE GUÉRIN discovered during the siege of Paris that amputations simply dressed with cotton wool, and left undisturbed for about three weeks, would heal of themselves.

M. BROCA has ascertained that the muscular contraction of fractured legs, which so often seriously impedes the operation of setting, may be obviated by compressing the femoral artery.

COLNEY HATCH LUNATIC ASYLUM. — The summer entertainment to the inmates, which was to have taken place on Monday, has been postponed indefinitely, in consequence of the prevailing epidemic of small-pox, though not a single case of small-pox has occurred within the Asylum.

THE foundation-stone of the Home for Convalescents in connexion with the Manchester Royal Infirmary, which is being erected at the cost of Mr. Robert Barnes, was laid on Saturday. The site of the institution is an estate of twenty-three acres, near the railway station at Cheadle. The home will accommodate 140 patients.

CHOLERA has broken out at Berhampore, says the *Times of India*, and one of the first victims of the disease, we are sorry to say, has been Dr. John White, the Civil Surgeon of the station. Dr. Ewart has been called to Berhampore. The type is not considered to be epidemic. The disease has made its appearance among the artillery at Triniulgherry.

CHOLERA IN MOSCOW.—On July 17, 100 persons were attacked with cholera in Wilna, and 40 died; on the 18th, 62 were attacked, and 30 died; on the 19th, the cases of illness rose to 281. At Riga, Hospitals are already established for the exclusive use of cholera patients, and Physicians are kept on duty day and night. The epidemic is approaching the Prussian frontier.

EAST LONDON HOSPITAL FOR CHILDREN.—In consequence of the daily increasing demands upon this charity, active measures are being taken to raise funds for the erection of a new Hospital in the neighbourhood.

BATHS FOR SOLDIERS.—Two of the large shipbuilding docks in the disused dockyard at Woolwich have been cleared out and fitted up as swimming baths for the use of the soldiers. They will accommodate 700 at a time.

HYDROPHOBIA has broken out in several hunting kennels. The "Quorn" have lost all their entry, and many of the Albrighton have died, whilst still more serious fears are entertained for the huntsman and one of his assistants of the latter pack, both of whom are bitten. The disease has spread amongst some of the Scotch packs.

STRANGE CASE OF HYDROPHOBIA.—Ruth Simpson, a girl, 13 years of age, living with her parents, at 25, Lennox-street, Liverpool, was about eighteen months since bitten by a dog kept in the house, and about three months ago was bitten by another dog. A few days since all the symptoms of hydrophobia set in, and the poor child died in great agony on Thursday week.

ELEVATION OF TEMPERATURE AS A PRECURSOR OF ERYSIPELAS.—M. Verneuil related some cases to the Société de Chirurgie in proof that a sudden elevation of temperature (two or three degrees Cent.) indicates the speedy supervention of erysipelas when there is no other alteration in the general state of the patient or the condition of the wound.—*Union Méd.*, July 27.

THE annual meeting of the Society for rendering Aid to the Sick and Wounded in War was held on Tuesday. The report stated that the subscriptions reached nearly £300,000. The surplus of the Society was £73,212, and it was proposed that this sum should be invested in the names of Prince Arthur, the Earl of Shaftesbury, and Colonel Loyd-Lindsay. It was suggested that her Majesty should be solicited to become the patroness of the Society, and that a charter of incorporation for investing the sums should be instituted.

DINNER BY THE GOVERNOR AND COURT OF THE APOTHECARIES' HALL, DUBLIN.—Previous to the close of their official year, the Governor and Court of Examiners of the above Society gave a dinner on Thursday, the 27th ult., at the Exhibition Palace, Earlsfort-terrace. Among those who received invitations were the following:—Dr. Banks, President of the King and Queen's College of Physicians, Ireland; Mr. Wharton, President of the Royal College of Surgeons, Ireland; Dr. Stokes, D.C.L., F.R.S., and Sir Dominic Corrigan, Bart., M.P., Physicians-in-Ordinary to the Queen; Mr. Adams, Regius Professor of Surgery, and Mr. G. H. Porter, Surgeons-in-Ordinary to the Queen; Sir William Wilde, Surgeon-Oculist to the Queen; Professor Haughton, D.C.L., F.R.S.; Sir William Carrol, Professor Macnamara, Professor Benjamin George MacDowel, Dr. Churchill, Dr. Ringland, Mr. Albert Walsh, Dr. G. Johnston, Dr. Hargrave, Dr. Denham, Dr. Kidd Dr. Cruise. The usual loyal toasts having been received with all the honours, Dr. Banks, in replying to the "Health of the President of the King and Queen's College of Physicians," dwelt upon the benefit and mutual advantage of the representatives of the whole Profession thus meeting together. Mr. Wharton, as President of the Royal College of Surgeons, in returning thanks, spoke of the desirability of a union of the several branches of the Profession, and the formation of an Irish conjoint board of examiners. The "Health of the Governor and Court of the Apothecaries' Hall" was proposed by Dr. Banks. The "Health of the Rev. Professor Haughton," in connexion with Trinity College, was warmly responded to. Dr. Haughton, in returning thanks, mentioned the continuous efforts made by each of the Medical educational bodies of Ireland in the cause of advancing the Profession. He pointed out the great benefit that would accrue from unanimity, and asserted for Ireland the right to regulate the education of her youth in accordance with that respect for the Deity which had from the very earliest ages of Christianity marked the teaching of her schools.

THE APOTHECARIES' HALL OF IRELAND.—At the annual meeting of the General Council, convened pursuant to the Statute of Incorporation on August 1, 1871, the following were elected office-bearers for the ensuing year:—*Governor:* Robert Montgomery, Esq. *Deputy-Governor:* Joseph A. Dirham, Esq. *Court of Directors and Examiners:* Thomas Collins, Charles Holmes, Arthur Harvey, Charles H. Leet, Charles F. Moore, Henry P. Nolan, Jerome O'Flaherty, Edward J. O'Neill, George B. Owens, John Ryan, James Shaw, John Shea, and George Wyse, Esqs. *Examiners in Arts:* George Atkinson, A.M., M.B. Dub., and John William Moore, M.D., M.C.H. Dub. *Secretary and Representative in the Medical Council of Education:* Charles Henry Leet, M.D., M.C.H.

COMPOSITION AND QUALITY OF THE METROPOLITAN WATERS IN JULY, 1871.—The following are Dr. Letheby's returns to the Association of Medical Officers of Health:—

Names of Water Companies.	Total Solid Matter per Gallon.	Oxygen required by Organic Matter, &c.	Nitrogen.		Hardness.	
			As Nitrates &c.	As Ammonia.	Before Boiling.	After Boiling.
Thames Water Companies.	Grains.	Grains.	Grains.	Grains.	Degs.	Degs.
Grand Junction	18·13	0·107	0·120	0·002	13·8	3·6
West Middlesex	17·10	0·070	0·118	0·000	13·2	3·3
Southwark & Vauxhall	17·23	0·092	0·110	0·005	13·6	3·4
Chelsea	17·93	0·111	0·110	0·003	13·8	3·5
Lambeth	18·63	0·079	0·111	0·002	14·0	3·6
Other Companies.						
Kent	27·93	0·010	0·212	0·000	20·0	5·8
New River	17·40	0·023	0·120	0·001	14·0	3·3
East London	18·33	0·037	0·129	0·002	14·3	4·0

Note.—The amount of oxygen required to oxidise the organic matter, nitrites, etc., is determined by a standard solution of permanganate of potash acting for three hours; and in the case of the metropolitan waters the quantity of organic matter is about eight times the amount of oxygen required by it.

The water was found to be clear and nearly colourless in all cases but the following, when it was more or less turbid—viz., in those of the Grand Junction and the Chelsea Companies.

The average quantity of water supplied daily to the metropolis during the preceding month was, according to the returns of the Water Companies to the Association of Medical Officers of Health, 111,190,422 gallons; and the number of houses supplied was 487,650. This is at the rate of 34·1 gals. per head of the population daily.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

L.K.Q.C.P. Ireland.—You have a prescriptive right to call yourself Doctor or Dr., but not to sign yourself M.D.

Small-pox.—Vaccine lymph in tubes can always be obtained from Mr. Faulkner, Endell-street, W.C.

E. W. P.—One Preliminary will cover the others. You must reside for an Oxford or Cambridge degree.

X.—We do not know whether any new appointments are to be made. Write to the Medical Officer of the Privy Council.

Hibernicus.—It has been satisfactorily proved that the number of cases imported into Ireland during the five months ending July 13, 1871, was fifty-eight, which, added to thirty-four cases imported in 1870, makes a total of ninety-two cases in the period referred to.

Pymouth.—At a meeting of the Board of Guardians, held on Wednesday, the 26th ult., the election of a Surgeon in the room of Mr. May, resigned, was brought forward. It appeared that there was only one candidate for the vacant office, and it was moved that an adjournment for a fortnight of the election should be made, in order to the issuing of further advertisements, so as to obtain more candidates. Eventually this motion was carried. How can the Plymouth Guardians expect even a single candidate for a vacant office the duties of which they have increased, whilst they diminished the amount of payment. We trust what is called the "combination" amongst Surgeons will exist so long as it is attempted by an unscrupulous Board to treat them with insult and injustice.

A Reader.—Physicians and Apothecaries.—In the "Diary and Correspondence of Lord Colchester" is to be found the following curious statement:—"The practice of Physicians is so much altered of late years that, even in Dr. Mead's time—who died in 1754—no Physician visited the ward of any Hospital, nor ever saw the greater number of his patients. The business was conducted by consultations held at the Physician's house with the apothecaries, who related the patients' cases. Dr. Mead used to go into the City to Batson's Coffeehouse, and meet all the apothecaries and prescribe. Dr. Friend and Dr. Radcliffe were both of them members of the House of Commons."

Etiquette.—In the first instance, a communication of the kind referred to should undoubtedly be made to a Medical journal. We can find no excuse for giving the information in the form of a circular to the various newspapers. Such a proceeding assumes too much the character of advertising, and admits of an explanation not creditable to the writer of the letter. It may be argued that "poisoned gloves" is a subject interesting as much to the public at large as to the Profession. This is true; but we still contend that the information should, in the first instance, have been made to a Medical journal, whence it would have been quoted by the newspapers.

THE "LANCET" AND HOSPITAL OUT-PATIENT REFORM.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Last week I addressed a letter to your contemporary inquiring whether it was true, as stated in the *Daily News*, that the late deputation to Mr. Stansfeld "asked for the assistance of the Poor-law Board in encouraging the establishment of provident Dispensaries, in discouraging free Medical out-relief, and in placing the out-door Medical relief under the Poor-law Board," as in the *Lancet* report, which was considerably longer than that in the *Daily News*, no mention was made of any such requests. The *Lancet* suppresses my letter, as on a former occasion it suppressed an amendment which I moved at the meeting in April last. I am, &c.,

21, Fitzroy-square, W., July 29. H. NELSON HARDY.

COMMUNICATIONS have been received from—

Dr. HANDFIELD JONES; Mr. J. HUNTER; Mr. W. R. DALTON; Messrs. S. KING and Co.; Mr. C. H. COLLETTE; Mr. G. REED; Mr. J. MARSDEN; Dr. DAY; Mr. W. N. HARDY; Mr. ADDISON; Mr. T. WORTH; Dr. BASTIAN; Dr. BREE; Mr. G. COWELL; Mr. VENMAN; Mr. F. R. HOGG; Mr. B. ARMITAGE; Mr. MONTEITH; Mr. J. ROBERTSON; Dr. SHUTTLEWORTH; Messrs. A. and C. HARSTON; Dr. BARNES; Inspector-General LAWSON; Dr. LAYCOCK; Mr. J. CHATTO; X.; T. A. D.; Mr. H. E. SYMONS; Mr. S. WHITFORD; Dr. NEWMAN; Dr. PROTHEROE SMITH; Dr. LETHEBY; Dr. W. KRAMER.

BOOKS RECEIVED—

Report on the Health of the Parish of St. Marylebone, by John Whitmore, M.D.—Second Annual Report of the South-Western Provident Dispensary and Lying-in Charity—Life and the Equivalence of Force, by J. Drysdale, M.D.—Useful Chemical Tables, arranged for the use of Teachers and Students, by Adolphus Collenette.

PERIODICALS AND NEWSPAPERS RECEIVED—

Philadelphia Dental Times, July—Gazette Hebdomadaire—Dark Blue, August—Monthly Microscopical Journal, August—Hardwicke's Science Gossip, August—The Lancaster Guardian—Mechanics' Magazine—Medical Press and Circular—The Ediuburgh Evening Courant—American Journal of the Medical Sciences, July—The New York Medical World, July.

APPOINTMENTS FOR THE WEEK.

August 5. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

7. Monday.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

8. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

9. Wednesday.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

10. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; West London, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

11. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

VITAL STATISTICS OF LONDON.

Week ending Saturday, July 29, 1871.

BIRTHS.

Births of Boys, 1058; Girls, 1079; Total, 2137.
Average of 10 corresponding weeks, 1861-70, 1972·7.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	734	686	1420
Average of the ten years 1861-70	825·4	774·1	1599·5
Average corrected to increased population	...	...	1759
Deaths of people above 90	...	...	...

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561189	6	5	3	2	4	...	3	2	36
North ...	751668	52	1	2	1	6	6	2	1	57
Central ...	333887	3	2	...	1	...	...	1	...	18
East	638928	21	4	1	1	7	1	2	...	51
South	966132	40	6	13	3	5	2	1	4	39
Total	3251804	122	18	19	8	22	9	9	7	201

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·493 in.
Mean temperature	60·4°
Highest point of thermometer	76·6°
Lowest point of thermometer	51·9°
Mean dew-point temperature	52·3°
General direction of wind	W.S.W.
Whole amount of rain in the week	0·66 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, July 29, 1871, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1871.*	Persons to an Acre. (1871.)	Births Registered during the week ending July 29.	Deaths Registered during the week ending July 29.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3263872	41·8	2137	1420	76·6	51·9	60·4	15·78	0·66	1·68
Portsmouth ...	113450	11·9	92	23	...	...	†	...	1·13	2·87
Norwich	80533	10·8	53	19	71·5	49·0	57·5	14·16	1 15	2·92
Bristol	183298	39·1	128	79	...	...	...	...	...	...
Wolverhampton ...	68476	20·2	50	17	72·0	47·0	56·4	13·55	0·88	2·24
Birmingham ...	344980	44·1	221	130	...	...	...	...	...	...
Leicester	95882	30·0	50	49	72·0	48·0	57·7	14·28	1·47	3·73
Nottingham ...	86929	43·6	49	50	73·6	47·8	58·2	14·55	0·61	1·55
Liverpool	493649	96·8	274	258	67·0	48·9	56·2	13·44	0·83	2·11
Manchester ...	356099	79·4	240	201	...	...	...	...	...	...
Salford	125422	34·3	98	87	68·7	47·0	55·5	13·05	1·42	3·61
Bradford	146987	22·3	103	43	68·8	50·5	57·6	14·22	0·76	1·93
Leeds	260657	12·1	180	103	69·0	48·0	56·9	13·83	0·66	1·68
Sheffield	241507	10·6	204	96	70·0	48·0	56·6	13·66	0·87	2·21
Hull	122266	34·3	98	51	72·0	47·0	56·7	13·72	1·20	3·05
Sunderland ...	98797	29·9	66	70	...	...	...	...	...	...
Newcastle-on-Tyne	128677	24·1	71	91	67·0	49·0	55·7	13·16	‡	...
Edinburgh	201728	45·6	149	97	67·7	45·0	55·4	13·00	1·00	2·54
Glasgow	479227	94·7	341	300	66·2	44·5	55·3	12·94	2·00	5·08
Dublin (City, etc.)	322321	33·1	171	121	71·7	43·8	57·1	13·94	1·80	4·57
Total of 20 Towns in United Kingd'm	7215757	33·8	4775	3305	76·6	43·8	56·9	13·83	1·10	2·79

At the Royal Observatory, Greenwich, the mean reading of the barometer in the week was 29·49 in. The highest was 29·82 in. at 9 a.m. on Friday, and the lowest was 29·24 in. at 9 a.m. on Tuesday.

* The figures in this column are the unrevised numbers enumerated in April last, raised to the middle of the year by adding 1-40th of the rate of increase which prevailed between 1861 and 1871; the numbers for Edinburgh and Glasgow have been furnished by the Registrar-General of Scotland, while those for Dublin are still the estimated numbers recently used.

† Observations imperfect, owing to removal of station.

‡ Gauge out of order.

ORIGINAL LECTURES.

CLINICAL LECTURE
ON THE
USES AND APPLICATION OF HODGE'S LEVER-PESSARY.

By ROBERT BARNES, M.D. Lond.,
Obstetric Physician to St. Thomas's Hospital; Examiner in Midwifery and the Diseases of Women to the University of London, the Royal College of Physicians, and the Royal College of Surgeons, etc.

PART II.
THE SELECTION OF A PROPER INSTRUMENT.

In choosing a lever-pessary we must bear in mind the principle of its action. It is a lever, and we must take care to use it as a lever. It is very easy to impair or to destroy this, its essential character, by using too large a pessary. This is the case when the instrument puts the vagina tightly on the stretch. It then acts very much like the old ring-pessary, which prevents the uterus from falling chiefly by expanding the vagina and resting upon the floor of the pelvis. The lever-pessary requires no bearing upon the solid structures of the floor of the pelvis, and ought not to stretch the vagina. A lever must be mobile. It depends for its efficacy upon its responding to the natural movements of respiration. At every inspiration, the diaphragm, descending, drives the abdominal viscera downwards, and the anterior wall of the vagina, with the cervix uteri and the base of the bladder closely adherent to it, descends. Now, if a bar or lever be so placed in the vagina that one end rests upon the anterior wall, whilst the other is applied to the upper part of the posterior wall, so as to impinge upon the depressed fundus of the uterus, it is obvious that with every inspiration the anterior arm of the lever, carried down by the descending anterior wall of the vagina, will cause the posterior arm to ascend, and thus lift up the fundus uteri. This is precisely how the lever-pessary works. Its action is in strict harmony with the physiological movements of the organs. It is gentle, gradual, and safe. It preserves the natural contractile condition of the vagina. And this gradual action is the great condition of cure of a retroflexion. At the seat of flexion, if this has existed long, there is change of structure—perhaps some degree of atrophy. Before the uterus can maintain itself erect, this spot of impaired structure must be restored to its normal integrity. This is a process of nutrition for which time is required; hence the lever-pessary must usually be worn for a considerable time, counted by months—perhaps for a year or more; but all the while it is doing good.

The Material of the Pessary.—The best is undoubtedly vulcanite, on account of its perfect smoothness, and inalterability under exposure to the heat and discharges of the vagina. It is, therefore, perfectly clean; and when you have determined, by observation, the suitable size and shape, it is well to have one made in vulcanite for continuous use. But in the first instance it is more convenient to use the ordinary gutta-percha ring mounted on copper wire; this you can fashion yourself to the proper shape.

The size is determined by the capacity of the vagina and vulva, and by the degree of descent of the uterus. In single women one of very small size is commonly best; the elasticity and firm apposition of the walls of the vagina maintain the pessary in position. The touch gives you an estimate of the capacity and tonicity of the vagina. A ring $1\frac{1}{2}$ in., or 2 in., or $2\frac{1}{4}$ in. in diameter is generally large enough. It must be moulded, after warming, to the shape seen in Figs. 1 and 2. In married women, especially in those who have borne children, a ring of $2\frac{1}{2}$ in., 3 in., or $3\frac{1}{2}$ in. may be necessary. It is important that both ends should have but a moderate curve—should be, in fact, nearly straight. This enables the lower end to adapt itself better to the symphysis pubis and urethra, and the upper one to the rounded uterus. The lower arm is bent backwards, the upper one forwards, as seen in Figs. 2 and 3.

The introduction is effected in this way. The patient lies on her left side. The forefinger of the left hand is first passed as a guide just inside the vulva, and presses the perineum slightly backwards. The pessary held in the right hand is then passed with its flat in a line with the vulva—that is, in the conjugate diameter of the pelvis, as seen in Fig. 1. As soon as the upper end enters the vulva it is directed somewhat backwards, so as to avoid pressing against the

FIG. 1.

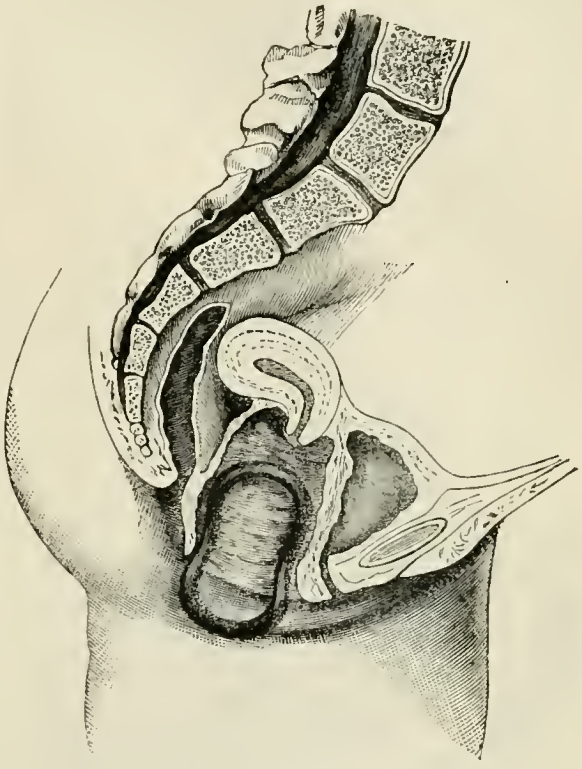


FIG. 1.—First stage of introduction of the lever-pessary.

FIG. 2.

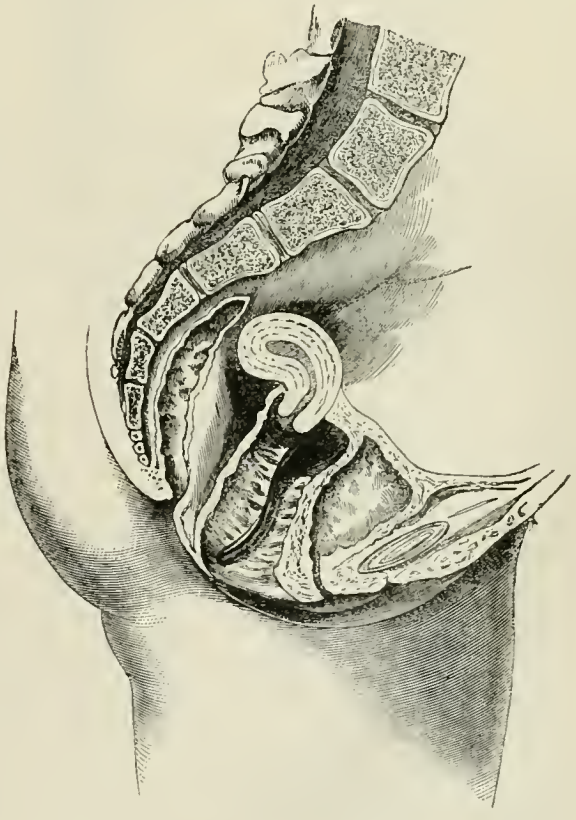


FIG. 2.—Second stage of application of the lever-pessary.

symphysis. When it is wholly inside the vagina the guiding finger applied to the lower arch turns the pessary half round on its long axis, so as to bring its flat into the transverse diameter of the pelvis, as in Fig. 2. The effect of this manœuvre is often to carry the upper arch in front of the os uteri. The guiding finger, therefore, passed inside this arch must press it back under the os, when it will immediately rise to its proper position behind the os and below the retroflexed body of the uterus, as seen in Fig. 3. The riding of the

Fig. 3.

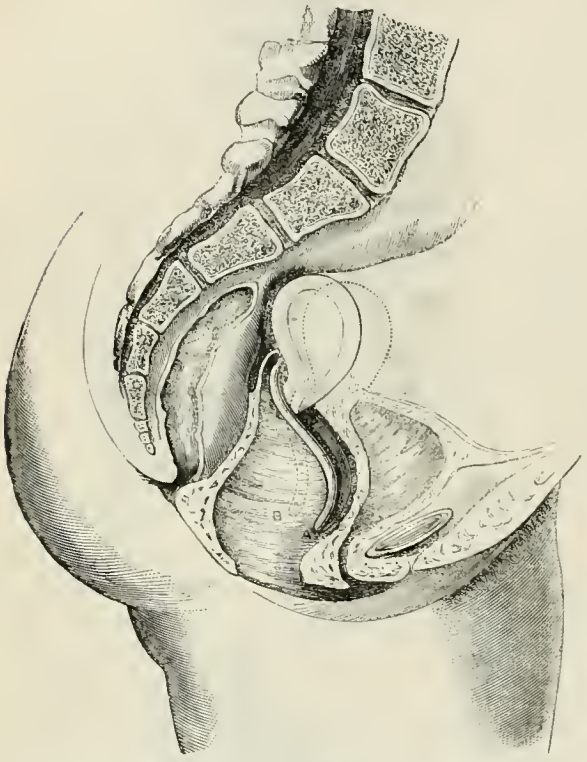


Fig. 3.—Lever-pessary *in situ*. The lower limb at A is the position in expiration. On inspiration it is carried back to B, and the upper limb, rising, carries the body of the uterus forward to the position marked by the dotted outline.

pessary over the os sometimes causes a little pain. *In situ*, the os falls inside the upper loop, and displacement, provided the size and form are right, is nearly impossible. The adaptation of the lever depends upon the structure of the vagina—upon its anterior wall being shorter than the posterior; so that the anterior arm of the lever must be lower than the posterior one, which naturally rises into the *cul de sac* behind the cervix, to which place it is guided by the cushion between the lower part of the posterior wall of the vagina and the rectum, which forms an inclined plane rising towards the fundus of the vagina. The last thing to do is gently to push up the lower or anterior arch behind the symphysis with the tip of the finger. In single women the passage of the vulva is generally painful, and sometimes the displacement of the uterus is attended by such a severe degree of hyperæsthesia that the use of chloroform is indicated alike to facilitate diagnosis and the application of the instrument.

When *in situ* a well-chosen pessary should give no pain. If the vaginal wall is found much stretched, the pessary should be removed and a smaller one tried. Pain sometimes is felt from the pressure of the upper arch upon the tender congested uterus. Where there is any serious amount of inflammation, some days' rest in bed, perhaps weeks, should be used first. But generally the little uneasiness at first experienced soon wears off, and, as the pessary begins to act, sensible relief from the troubles due to the retroflexion is obtained. The pressure upon the bowel is gradually taken off, and after a time, aided by tonics and other means, the constipation is often materially lessened.

To remove the instrument, manœuvres in the inverse order of those used for introduction are necessary. There is no occasion, however, to bring the upper loop first in front of the os uteri. All you have to do is to hook the forefinger into the lower loop, which is directly behind the symphysis pubis, and whilst drawing it downwards and backwards to rotate it on its long axis, so as to bring the flat into correspondence with the vulvar fissure, as in Fig. 1, and then to extract in the axis of the pelvic outlet.

Some few patients acquire the knack of introducing and removing the instrument themselves, but generally it is an operation that requires skill. It is worn continuously. It interferes with no function. Moderate exercise is beneficial, both by improving nutrition and general health, and also by promoting the specific lever-action of the pessary. It is always desirable to see patients who are wearing the pessary from time to time—that is, once in two or three months. After a while, as the uterus rises, it may be useful to substitute a larger instrument. When endocervicitis or uterine catarrh or hæmorrhage complicates the displacement, as is not uncommonly the case, further local and general treatment will be necessary to accelerate the cure.

ORIGINAL COMMUNICATIONS.

CASE OF

SUDDEN DEATH FROM SUBACUTE INFLAMMATION OF THE AORTA,

PRODUCING INCOMPETENCY OF AORTIC VALVES AND DILATATION OF LEFT HEART—AUTOPSY.

By WALTER MOXON, M.D.

A man, aged 36, a refugee from Paris, a baker by trade, was admitted into Guy's Hospital, suffering from symptoms of heart disease. He had never had rheumatic fever; there was no account of syphilis, but his wife had had several miscarriages; he was pale, and suffered moderately from dyspnœa. A diastolic murmur of regurgitant aorta was plainly audible; no pulse could be felt in his left arm. Still, he was far from being entirely bedridden and disabled, and appeared to have a considerable time to live; indeed, he was rather of a merry turn, and in the evening of the day of his death had been singing, shortly after which he went to his bed, and they said he had a fit; but he was found to be dead by the House-Physician, who was summoned at once.

On inspection, the body was well formed and well nourished, and entirely free from dropsy. There was a general purplish cast of the surface. The head was not examined; the probability of such a sudden death being due to brain disease was practically nothing. As to the lungs and their covering, all parts were healthy, with one trifling but significant exception. This exception was, that slight adhesions of the pleura existed on both sides along the course of the aorta, and they did not exist in any other part. The aorta was diseased: its valves appeared perfect in structure, but by the yielding of the softened aorta the orifice they should close had become too wide for them, so that they were stretched flat, leaving a triangular opening between them, instead of meeting on a triradiate line as is proper. A free regurgitation was thus allowed, and this regurgitation no doubt had given rise to the great dilatation of the left ventricle which was present—a dilatation that greatly exceeded the hypertrophy which accompanied it. The weight of the heart was sixteen ounces. The whole of the aorta down to the cœliac axis was diseased: its coats were swollen and softened, and, instead of the usual yellowish opacity, had an almost starch-like, bluish, half-pellucid appearance, blotched with fattily degenerated patches, and wrinkled through irregularity in the distribution of disease. It was plain that the heart had no proper disease, but it failed through disease of the aorta. It is so commonly assumed now that disease of the aorta is always due to degeneration, passive and connected with senility, that this case acquires a certain importance from its showing reason for rejecting that supposition as regards its own causation; for, at the age of 36, advanced senile changes are unlikely, and the character of the disease in the aorta itself, marked by softening of the coats into a flabby but half cartilage-like looking state, does not conform to conditions of degeneration, while the pleural adhesions already mentioned, taken with the appearance of the diseased vessel, may be accepted as proving the active and, in short, inflammatory nature of the change. The disease acquired a greater intensity at one spot, and its inflammatory character was best shown there. This spot was

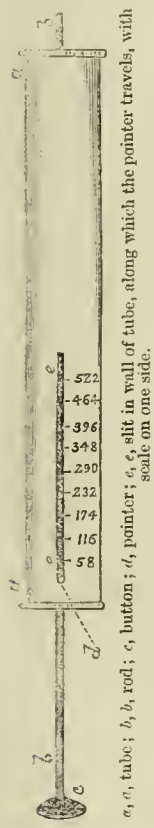
the origin of the left subclavian artery, where a mass of subfibroid material larger than a horse-bean lay in the vessel's coat, and quite shut up the subclavian, thus accounting in an interesting way for the absence of pulse in the left arm observed during life. All the blood in the heart's cavities was fluid, as is usual in the case of sudden death from whatever cause.

The case gives an example of what must never be forgotten in dealing with disease of the aortic valves—namely, the liability to abruptly sudden death while yet the patient is free from dropsy and the other signs of mechanical failure of the heart's efficiency. This risk of sudden death scarcely exists at all in mitral disease. It would occupy much space to trace the probable causes of this difference, but attention should be given to the strongly marked difference of aspect between a patient suffering from mitral disease and a patient suffering from aortic disease. Aortic cases are pallid, tawny, anxious, and breathless, even when free from dropsy. Mitral cases, on the other hand, have a congested look, and have either none or a bearable neuralgic pain, very different from the suffocative anginose distress of aortic disease, and they do not generally suffer gravely before dropsy begins to appear. Of the two evil conditions which follow from obstruction of the circulation—viz., deficiency of blood in front of the obstruction, and congestion behind it—aortic disease suffers more from the former, and mitral disease more from the latter. It also appears that aortic disease in some way tends more quickly to deprave the quality of the blood.

NOTE ON A SPHYGMOMETER.

By C. HANDFIELD JONES, M.B. Cantab., F.R.S.

It is very evident that it would be desirable to have some means of measuring with tolerable accuracy the strength of the pulse. At present we can only judge of it by our consciousness of the amount of muscular force we exert in compressing it. We say that a pulse is strong, or weak, or compressible, but we do not express the degree of strength numerically, as we do the *rate* when we count it watch in hand. The following is a short description of a little instrument which I hope may meet this want:—It consists of a spiral spring contained in a brass tube, and attached at its lower end to a metal rod, which projects from the tube nearly two inches, and terminates in a flattish oval button. The rod carries a pointer which indicates on a scale the number of grammes equivalent to different degrees of pressure. For most cases I think a scale extending from fifty-eight grammes to 600, and occupying about 1·8 inch in length is convenient, the degrees corresponding to multiples of fifty-eight. But for weak pulses I use a much weaker spring, whose pointer travels over 1·8 inch when a pressure of 320 grammes is applied. In using the instrument the observer places his finger on the radial artery, just beyond the styloid process of the radius, and applies the button over the artery, as near the finger as possible. He then makes pressure on the artery till he finds that the pulsation ceases to be perceptible to the examining finger, and then notes the position of the pointer. By alternately making and relaxing pressure, it is easy to find pretty correctly the force expressed in gramme-weights which arrests the pulse.



Occasionally I have found that compression of the radial, though it greatly weakened, did not quite obliterate the pulse. This happens, I suppose, when the radio-palmar branch, which completes the superficial palmar arch, is of large size, and so its pulsation is perceptible to the finger. Even in this case I think it will often be possible to discover when the main current is arrested.

Another and more elegant form of instrument for the same purpose can be obtained by adapting a much stronger spring to Dr. Gibson's stethometer, and graduating the dial as in the above-mentioned scale. This, as well as the simpler form of the instrument, will be obtainable before long, I hope, at Mr. Hawksley's, Blenheim-street, Bond-street, and may be inquired for under the name of a sphygmometer. As to the practical utility of this little invention, I affirm nothing at present. In a short time, as I am using it a good deal, I hope to form some conclusion about it. I only say that it seems to me a rational procedure to use some such instrument, and that this is simple, handy, uncostly, and easy of application.

REMARKABLE CASES OF "LE PETIT MAL."

By J. THOMPSON DICKSON, M.A., M.B. Cantab., M.R.C.P.,

Physician to the Infirmary for Epilepsy and Paralysis, Charles-street, Portman-square.

The following remarkable cases of "le petit mal" were lately under my observation, and they are of special interest as illustrations of the extreme mobility of some nervous systems when brought within the influence of even very slight subjective impressions.

In the late inordinate demand for vaccination, several applicants requested me to operate upon them, and among these were the epileptics whose histories I am about to detail. Two of the patients were young ladies, of an age between 15 and 16, the other was a boy 12 years old.

The first case is one of the girls. In her the signs of puberty are complete, and her physical development is considerably advanced. At school she has given abundant evidence of good intellect, and, though vivacious and volatile, constantly displays a remarkable amount of good sense. She was brought to my house for vaccination, and I had just commenced to scarify the skin of her arm when I noticed that she became ashy white, her lips became blanched, and her face bloodless; the next instant she became unconscious, and fell forwards upon a table against which she was standing. Almost the next moment she stood up, gazed vacantly round the room, and then re-presented her arm for the completion of the vaccination. I asked her what was the matter? She said "she did not know, she only felt a little faint;" and asked if she might have a little water. She was altogether unaware of the fact that she had fallen. I afterwards questioned her upon her general condition, and I learned from her that she often feels a sensation which she describes as "faint," but which, on interrogating her more closely, she described as giddiness; and this, she said, "is always followed by headache." I have been informed that some three or four years ago this girl had a fit, but it is vaguely described, and no account has been taken of any seizure that may have occurred since the time of its occurrence. Incidentally her mother had noted that she frequently complained of headache. She was under my care shortly before the occurrence of the seizure described, suffering from *suppressio mensium*.

This girl's mother is epileptic; I have known the mother to be in the *status epilepticus* for twenty-four hours at a time. This child, however, was born before the malady had shown itself in the mother. But a brother of the mother was insane, and a maternal uncle of the mother was an amental epileptic; thus in the third generation the hereditary predisposition has, at an early age, become manifest in the development of a highly mobile organisation, and though the positive manifestations have been but slight, the consequences hereafter may be very great.

The second case occurred in the other girl, in whom the signs of puberty are incomplete, though her physical development is rapidly maturing. She, however, partakes more of the child and less of the woman than my first case. The extreme mobility of this young lady's nervous system I was quite aware of, and I was more than ordinarily struck with an observation I made upon it a few days before I vaccinated her. I was dining one evening at her father's house, and she playfully asked me to mesmerise her, and I, willing to gratify and amuse the child, made an attempt to do so, but for some time without any effect. After some minutes she laughed, saying, "It is impossible to influence me;" but within the next minute she was almost completely under the nervous influence. Of course, I instantly desisted, and refrained from pushing the experiment further; but I noted the extreme suddenness with which her nervous organisation had changed from a state of great excitement to one of very passive control. But to return. Whilst vaccinating her, just as I had completed the scarification of the skin, I observed her turn deathly pale, and the next instant she fell into the arms of her mother, who was standing by. Her mother placed her on the floor, and for about forty seconds the patient was death-like and

motionless; she was then seized with a convulsion, in which all the flexors were thrown into spasm (the fit exactly resembled one of the eclamptic attacks I have often produced in guinea-pigs by section of the spinal cord). She then turned on her right side, and then sat up, asking "what the matter was." I gave her my hand, and she stood up, looked round the room, and again asked "what the matter was." I desired her to lie down on a sofa, which she refused to do, saying, "I'm all right." She was, however, easily persuaded, and when lying down said, "I hope I have not had a fit." On questioning her, she told me that she had a headache, and felt giddy and confused, and that it was not the first time she had felt so, though she had never told anybody. A few days afterwards I learnt from her that she is subject to frequent attacks of vertigo, and to occasional headache of an almost overpowering kind. She is a girl of very brilliant intellect, and possessed of abilities of a very high order; she has extraordinary vivacity. At the same time, she is devoted to reading and study, and will brood over books for many hours together. I learnt, too, that she was occasionally subject to somnambulism; and I also learnt that a brother of her mother had died insane. A sister of my patient died of cerebral disease which had manifested itself as epilepsy, and her father, although a man of large mental calibre, is the subject of vertigo. I have not been able to learn for certain whether the taint extended back to a former generation (the subject is one of extreme delicacy with the family), but the mother hinted to me on one occasion that her grandfather was at one time insane.

The third case occurred in a boy of 12 years of age, whom I have had under my care for three years, the subject of "le haut mal." His epilepsy, which commenced during dentition, was neglected, and continued with more or less severity until three years ago, when I commenced systematically to combat the condition. He was at one time subject to seizures which threw him into the *status epilepticus*, sometimes lasting for four-and-twenty hours together, but he had not had any form of attack for eighteen months before the day on which he came to me to be vaccinated. His mother brought him in compliance with his own wish, and after he was vaccinated he sat down on a chair whilst his brother was being operated upon. After some four or five minutes, he put his hand up to his right ear, and said he had a pain in the ear. On placing my hand upon that organ I found it intensely cold. After sitting for one or two minutes longer I saw him become blanched. He then got up and ran towards the door, and had just touched the handle when he reeled round on the right foot and fell forwards. I reached him in time to catch him in my arms, and I laid him, rigid and insensible, but unhurt, upon the floor. He was insensible about thirty seconds. He then became slightly flushed, was seized with one very slight convulsion, opened his eyes, and the next instant fell asleep. He slept about ten minutes, after which he sat up, and said he felt very ill. He did not know what the matter had been with him; he said all he remembered was that somebody had shaken him. His mother asked me the question whether it was a fit or whether he had "only fainted." On the morning of the day on which the occurrence took place, it was noticed that the child refused his breakfast. His breath had a fetid odour, and he admitted that his bowels had been confined for some days.

In this case the family history pointed to hereditary taint. The child's maternal grandfather died of cerebral disease, though the malady did not appear in any of his children or grandchildren, or in any member of their families, until this child's first attack. On the paternal side the family history is good. Although the exciting cause of the fit I have described was undoubtedly the intestinal irregularity, the case teaches much from the fact of the slightness of the determining circumstance. He admitted that he did not feel the vaccination; it was to him, therefore, merely an idea. The phenomenon was, consequently, subjective; but subjective impressions are as exhausting to the cerebral cells as objective, and, as shown by the cases I have given, readily upset the nervous equilibrium or balance of control.

It now behoves us to draw the lessons furnished by these cases. The special interest attaching to the two first-mentioned is the fact that they were first, or almost first attacks, and therefore there was perhaps some excuse for their friends mistaking the manifestations for faintings. The mother of the second-mentioned, however, recognised, and at first admitted, the epileptic character of the affection, though she afterwards persuaded herself, and insisted among her relations, that the attack was only a faint. The cases, however, were all instances of genuine epileptic seizure, and all reached the degree of complete loss of consciousness. It is certainly remarkable how unwilling relations and friends are to admit the fact of epilepsy, and how ready they often are to stifle their fears with the assumption that the patient has "only fainted." Herein, too, lies one of the nice distinctions that I have several times before drawn attention to—viz., the overlapping of epilepsy syncope. I grant that syncope may occur in a patient who has not the least epileptic tendency, and, again, that epilepsy may (and frequently does) occur without the slightest resemblance to syncope; but, at the same time, it is certain that the form of epilepsy which we call "le petit mal" bears in its outward form so strong a resemblance to syncope that it is of the highest importance to study minutely all the circumstances of a patient the subject of fainting, lest, under the assumption that the attack is a mere faint, we overlook the graver condition. And I would here repeat that epilepsy is more common than is generally admitted, and that its pathognomonic symptom is sudden loss of consciousness.

The next lesson we may learn from these cases is a confirmation of the fact I have before several times demonstrated—namely, that the proximate cause of the epileptic phenomenon is cerebral anæmia. So intimate is the association and connexion between the vessels of the face and the interior of the skull, that the blood-carrying state of the former may be taken as an index of the sanguiniferous condition of the latter; and, in the cases under consideration, the blanched bloodlessness of the face certainly spoke eloquently of the anæmic state of the brain, which resulted in loss of consciousness. The loss of consciousness, again, was complete and without affectation—a circumstance never attendant upon mere fainting.

In the cases of the girls, both professed to be brave, yet both afterwards admitted that they had been afraid of the operation for vaccination; their courage was forced and unnatural, and upon realisation of the fact that they had not been hurt, the relaxation of the tension at which their nerveus energy had been held became an irritant to their brains. In the ordinary healthy brain, the relaxation of mental strain, however severe, would never have been followed by a degree of exhaustion sufficient to set up that cerebral irritation which is required to contract the smaller arterial vessels and capillaries; but we have seen that my patients are subjects of hyper-excitability—or, at the least, of mobility—from hereditary cause, and thus they are eminently susceptible of the influence of very slight irritation.

I mentioned in connexion with the second case that the girl was highly intellectual and that her father was a man of large mental calibre, and the fact is noteworthy as comparing with many assertions as to the intellectual capacity of epileptics. A very little reflection will show that the want of mental power observable in epileptics is a question of degree, of continuance, and of time. Epileptics may be born with little or no intellectual capacity; but the brightest intellect may become the subject of epilepsy. The subject of hereditary taint, however mobile and unstable his nervous power may be, may yet possess extraordinary mental capacity and great intellectual brilliancy; nevertheless, when once the tissue-change which brings about this dire affection has seized upon the individual, the onward course is downward, and the tendency of all epileptic subjects is, either with rapid or slow steps, certainly and surely towards hopeless imbecility.

I may be asked how I would treat these cases; and I answer that the essential of treatment is to endeavour to teach the patients themselves to exercise such judgment in all their actions that they may, if possible, prevent recurrence of the attacks. Every effort must be made to ward off attacks and to nourish the brain-tissue in such subjects. All exhausting influences, particularly excitement and long abstinence from food, must be carefully avoided, and the due performance of all natural functions adequately and normally sustained. Epileptic patients, particularly young girls, are often self-willed. It is, therefore, highly necessary to win their confidence, in order to persuade them of the necessity of adopting rules and habits of living which are essential to their good.

Girls are often captious and capricious about their food, and neglect to take it with that regularity which in an epileptic is necessary to avoid exhaustion. To starve at one meal-time and eat inordinately at another is a certain means of nursing epilepsy, since it brings about alternate irritation and exhaustion. Irregularity in attendance to the calls of nature, also, is a neglectful habit to be watched and remedied. Constipation is a frequent attendant of epilepsy, is often increased by neglect, and is a very frequent excitant of an epileptic seizure.

Precaution also must be observed in regard to direct excitement. Not long since I witnessed a young lady in a ball-room, drop, as though dead, into her partner's arms whilst she

was waltzing. Her loss of consciousness was complete, and, though she was able almost instantly afterwards to walk to a chair, it was some minutes before she recollected where she was. She told me that she was quite aware of her malady, that she was subject to seizures of the kind, and she never could waltz for many minutes without feeling giddy, but that the temptation to waltz whenever she had the opportunity was so great that she found resistance of it almost impossible. In "le petit mal," as, indeed, in epilepsy of every degree, there is no circumstance too small to be worthy of notice. In my experience, the smallest detail has often proved to be of material importance in diagnosis of obscure cases.

VERY LARGE CYSTIC TUMOUR OF LEFT BREAST, OF TWO YEARS' DURATION—REMOVAL—RECOVERY.

By W. NEWMAN, M.D. Lond., F.R.C.S. Eng.,
Surgeon to the Infirmary, Stamford.

E. S., 58, widow, was admitted under my care into the Stamford and Rutland Infirmary, on June 2, 1871. She has a very large tumour of the left breast, and gives the following history:—

Has had one child seventeen years ago. Always had good health until two years back, when she noticed a lump about the size of a pigeon's egg at the anterior and inner part of the left breast. This lump has gradually become larger, and has grown irregularly; but for the last month or two it has made very rapid increase, and the surface has become knotted and lobulated. In the first instance there was very little pain, but for the last twelvemonth the pain has been pretty constant, and of dull, aching character; sometimes severe darting through the breast has been felt, and the uneasiness has of late been much increased by any movement.

She is a stout, healthy-looking woman. Her impression is that the growth followed upon a sharp blow upon the breast, and she maintains stoutly that the whole duration has not lasted more than two years. The tumour measures twenty-four inches in circumference at the base, and eighteen inches at a line drawn from the chest wall above over the prominence of the mass to the chest wall below. At the base it is hard to the touch, but above there are numerous and large cysts thinly covered by very tense integument, and affording very distinct fluctuation. On the under surface protrudes a fungoid mass, which has only very recently made its appearance; it is about the size of a large walnut, and is sloughy and dark-looking; there has not been any hæmorrhage from this point. The axillary glands are not enlarged, and the mass can readily be moved upon the pectoralis muscle. Many large veins are seen to ramify between the prominent lobules.

June 5.—The breast was supported for two hours in raised position, so as to favour as far as possible the return of blood from its vessels. At 2 p.m. chloroform was given, and I proceeded to remove the mass. Two elliptical incisions were made—one at the inner, the other on the outer side—and the coverings rapidly dissected down to the fascia covering the pectoralis major. The tumour was drawn well away from the body, and a few rapid cuts sufficed to effect its complete removal. The fibres of the underlying muscle were not even exposed. There was but little hæmorrhage, and only three ligatures were needed. The edges of the wound were brought together with wire sutures. Wet lint applied, and a light sand-bag put over so as to keep the flaps well down upon the chest.

Chloroform sickness was troublesome for the next two days; but the local conditions went on very well, and the constitutional disturbance was but little. Pulse never exceeded 108; and temperature was not noted above 102°.

9th.—Sutures removed; some blush on the flap near to the axilla, and retention at this lowest point of sanious discharge. This was remedied by change of position and some outside packing.

15th.—Takes food well. Wound discharges freely and healthily; at the upper part the healing is nearly complete.

July 1.—Wound healing well; gets up each day.

18th.—A mere trace of unhealed line at lower half of wound. Discharged cured.

The tumour on removal weighed 7½ lbs. I sent it at once to the museum of the Royal College of Surgeons, and Mr. Goodhart, the pathological assistant, has kindly forwarded the following careful description of the mass:—"The tumour measures (diameters) 10 inches by 6½ inches. The skin excised shows the nipple, and below it an oblong, irregular ulceration, with two rounded masses projecting from it, forming a fungous-looking mass. The integument around the nipple is distended, but there is no adhesion of the growth to it and no retraction. The subcutaneous surface of the tumour is very irregular from the projection towards the surface of many cysts of similar shape to those protruding from the ulcerated spot. They all contain a very viscid gelatinous fluid, in which float a few round cells with very granular contents and some fatty squamous epithelium. The whole growth is surrounded by a thin fibrous capsule, outside which is a thin layer of adipose tissue. No remains of the proper breast-tissue can be found, and no adhesions to the muscle beneath appear to have existed. On making a section of the mass, a large quantity of thick and viscid milky-white fluid came away from the cysts in its interior. The milky appearance was due entirely to the presence of much squamous epithelium in a state of advanced degeneration. Having washed this away, the greater part of the tumour still remained solid, a few cysts only becoming empty. The whole tumour, however, is cystic in its nature, the solid part consisting of large cysts, entirely filled with secondary and tertiary cysts projecting from the lining membrane of the parent cell."

I have thought this case deserving of permanent record from the fairly clear history of the growth, and from the careful pathological description with which I have been courteously favoured. The enormous size of the mass, its singularly easy removal, and the extremely short time occupied in its increase, are, too, all points which deserve the notice of the practical Surgeon.

ON RHEUMATISM.

THE RHEUMATIC POISON: WHERE AND WHAT IS IT?

By J. JAMES RIDGE, B.A., B.Sc., B.S., M.D. Lond.

Not so very long ago there was a notable discussion upon the treatment of rheumatism, which gave a rude shock to the long-established faith on the subject, and disturbed the widespread confidence of the Profession in the routine treatment of the disease by alkalies. Some bold and irreverent spirits even ventured to assail the foundation of the alkaline treatment, and to question the "acid" character of the disease. What effect has all this had? Is the alkaline treatment less frequently adopted, or its foundation-hypothesis abandoned? Taking the reports of cases in the journals as a guide, we can hardly come to that conclusion. Some, no doubt, have thrown it up and adopted an expectant plan; some, perhaps, doubt, yet keep to the same line of treatment, and use the same phrases, and astonish their patients still by the learning they display in discovering "acidity of the blood"; but the majority have no such scruples to restrain them.

With a view to clear the way for some scientific and correct theory of the nature of rheumatism, I propose to pass in review the arguments upon which the opinion that there is excess of acidity in this disease is generally rested. I believe it will be found that there is, to say the least, no sufficient ground for such an opinion.

The presence of a special "acrimony" was early assumed to exist in the blood in rheumatism, in accordance with the then prevalent humoral theory. Cullen was one of the principal of the few opponents of this idea, and as his remarks are so pertinent, and have just as much force if applied to the more modern doctrine of an "acid poison," it is worth while to hear him. When, however, he leaves criticism, and builds up a theory of his own, he is more open to objection. But if his language is translated into that of modern pathology, he is certainly, in my opinion, nearer the solution of the problem than his opponents, or their successors. He says—"The proximate cause of rheumatism has been imputed to a peculiar acrimony, of which, however, in ordinary cases, I can find no evidence; and, from the consideration of the remote causes, the symptoms, and cure of the disease, I think the supposition very improbable." Again—"While I cannot, therefore, find either evidence or reason for supposing that rheumatism depends upon any change in the state of the fluids, I must conclude that the proximate cause of acute rheumatism is commonly the same with that of other inflammations not depending on a direct stimulus." Sir C. Scudamore is one of the few who have held a similar opinion. His remarks, quoted by Garrod in Reynolds' "System of Medicine," are very appropriate in this connexion, though some of the expressions seem to me to

require modification. He says—"It may be stated that the predisposition to rheumatism consists in a deficiency of healthy tone in textures connected with joints and muscles, and in nerves, so as to be affected in this peculiar manner by the influence of variable temperature. If we lose sight of the humoral term rheumatism, we shall come to the simple fact that, in a condition of susceptibility, cold or a sudden reduction of temperature makes a particular impression on the vessels and nerves near the surface, and produces a painful affection of certain textures, which is attended with more or less inflammation, the phenomena of which are of so peculiar a nature that we either consider the disease specific, inasmuch as the symptoms differ in their constituent character from those produced by other inflammations, or we may view the effect in the light of common inflammation, modified on the one hand by the nature of the exciting cause—the external one, cold—and, on the other hand, by the particular species of textures which become affected."

These views, although supported by such high authority, appear to have produced no permanent impression on Medical opinion. Among the causes of this the following may probably be included:—1. The strong hold of the humoral theory upon the Profession. 2. The influence of the *idolum fori*, set up by the use of the specific term rheumatism, which immediately led to the idea of some peculiarity in the disease. 3. The ingenious theory of Dr. Prout, which presented a definite poison—lactic acid—in place of the indefinite "acrimony"; a theory which was very acceptable to the rising school of philosophical and chemical Physicians; and, finally, a theory which, by the rational treatment it suggested, being found to be so very much less injurious than that before adopted, as, by comparison, to seem highly advantageous, appeared to be incontestably established. The apparent success of the alkaline treatment has thus formed the strongest argument for the favourable reception of the acid theory; and as the explanation which Cullen attempted has become yearly more antiquated and seemingly absurd by the progress of discovery and thought, so his opinion as to the simple nature of rheumatism has been consigned to the same limbo. In considering the *pros* and *cons*, it has seemed to me that the acceptance of the acid theory by the Profession has been if not too hasty, at least too unquestioning, and that very little examination is required to reveal that this theory rests upon a very unsubstantial basis. To challenge most of the arguments is almost enough to destroy them; and when all have been arraigned, I think it will be found that Cullen's explanation is at least superior in the negative virtue of not misleading us.

Dr. Garrod,(a) after noticing the above anti-humoral views of Cullen and Scudamore, briefly observes—"Similar objections to those which have been raised against Cullen's views of gout apply to the above attempted explanation of the pathology of rheumatism." What, then, are these objections which, *mutatis mutandis*, apply to rheumatism? On referring to his article on gout and substituting rheumatism, etc., we read—"It has been demonstrated beyond doubt, by clinical evidence, that the blood is invariably altered in (for, "gout, from the presence of uric acid in the form of urate of soda," I suppose we must read) rheumatism, from the presence of excess of some acid, probably lactic or acetic; that the secretions from the blood are likewise influenced; that symptoms are usually present before the development of the articular inflammation;" lastly, the presence of chalk-stones, which have no analogue in rheumatism.

Let us first examine these objections in order, noticing afterwards some other arguments which have been adduced.

a. "The blood is invariably altered." This is unquestionable. To prove the theory of a *materies morbi* from this, however, something more is necessary. It must be shown that the alteration is something *sui generis*. But this is just what has never been done. The fibrin is doubtless much increased, but not more than in some other (so-called) simple inflammations. Other constituents are also altered, but only in a similar manner. Of the existence of any peculiar acid, lactic or otherwise, Dr. Garrod himself admits that "no proof has been given." It has been asserted that the serum is sometimes acid, but he always found it distinctly alkaline. It is clear, then, that, so far from favouring the acid theory, clinical evidence as regards the blood is, on Dr. Garrod's own showing, directly opposed thereto. Of the experiments of Dr. Richardson on the effect of injecting lactic acid into the peritoneum I shall have something to say under another head.

b. "The secretions from the blood are influenced." 1. *The Sweat.*—In the condition of this secretion a clear proof of the presence of the *materies morbi* is maintained to exist. Lactic acid is said to be a normal constituent of the sweat, and in the copious sour-smelling perspirations which are generally present it is asserted that excess of lactic acid escapes from the system. Others are more indefinite, and are content with saying that the poison, whatever it is, is removed in this way. Dr. Fuller rests his belief that the poison is identical with some natural excretion of the skin, on the grounds (1) that rheumatic stiffness in old people is produced when the skin's action is interfered with; and (2) that Nature's means of relieving the symptoms by perspiration suggest a relationship between rheumatism and cutaneous excretion.

It will be easy to show the fallacy of the first opinion. Thus, the sweat is frequently neutral, and sometimes alkaline, in this disease. Next, sour-smelling and acid perspirations are not peculiar to rheumatism. As Dr. Gull has remarked, they are often present in phlebitis, especially that form following injuries of the head, as well as in arterial embolism. The sour smell has been considered abundant proof of the great acidity of the sweat, and, *ergo*, of the system generally. It has apparently been forgotten by many that the smell is due to decomposition, to the presence of butyric, caproic acids, etc., and that lactic acid has no odour. The same smell has been produced many a time during hot weather without any suspicion of rheumatic poison. Lactic acid is itself a product of decomposition, and may be formed thus in the sweat, if not its only origin, but it is not present in such quantities or with such constancy as to warrant us in concluding that the disease is due to the diffusion of this substance through the system, when we know, on the other hand, that the blood remains alkaline, and that no lactic or other abnormal acid has been discovered therein.

Further, as regards Dr. Fuller's propositions, the first is explicable on another theory with equal facility, if not with greater, since the stiffness generally corresponds with the locality where the cold has impinged, or there is a general sensation of chill to indicate that central nerve-centres are influenced. The second is a pure assumption, and, in the words of Dr. Gull, "I know of no facts to show that this excess indicates a special pathology, or may be regarded as a salutary process whereby the system is relieved of a *materies morbi*."(b)

The idea that some subtle intangible poison is excreted with the perspiration is almost too indefinite to grapple with, and may be used to explain every disease in which sweating occurs. The difficulty of proving a negative is proverbial, and we may therefore leave this shadow, to discuss substantial arguments.

2. *The Urine.*—This has been another stronghold of the supporters of the acid theory. Some have spoken as if the acid poison of rheumatism had been actually detected therein, as if the acidity usually present was an accurate measure of the acid circulating in the blood—which, however, we have already seen to be an *ignis fatuus*. It will no doubt be very difficult to convince (*sic*) that there is no proof of the existence of this terrible acid to be derived from the condition of the urine. Is there no difference between the urine of rheumatism and that of other febrile diseases? None whatever. In very acute cases the peculiarities of febrile urine are very strongly marked, but there is no radical difference. No special acid has been discovered. Failing the presence of any particular acid, it has been asserted that the excess of acidity, the deposit of urates, etc., are due in a general manner to excess of acid in the system. Apart from the fact that such excess has never been proved, Parkes makes the very pertinent observation,(c) that the apparently excessively acid reaction of the urine to test-paper is due in great part, if not altogether, to concentration; also that Professor Vogel found the free acidity to be greatly reduced. The acidity of recent urine is due to the presence of acid phosphate of soda; but the amount of excreted phosphoric acid is very little altered in this disease, which tends to confirm the idea that the acidity and the deposit are due to concentration. As regards the deposit of uric acid and urates, these are increased to a comparatively small extent, and not more than in many other diseases: their deposit is due to the cooling of the urine, their relative and absolute increase, and the development of acid after discharge.

We have thus seen that neither the urine nor the sweat gives the slightest encouragement to the idea of an acid *materies morbi*.

3. *The Saliva.*—This has been asserted to be acid, and to prove thereby the acid diathesis. Miller(d) says that the

(a) Reynolds' "System of Medicine," vol. i., Art. "Rheumatism."

(b) Address in Medicine, British Medical Association, 1868.
(c) Parkes on Urine.
(d) "Organic Chemistry."

saliva is usually alkaline in health, but has been observed to be acid in various forms of inflammatory disease. This would be sufficient to establish my position that there is nothing peculiar in the saliva in rheumatism. But the condition of the saliva is quite the reverse. In rheumatism, as well as in fevers and other inflammatory disorders, it is alkaline, and not acid. It is true that if test-paper be applied to the tongue, the blue litmus will be more or less reddened, but this is due to the presence of mucus, and partly, perhaps, to decomposition of saliva. In health the mouth is continually washed with fresh secretion, and so is generally maintained in an alkaline condition. This alkalinity is increased during meals, for large supplies of fresh saliva are then secreted, and all old mucus is removed. But if the secretion is viscid and scanty, as in fevers, it soon becomes acid, chiefly from admixture with mucus, partly from decomposition, and partly from absorption of the carbonic acid of the breath. In such a case, however, let the mouth be well rinsed with pure water; then, if saliva can be secreted in sufficient quantity, let a drop be allowed to overflow from the open mouth (the tongue being kept quiet) on to the test-paper: it will invariably be found to be alkaline. If there is not sufficient saliva for this, pass the paper lightly over the surface of the tongue; it is then alkaline, also, though in a less degree. If you have to press the paper on the tongue to get enough moisture, it may be acid, though often slightly alkaline. This alkalinity diminishes in two or three minutes, and with scanty saliva soon disappears. Rheumatic fever is no exception to this rule. I have been thus minute in respect to this symptom, because it is not only an argument lost to the other side, but tells against them. It is also a fact that the acidity seems unquestionable without the above precaution.

The acid poison of rheumatism, according to the indications of the secretions, must, if it exist, be a veritable Proteus. "The acid is in the blood;" but it is undemonstrable there. "The skin excretes it;" yet the sole result is a sour smell. "It comes away in the urine;" but it cannot be found there. "At any rate it renders the urine acid;" it is not certain, however, that it always or often is in reality more acid than usual. "The saliva, secreted from this vitiated blood, shows what the nature of the blood is by its acidity;" this, I assert, is often more alkaline than usual. "At any rate other secretions are altered;" of this we have even less proof.

I feel almost ashamed to continue to slay the slain, yet I feel also that all the arguments employed must be exhausted as far as possible, that this question may be set at rest. So we have to consider Dr. Garrod's next objection.

c. "Symptoms are present before the development of articular inflammation." This point may be well conceded, yet it fails to establish the theory that the symptoms are due to the circulation of a poison in the blood. Doubtless, premonitory symptoms are present in the so-called zymotic diseases; but it is very illogical to draw the conclusion that rheumatism has any affinity with zymotic diseases, because there are generally premonitory symptoms. All asses are animals; Physicians are animals; but it does not follow that all Physicians are asses, though, of course, it might still be true in particular cases. On the other hand, we know of other diseases in which premonitory symptoms of a precisely similar nature occur, which, however, have never been attributed to the presence of a *materies morbi*. Moreover, these are diseases which are admitted to be produced by the same general exciting cause as rheumatism, and which, I believe, are identical therewith in their essence. Such, for instance, is pneumonia; such, also, is pleurisy; and such, also, are the thousand-and-one manifestations of catarrh.

The admission I have made above simply compels me to admit, also, that the fever of rheumatism is not merely symptomatic fever. This I readily do, and in this I depart from the views of Cullen and Scudamore. But there is no doubt that after the joint affection occurs symptomatic fever does exist, and that it in general bears a close relation with the articular inflammation.

I claim, then, that these premonitory symptoms do not prove, or nearly prove, the existence of a poison, much less of an acid poison, and are as readily and more naturally explicable in another way.

I have now replied to three of the four objections to Cullen's theory of gout, which, Dr. Garrod says, equally apply to his theory of rheumatism. The fourth, "the presence of chalk-stones," does not apply to rheumatism, since no one maintains that there are any similar deposits of the rheumatic poison.

(To be continued.)

REPORTS OF HOSPITAL PRACTICE

IN

MEDICINE AND SURGERY.

DISPUTED POINTS IN THE DOCTRINE OF SYPHILIS.

(Continued from Vol. I., 1871, page 691.)

In the former series of our queries we dealt almost entirely with primary sores and their immediate consequences. We would now consider the constitutional symptoms which flow from these. To our first query relating to these, we have received answers which well deserve attention. This was—"Are hard sores invariably followed by secondary symptoms?"

Mr. Berkeley Hill promptly replies, "No; certainly not." Mr. Langston Parker says "No," as does Mr. James Lane; whilst Dr. Barton says, "Invariably, by some sign or signs of the second stage of the disease," and Mr. Maunder says "Yes." Mr. Henry Lee says—"The specific adhesive inflammatory sore is always, in my opinion, followed by secondaries; but there are other kinds of hard sores." So Dr. McDonnell says—"I have met with a few cases of tolerably well-marked hardness around sores which proved in after years not to have been syphilitic." So Mr. Gascoyen and Mr. Shillitoe agree in saying that, as a rule, hard sores are followed by secondaries, but not invariably. Thus, the former writes—"Hard sores are almost invariably followed by constitutional syphilis. The very few cases in which this does not obtain form exceptions to a general rule."

Surely such replies, and those we elicited with regard to hard and soft sores, must make many who are given to pronouncing definite judgments on imperfect grounds hesitate before they give their next prognosis as to the probable cause of a sore and its consequences to the system. One thing is clear: soft sores are not infrequently the precursors of constitutional symptoms, and hard sores are not invariably followed by them—in short, neither hardness nor softness can be taken as an infallible sign of the primary lesion of syphilis or the reverse.

Our next inquiry was—"What form of secondary symptom is most invariably observed after a hard sore?" The answers to this question have not had the same precision as the others, evidently from a misapprehension of what we wished to elicit. We desired to know what form of cutaneous eruption, let us say, was most frequent as a symptom of constitutional infection. Mr. Henry Lee tells us the papular and scaly eruptions; Mr. Shillitoe says the erythematous and papular; Mr. Maunder, rose rash; Mr. Langston Parker, roseola; Dr. Barton, roseolar and papular eruptions. More replies have been sent by other gentlemen. These we now insert:—

Mr. Gascoyen writes—"The form of constitutional disease most usually found after a hard sore is an eruption on the skin, which may vary in severity from a slight transient roseola to large ulcerating tubercles of the integument. In females one of the most common manifestations of syphilis are mucous papules of the vulva and anus." Mr. Berkeley Hill says—"The most common form of skin eruption for which a patient with early syphilis applies for relief is the *papular;* but I don't think this is commonly the first to appear, because, if a patient with initial syphilis and indolently enlarged inguinal glands is carefully examined when a sufficient period has elapsed for the skin eruptions to be developed, the eruption most usually found is the *macular*. The patient himself is often quite unaware of his macular rash until his attention is directed to it by the Surgeon. I have no reason to doubt the correctness of the ordinary doctrine that the variety of sore has no influence in determining the variety of the skin eruption (so-called 'secondaries')." Dr. McDonnell writes this—"Any form may follow a 'syphilitic' sore. I would say that mucous patches in the mouth, skin eruptions, and glandular swellings are the symptoms which seldom fail to present themselves."

Most of our readers are aware that it is customary to divide the eruptions of syphilis into two great groups, the early and late—the early being mostly superficial and widely disseminated; the late affecting the deeper tissues, and being much more circumscribed than the former. As a rule, it may be said that roseola is the first to manifest itself; and in cases where it is said not to have existed, in a good many instances, this depends on its being overlooked by the patient. Next comes the papular or miliary syphilide, which is also common. As it

passes away it leaves behind it a discoloured spot covered with scales, which constitutes one form of what is called by some syphilitic psoriasis or syphilitic lepra. Vesicular syphilides are rare; if they occur at all, it is early in the disease. The two most important of the syphilitic eruptions which remain to be noticed are the pustular and the tubercular. But of the former there may be said to be two varieties—one early, the other late—whilst tubercles are rarely, if ever, the first syphilitic manifestation observed.

The next question was—What lesions, primary or secondary, are capable of propagating the disease? Mr. Maunder's reply is concise, and perhaps conveys the truth as exactly as possible. He says—"Chancre and moist secondaries." Dr. Barton says—"Simple sores propagate themselves indefinitely. Syphilis is propagated by the primary sore, by secondary moist lesions, by condylomata, sores about the mouth, etc." Mr. James Lane writes thus—"All primary lesions, and probably all secondary lesions which furnish a secretion, may communicate disease, the earlier secondary lesions being more virulent than the later ones. I believe that secondary disease may be communicated by frequent cohabitation, or other modes of contact, without the intervention of any primary lesion." Whilst Mr. Shillitoe says—"All forms of ulcerating syphilitic sores, whether primary or secondary, are capable of producing constitutional symptoms." Mr. Lee says—"Any part of the skin or mucous membrane, and probably of any internal organ, specifically inflamed, will furnish an infecting secretion." Mr. Gascoyen says—"All primary sores are capable of propagating the disease; but the most virulent are those which are of recent date, or are secreting pus. Of the secondary lesions, mucous papules are the most poisonous, but the matter from a serpiginous ulceration, or from the more severe forms of pustular syphilides, will also spread the disease." Whilst Mr. Berkeley Hill writes thus—"I have no knowledge from my own observation to show that syphilis—*i.e.*, constitutional syphilis—is ever propagated by the discharges of any venereal sores. In every instance of my own observation the disease has always been apparently propagated by the secretion of general eruption, etc. But as cases are on record where syphilis has been intentionally propagated for experimental purposes by inoculating the secretions of hard sores, I do not doubt the contagious quality of those secretions. Hence, to answer this question, I should say—The secretions of all early forms of syphilis—namely, the indurated sore, the moist papule, the ulcer of the tonsil, and the pustular eruptions. The blood has also, by experiment, been shown capable of conveying the poison in a communicable shape during the early stages of the disease at least."

The question whether constitutional syphilis ever affects a child, the mother being unaffected, is one of much interest. Several of our authorities say they have not sufficient evidence on the subject; others say they doubt it; but men with such large practical experience as Mr. Henry Lee and Mr. Gascoyen say the thing is possible. Mr. Gascoyen says—"Yes, occasionally. I have met with two or three instances where a child, the offspring of a syphilitic father, was the subject of constitutional sypbilis, whilst the mother remained unaffected. But in each of these cases the child did not present any trace of disease until some weeks after birth."

Next comes the most practical point of all. Query: What form of treatment do you ordinarily adopt (*a*) for hard sores, (*b*) for soft sores? Mr. Henry Lee says—"(*a*) Calomel vapour baths, (*b*) sulpho-carbolate of zinc lotion." Mr. Shillitoe says—"(*a*) Mercurialisation, to a greater or less degree, in all cases of hard sore. (*b*) Cleanliness, dieting, rest if much inflammation, with usually steel or some tonic. Locally, a variety of simple lotions; most frequently tartrate of iron, from ten to twenty grains to the ounce." Mr. Gascoyen deals thus with the disease:—"The treatment I adopt for (*a*) hard sores is to keep the sore covered with a simple unirritating lotion, and to give mercury, generally in the form of blue pill, in such doses as will not make the gums tender. Directly I find this to be the case I diminish the quantity, or altogether omit the dose for a time. I usually continue the mercury until the sore has quite healed, and all the hardening at its base has disappeared; for unless this be done it is not unusual to have a recurrence of the induration, followed by a re-opening of the sore. For (*b*) soft sores I use a simple lotion, with opium, and, unless they be very irritable, touch them every second or third day with some form of escharotic. But I do not give mercury unless they become sluggish and indisposed to heal. If, however, this be the case, I at once resort to that drug, in the same form and same doses as mentioned above." Mr. Maunder gives for the hard sore a mercurial, for the soft an astringent lotion; whilst Dr. McDonnell rarely adopts specific or mecurial treatment for any form of primary lesion. Mr. Langston Parker gives mercury in hard sores, either by vapour or inunction. Mr. James Lane also gives mercury for hard sores. Mr. Berkeley Hill gives mercury for the first, with astringents or detergents for local treatment. "For soft sores," says he, "I employ chiefly acetate of lead lotion, or black wash, or weak solutions of carbolic acid." Dr. Barton gives us the following:—"For simple sore, nitric acid, afterwards dressing with a solution of chloride of lime (℥ij. of Hunt's sol. chl. lime to ℥viij. of water). Sometimes a *second* application of the acid is necessary; no other treatment is required. Syphilitic sores I treat locally with either black wash or the chloride of lime solution; never cauterise them. In some cases I think it best to postpone constitutional treatment until the signs of the second stage have appeared; in others I commence the treatment at once, which is by the inunction of 15 gr. or 20 gr. of ung. hyd. once daily, until induration disappears as the sore heals."

Finally, as regards points unnoticed, Mr. Henry Lee writes thus:—"My decision is—*a*. The local suppurating sore. *b*. Specific adhesive inflammation, of which there are three principal varieties—(1) circular red patches of mucous membrane desquamating; (2) tubercle without ulceration; (3) Hunterian chancre." Mr. Shillitoe gives us this last word of advice on the treatment of tertiary: "If iodide of potassium in full doses or other ordinary remedies fail, I strongly recommend Zittman's treatment."

In conclusion, we beg leave to tender our best thanks and those of our readers to the gentlemen who have so kindly given us their best attention and their best information. Truly we think the result has been of no slight value.

GUY'S HOSPITAL.

COMPOUND DISLOCATION OF RIGHT ELBOW—AMPUTATION OF THE ARM—NEW METHOD OF CONTROLLING HÆMORRHAGE.

(Under the care of Mr. BRYANT.)

An old woman, aged 77, who had fallen down upon her right hand on some stone steps, was admitted under Mr. Bryant with a compound dislocation of the elbow-joint. On examination, it was found that the ulna was displaced backwards without fracture of the coronoid process, a portion of the inner condyle of the humerus was detached, and there was a lacerated wound along the inner side of the biceps tendon. From the nature and extent of the injury, associated with the age of the patient, Mr. Bryant was induced to amputate at once. This he did by having the arm raised so as to empty the vessels of the limb, by gravitation, as much as possible of blood, and then, without applying the tourniquet, he controlled the brachial artery with the fingers of his left hand while he amputated just below the middle of the arm. The patient is now doing well.

On examining the joint after it had been removed from the body, it was seen that, besides the injuries alluded to, the head of the radius was comminuted and the upper end of the lower fragment or shaft of the bone dislocated forwards, the uneven end of which having been pushed inwards as well as forwards, had, no doubt, at the time of the accident produced the wound in the skin and soft parts on the inner side of the biceps. Instead of securing the artery by ligature or by torsion, which is the method chiefly employed at this Hospital, Mr. Bryant used an instrument which had been brought to his notice by Dr. Fleet Speirs, of New York. This instrument is called the artery constrictor, and consists of a flattened metal tube, six inches (more or less) in length, open at both ends, with a sliding steel tongue running its whole length, and having a vice arrangement at one end and a hook-shaped depression at the other, by which the artery can be grasped. It is then made to contract upon the artery by means of the vice at the upper end, which forces it within the sheath. In principle its action is the same as that of torsion, but the integrity of the external coat is more thoroughly preserved, while the continuity of the vessel is maintained.

Mr. Bryant informs us he had made some satisfactory experiments with the constrictor previous to using it upon the case now described, and he is of opinion it will be of good service in cases where torsion is impracticable—as, for instance, in the cure of aneurism.

LARGE ULCER ON LEG TREATED BY SKIN-GRAFTING.

Mr. Bryant has at the present time under his care a middle-aged woman with a large ulcer on the front of the leg, on

whom he has practised the skin-grafting treatment. When we saw this patient, ten days after the operation, there was in the centre of the ulcer a nearly circular patch of new skin, of a pinkish colour and of the size of a shilling. In the centre of this patch could be distinctly seen the minute transplanted portion of skin, well defined from the newly developed tissue by being of a paler pink colour than the latter. The edges of the ulcer were rapidly closing in towards the central growth, whereas before the transplantation they were making no progress whatever. Mr. Bryant is led to the opinion, from his experience of this treatment, that not only is a new centre established, but that the margins are themselves stimulated in the healing process by the presence of the engrafted skin.

ENCEPHALOID TUMOUR OF THE AXILLA IN A MAN 48 YEARS OF AGE—REMOVED.

(Under the care of Mr. DURHAM.)

The patient is a copper vessel maker, and two years ago, while at work, he injured, with a piece of hot copper, a small mole on the right arm, a little above the elbow. The mole then began to grow, and when as large as the top of his index finger was removed by a ligature, which was applied for six weeks. After removal the skin over the spot remained somewhat raised and red, and five months ago a similar growth appeared on the same spot. At the same time a smaller tumour showed itself in the right axilla. On admission, a hairy mole was seen two inches above the condyle of the humerus, and to the inner side of this two or three small tubercles, situated in a diamond-shaped depression, about one inch in length. Several minute tubercles were noticed in the skin of the neck, back, and arms. In the right axilla a smooth even swelling extended from between the axillary folds to the thoracic wall, in a line on a level with the nipple, and curving upwards and inwards towards the middle of the clavicle. The anterior fold of the axilla was blended into the tumour, which reached to the apex of the space, but did not extend beneath the clavicle. Posteriorly it was limited by the latissimus dorsi, and reached as low as the level of the inferior angle of the scapula. The tumour was firm, but elastic to the touch. The skin covering it was slightly reddened, and in places more than normally fixed. There was no difference in the radial pulse on the two sides, and the right arm, though a little swollen, did not pit on pressure.

Mr. Durham proceeded to remove the growth by making a vertical incision over it through the skin, which he dissected off from the tumour. He next freed it from the soft parts below and on each side, having to remove some of the fibres of the pectoralis major muscle, to which it was closely adherent. He then, with great care, detached it from the apex of the axillary space, and in so doing had to expose the axillary vein for some distance, and to cut through three or four veins which joined the axillary; but little blood, however, escaped from these, and only one artery—viz., one of the upper thoracic arteries—required a ligature. Lastly, Mr. Durham removed the small growth on the arm, to which a ligature had been attached before the patient was admitted.

After removal the tumour weighed one pound, and measured in the long axis of its section four and a half inches, and in its transverse two and three-quarter inches. It was of an ochry yellow colour, having minute cheesy yellow spots disseminated in a grey structureless material. At one part was a rounded and apparently encapsuled mass, of a blood-red and mottled colour, convex on section, and giving the appearance of being a solid intra-cystic growth. One or two smaller but similar masses were present, but were of a softer and more brain-like consistence than the former, and yielded a thick curdy fluid on scraping. On making sections into some parts of the larger encapsuled portion, a similar curdy white fluid escaped. Microscopically, the structure was seen to be almost entirely cellular, being composed of irregularly rounded mononucleated cells, of different sizes; some of the cells contained more than one nucleus. The growth from the arm consisted of layers of epithelial cells, which extended deeply as far as the subcutaneous adipose tissue, and were there seen amongst the normal elements of that structure. No nest-like groups of cells were anywhere seen in it.

DISLOCATION OF HUMERUS BENEATH THE CORACOID PROCESS, OF TWENTY-FOUR DAYS' STANDING—IRREDUCIBLE.

(Under the care of Mr. BIRKETT.)

The patient, a middle-aged man, had fallen forcibly on the point of his left shoulder twenty-four days previously. He had soon after the accident been seen by one or two Medical men, who had cursorily examined him, but without having him stripped. On applying to the out-patient department the day before we saw him reduction under chloroform had been attempted in the surgery, but without success, and the man was in consequence admitted into the Hospital. Attempts were again made to effect reduction, both by Mr. Birkett and Mr. Durham, but to no purpose, the head of the bone resisting every endeavour which skill and tact in manipulating, as well as justifiable force, could bring to bear upon it.

Mr. Birkett, in remarking upon the case to the students, took occasion to impress upon them the importance of always examining a patient after an injury with the part naked. Had this precaution been taken in this case, and especially had the two sides of the body been compared with each other, the nature of the injury would at once have been detected; whereas, owing to the neglect of this, the opportunity of remedying the damage had been irrevocably lost.

Mr. Birkett further observed that the impediment to reduction in this case was not due to adhesions about the head of the bone in its new position, but no doubt to the smallness of the rupture in the capsule of the joint. In such cases he considered intelligent manipulation was more likely to do good than forcible measures; but failing with the former, he was induced to try the latter means, which, however, had been equally unsuccessful. The difficulty in pressing the elbow of the luxated limb to the side of the chest was as great as before, which was a characteristic sign—first, that the head of the humerus was still dislocated, and, secondly, that no fracture had occurred in the forcible attempts made at its reduction.

VENOUS CAPILLARY NÆVUS IN CUTANEOUS AND SUBCUTANEOUS TISSUE OF BACK—REMOVED BY EXCISION.

(Under the care of Mr. BIRKETT.)

This was a nævus situated a little to the spinal side of the posterior border of the scapula. It was rounded in shape, rather larger than a five-shilling piece, and prominent. The skin covering it was very thin, of a bright red colour in the centre, and of a dark blue appearance at its circumference. It did not pulsate, and could be much diminished in size by pressure. Another smaller but similar tumour existed four inches lower, and still nearer the spinal column.

Mr. Birkett removed the larger one by transfixing the tissues beneath the centre of the nævus, and cutting out wide of the nævoid growth on one side, and then completely detaching it by cutting from without inwards on the other side. Three or four vessels which bled rather freely were controlled by torsion, and a small remnant of the nævus which extended along the deep fascia beneath the superficial structures was teased away by forceps, and the edges of the wound brought together by sutures.

Mr. Birkett prefers to excise rather than to ligature such nævi as the above. In excising, however, we must look for a great alteration in the characters of the tumour directly an incision is made, as the before turgid swelling immediately collapses. Mr. Birkett thinks it better as a rule to cut through the tissues around the growth than to transfix as he did in this case, as the skin-wound is made much more evenly and accurately. On looking into the tumour after removal, it was seen to be composed of large veins and capillaries, the former of which had given the blue appearance to the circumference of the growth. The structure of nævi, Mr. Birkett added, was often compared to that of the corpus spongiosum and corpora cavernosa, but this was not invariably the case. Some time ago he had removed one which was so like those structures that he had it placed in the museum side by side with a piece of a corpus cavernosum to exhibit the great similarity between them. But in the specimen now removed there was scarcely any connective tissue between the vessels, and therefore the resemblance to those erectile tissues was not so great. This was much more like thyroid gland structure.

LONDON HOSPITAL.

CAPILLARY BRONCHITIS—DEATH.

(Under the care of Dr. RAMSKILL.)

[Reported by Mr. STEPHEN MACKENZIE.]

JAMES J., aged 31, labourer, admitted March 27, died the same night. All the history that could be elicited from his wife was that he had been in his usual health until a fortnight previous to his admission. He was then taken with a cough and shortness of breath, for which he attended Victoria-park

Hospital. He continued at work until the 25th, when he was obliged to give up. He remained at home, but not all the time in bed, until the 27th, when he walked to the Hospital. On the evening of admission his breathing was found to be laboured, but not excessively so. On examining his chest it was found to be hyper-resonant in front, and rather dull posteriorly. Scattered over the chest were sibilant and sonorous râles with prolonged expiration. Very little air entered the chest posteriorly at the base, and there was crepitation at this part. There was no cardiac bruit; no œdema of feet. During the night his breathing became more difficult, and he died rather suddenly at 4 a.m.

At the autopsy the lungs were found to be very bulky and dense; on section the lung substance was of a dark colour, and standing out from it were beads of pus which had escaped from the divided bronchial tubes. There was no collapse in any part of the lungs, nor did any part sink in water. The anterior borders and apices were very emphysematous. Bronchial tubes: From the first division to the last they contained pus, which in the last completely occupied the calibre of the tubes. In the first three divisions the longitudinal muscular fibres were very distinct, and in the terminal ones the transverse fibres were unusually prominent. Heart: The right auricle and ventricle were greatly distended, the former with a partly decolorised, the latter with an almost wholly decolorised clot, which extended some distance into the pulmonary artery. The left ventricle was flaccid, and contained some dark coagulated blood. The left auriculo-ventricular orifice admitted with ease the tips of four fingers, whilst the right was so dilated that with a little straining the whole hand could be passed through. The liver was congested. The spleen firm and rounded, cutting with a sharp edge. Kidneys firm, sharply edged, stellate veins on surface very prominent. Stomach almost empty; its mucous surface was covered with tenacious thick mucus, beneath which were numerous ecchymoses.

MIDDLESEX HOSPITAL.

NOTES OF CASES UNDER THE CARE OF DR. JOHN MURRAY.

Slightly marked Spasmodic Asthma rendered permanently Severe after an Attack of Bronchitis.

Attacks of spasmodic asthma are generally observed to be immediately dependent on some idiosyncracy, an extreme example of which is mentioned by Dr. Hyde Salter, and may be here cited—viz., "cat asthma"—the sufferer being peculiarly sensitive to the effluvium from that animal. Usually, however, certain articles of diet excite attacks, while a large number of cases originate from, or owe their severity to, attacks of bronchitis. The last cause appears to have been the case in the present instance, although it should be observed that an unusual peculiarity presented itself, if the patient's statement may be relied upon—viz., that she began to suffer from the regular attacks after recovery from the bronchitis. The patient, a female 64 years of age, had had only one attack of asthma before, and that thirty years previously. Last winter she passed through an attack of bronchitis, after recovery from which she became subject to asthmatic seizures, occurring once a fortnight and coming on "all in a minute." These attacks last not more than a few minutes, during which she becomes blue and exhausted, then brings up a little phlegm and is relieved. The case presents in many respects the ordinary symptoms of true asthma. The patient, moreover, like most asthmatics, is an intelligent, clever-looking person. The chest is prominent, but there were no abnormal sounds when we saw her in the out-patient room, she being at the time quite free from an attack. Dr. Murray had ordered ten-minim doses of ethereal tincture of lobelia, which have apparently diminished the frequency and the severity of the attacks.

Exophthalmic Goître—Graves' or Basedow's Disease.

An extremely interesting, although in many respects not well marked, example of this disease is at present under Dr. Murray's care. The subject of the affection is an unmarried dressmaker, about 47 years of age, tall, large-boned, and greatly emaciated. She came seeking relief for extreme "nervousness," which assumed at times the character almost of chorea, so fidgetty was she, especially when spoken to. Her face became at times flushed, and she appeared to cry. There was very slightly marked proptosis, but the thyroid was enlarged. The action of the heart was very rapid, and its impulse strong. Over the thyroid a double murmur was heard, and the excessive and turbulent action of the heart was accompanied by diastolic roughness at the base like friction; the cardiac area was slightly increased; there was marked epigastric pulsation; she complained of a sense of heat, intermittent in character, and the temperature in the axilla was slightly elevated; she was occasionally sick; the catamenia were irregular, and, when present, excessive; she was anæmic. She, however, did not present many other symptoms said to be found in this disease; there was no evidence of diminished power of the upper eyelid, as pointed out by Von Graefe, the upper eyelid following the movements of the eyeball upwards and downwards with facility; neither was there any pain over the cervical sympathetic ganglia, nor over the "cilio-spinal" region of the cord. However, the symptoms present were such as to justify the belief that the case was one of exophthalmic goître. The patient was ordered half-drachm doses of infusion of digitalis, with tincture of the perchloride of iron, under which treatment or belladonna Dr. Murray was of opinion the case would almost certainly improve.

Obscure Paralysis of the Left Upper Extremity.

Cases have been reported in which paralysis of an extremity has been alleged to have occurred from the person lying on the limb. The following case appeared to be one of such a character:—The patient, aged 27, presented himself with the left upper extremity partially paralysed—a condition which he attributed to his arm hanging out of bed for several hours. On close inquiry, however, he admitted that he neither knew that his arm had so been suspended or that he had lain upon it. His story may have been, therefore, pure fancy. But on full examination of the limb and the patient's general condition, the cause of the paralysis was not traced. He had been in the Middlesex Hospital two years previously with typhoid fever; since which time he had been in rather delicate health. For the past four months he had suffered from pain in the left side, and numbness in the legs after sitting for some time, which, however, left on assuming the erect posture. The history of his seizure dated from three weeks ago, when he woke up one morning with great numbness of the whole arm. He could not put his hand to his head or rotate it, and he could not close his hand, which was blanched, and felt as if dead, and there was partial loss of sensation, extending downwards from about the insertion of the deltoid muscle. He was anæmic and debilitated, but in other respects apparently quite healthy. He was seen the same morning by Mr. Lucas, the Resident Medical Officer, as a casual patient, who prescribed iodide of potassium, with galvanism. When seen by Dr. Murray three weeks after the commencement of the symptoms, the arm and the patient's general condition were as described, but less marked, he having improved under treatment. There was now considerable difference between the size of the right and left arms, which, however, may be entirely explained by his being right-handed, and by the fact of his being an iron-plate worker, and therefore accustomed to use his right hand most. There was a difference of an inch in the circumference of the forearms and half an inch of the arms. The axillary temperature was 98·2° on both sides. Although there was no reliable evidence to be obtained from the patient that he had lain on his arm, or otherwise caused local injury to the nerves, in the absence of any other apparent cause, Dr. Murray was inclined to believe that the mischief was likely due to some such cause. The patient had been taking for the last three days a mixture containing ten minims of tincture of the perchloride of iron and four minims of liquor strychnia, three times a day, and now the improvement was very marked.

A return has just been printed, by order of the House of Commons, which gives the number of deaths in the metropolitan districts in the years 1868, 1869, and 1870 upon which a coroner's jury have found a verdict of "Death from starvation," or "Death accelerated by privation." In the central division of Middlesex there died of "starvation, privation, etc.," in 1868, 8 persons; in 1869, 16; in 1870, 37. In the eastern division of Middlesex there died from the same causes, in 1868, 24 persons; in 1869, 11; in 1870, 30; and in the first two months of the present year, 1871, which are also included in the return for this district, 21 more deaths are added to the list.

Precautions against Cholera.—The authorities on the Tyne have made stringent arrangements for the Medical inspection of ships coming from the Baltic. They have also determined to establish a floating Hospital on the river. Similar arrangements are being made on the Wear and at Hartlepool.

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Medical Times and Gazette.

SATURDAY, AUGUST 12, 1871.

VERY POPULAR SCIENCE.

Year after year some new fancy startles and amuses the public who come to see the philosophers at play at the meeting of the British Association for the Advancement of Science. Whether people really gain much information, we have no means of judging, but, unfortunately, it is quite certain that science loses repute. The scientific man who advances a speculative, fanciful idea, unsupported by evidence, for the purpose of astonishing or amusing unscientific people, drags science through the dirt, and is unworthy of the position he has attained. Many an earnest worker and thinker has lately felt humiliated by the curious antics performed in public by some of those who have risen to eminence in the eyes of the people; and it is very remarkable that the chief offenders have been men who have taken a most distinguished position in the department of Physics, and from this vantage-ground have made themselves ridiculous as well as conspicuous by giving utterance to very positive assertions upon subjects the details of which they have most imperfectly considered or have not thought over at all.

An eminent Physicist thinks nothing of offering an opinion concerning the best practical method of vaccinating babies, or suggests the only perfect method of protecting himself from the invasion of contagious poisons; or he trespasses upon the province of the engineer, and delivers himself *ex cathedrâ* upon the method of sinking wells and supplying all London with the only pure water. The public applauds, and he is encouraged to propound some still more extravagant doctrine, in order to satisfy his craving for applause. Nay, Physicist endeavours to outdo Physicist, not in the rigid exactness of physical investigation, but in the extravagance of his conjectural imaginings. "There is grandeur," he exclaims, "in the idea that that most wonderful of all Nature's works, man, should have been evolved from an arboreal baboon, whose more simple ancestors, living in the dim twilight of the past, slowly perfected themselves in obedience to the fixed laws of zoological evolution." But physical evolutionists have been terribly puzzled to account for the formation of the original primeval jelly-speck. No doubt, as they tell us, it resulted from collocations of particles not previously arranged; but they admit that the laws governing the collocations in question have yet to be discovered. Such an admission is unsatisfactory to the physical mind, so it proceeds to evolve from the depths of its imagination some new hypothesis by which the difficulty involved in the admission of an original creation—a primary fiat—may be avoided, and the beginnings of life explained according to *natural laws*.

The President of the British Association, Sir William Thomson, at the meeting just concluded at Edinburgh, comes to the rescue, and presents the following solution of the riddle for the entertainment of the assembled scientific and unscientific ladies and gentlemen:—"Tracing the physical history of the earth backwards, on strict dynamical principles, we are brought," he observes, "to a red-hot melted globe on which no life could exist. *Hence, when the earth was first fit for life, there was no living thing upon it.*" And this is the very simple way in which, according to the President, our barren globe became peopled: a fragment from the ruins of some other world, "carrying seed and living plants and *animals*," (!) alighted on our barren planet, and thus supplied it with life. The germs thus deposited would soon increase, and in this simple manner our earth was overrun with low forms of life, from which the higher gradually proceeded by evolution. Sir W. Thomson said that he had taxed the patience of his audience so severely that he thought it better not to discuss the *objections* to his hypothesis. He therefore contented himself with maintaining that it was not "unscientific." It would, however, be as futile to attempt in these days to decide what was scientific and what *un*scientific, what philosophical and what *un*philosophical, as it would be to define a philosopher, a biologist, a materialist, a spiritualist, or an evolutionist. Nor shall we offend our readers by suggesting *seriatim* the many obvious objections to this last and most grotesque conjecture of the physical imagination, but shall merely direct their attention to a paragraph from the address of Prof. P. G. Tait, President of Section A:—

"There must always be wide limits of uncertainty (unless we choose to look upon Physics as a necessarily finite science) concerning the exact boundary between the Attainable and the Unattainable. One herd of ignorant people, with the sole *prestige* of rapidly increasing numbers, and with the adhesion of a few fanatical deserters from the ranks of science, refuse to admit that all the phenomena, even of ordinary dead matter, are strictly and exclusively in the domain of physical science. On the other hand, there is a numerous group, not in the slightest degree entitled to rank as Physicists—though in general they assume the proud title of Philosophers—who assert that not merely Life, but even Volition and Consciousness, are mere physical manifestations. These opposite errors, into neither of which it is possible for a genuine scientific man to fall, so long at least as he retains his reason, are easily seen to be very closely allied. They are both to be attributed to that Credulity which is characteristic alike of Ignorance and of Incapacity. Unfortunately there is no cure—the case is hopeless—for great ignorance almost necessarily presumes incapacity, whether it shows itself in the comparatively harmless folly of the Spiritualist, or in the pernicious nonsense of the Materialist."

NEC SEMPER ARCUM TENDIT APOLLO.

"—Carpe diem,
Cras ingens iterabimus æquor."

From time to time, as seasons pass and emergencies arise, we are accustomed to address to our readers a word of counsel or of gratulation, to send out a note of warning or of thanks; but it is not often that we speak to the hardest-worked Profession in the world on the subject of what to many is a sound of gladness—that is, holidays. Of the two other learned professions, the church and the bar, neither can compare with ours in the absolute necessity for sticking to work. A clergyman may get a neighbour to fill his pulpit, or, at the worst, may secure the services of some unattached curate; but who among struggling Medical Practitioners can venture to make such an experiment?—one, indeed, that might be fatal to his hopes of success. Again, the bar tenaciously cling to their long vacation; and although in this they may be imitated by the heads of our own Profession, who among the rank and file, who

constitute its great bulk, could venture, unless absolutely compelled to do so by ill-health, to leave his patients so long to themselves? And yet in our Profession there is greater need for a period of rest than in either of the others; for they have their quiet nights' rest, however short, but this to the members of our Profession is rarely secure, to many certain of interruption. To them, also, it is possible for a time to get rid of the cares and toils of professional work; not so with us. Most frequently there is some case looming in the distance, close at hand, or in actual progress, which tasks all our skill and ingenuity, and which can but rarely, for the time being, be absent from our thoughts. Many more considerations might be urged why holidays, when possible, should be readily embraced by Medical men, but there is only one we care to adduce—the many melancholy instances known to all of men who have succumbed to actual hard work. And if example be better than precept, we have the universal example of the heads of our Profession to fall back on. These, if consulted, will tell us that the time spent *en vacance* they consider spent wisely and well; in point of fact, continuous work in London is only possible at the risk of breaking down utterly. But as a prolonged vacation is not possible to all, and as it is important that the limited period available for this purpose should be utilised to the uttermost, a few words may be said on the *art of holiday-making*. Men are so differently attuned that any detailed directions on the subject would be worse than useless. Nevertheless, there are some so obvious that a moment's reflection is sure to enforce them on everyone. We take it, then, the essence of holiday-making is as complete a break in the tenor of one's life as possible; and though the run round the Nore, the Sunday at Brighton or Margate, which are so popular with Londoners, are good in themselves, they are very far from being an unmitigated good. Thus, there is the breakfast generally earlier than usual, the hurrying and scurrying to catch the boat or train—enough to upset anybody for the day. It is true, there is complete relaxation from the ordinary labours of life, but then there is the cramp of the confined railway-carriages or the little ease of the steamboat; there is the drinking of more beer or wine than usual, to relieve the *ennui* occasioned by the lack of ordinary employment, the smoking of many cigars at unusual times, the dinner unsatisfactory, and bolted or partaken of at a time to which you are altogether unaccustomed, and the return home dog-tired, dissatisfied, and very likely ill. Such is the history of many a so-called holiday; and though it may be looked upon as a type of a vulgar class, still there are other ways of spending short vacations equally unscientific and unsanitary. Of these, we may take a short tour on the Continent as the type. Such tours are of undoubted service in enlightening the mind, and are a thorough change, as far as mental work is concerned; but the bodily fatigue of rushing from place to place, "doing" this church and that picture gallery, the change in diet not lasting long enough to do good, but only to upset, with, finally, the lack of domestic sanitation of every kind, so common on the Continent, all combine to render a week or ten days' tour abroad a nuisance rather than a safety-valve. They are wise in their generation who spend their time in places like Brighton or Margate, Yarmouth or Scarborough: there at least a man may take his *otium cum dignitate*, he can enjoy the pleasures of life with the benefit of sea air, he may choose his own time when to dine and when to sup (and these are no unimportant matters when a man is laying in his stock of health for the year), and he may dine and sup like a Christian. But wiser far is the man who with as light luggage as possible—and it is amazing how little is required—sets out to seek for himself one of the quiet English hamlets, where he may revert to the simple manners of wholesome English life, and, having but little to entangle him, may move from place to place, as suits him, seeking out those charming bits of scenery found but in England, though to many utterly unknown. To the bachelor, the knapsack life is delightful—the sense of freedom and unrestraint is in itself a pleasure. Then, again, the old coaching days secured for England a multitude of inns, mostly commodious, almost always comfortable. These may be made head-quarters, and the country scoured for the purposes of sight-seeing, as times and seasons serve. Usually an arrangement can be come to with regard to board and lodging which insures good fare at half the ordinary charges, provided a week's residence is guaranteed. Now, by this knapsack life, we do not mean the absurd practice of binding oneself down to five-and-twenty or thirty miles a day—there is about as much sense in this as sending a stout, short-winded City man to do the Higher Alps; we mean that easy dawdling along, enjoying each bit of scenery, with plenty of time to go out of the way to secure a fine view, dining here and supping there, each place of rest being fixed upon with due regard to comfort and convenience. Then are acquired health and strength, with complete change in one's mode of life, without any violent wrench or dislocation. Distrust those enormous distances done, and those tremendous passes surmounted; it is not thus one reaps the full benefit of one's holiday.

But to paterfamilias, with his numerous olive branches, this kind of thing is impossible; well, for him, too, we have a recipe. There are yet, thank Heaven, many unsophisticated sea-side hamlets where lodgings may be had at a cheap rate, and where wives and daughters need not spend half the day in changing their costumes. There is a sound rule for selecting such places: always fix upon one three or four miles from a railway; once it has been tapped by a railway such a pleasant place is doomed. There the little ones may dabble in the sea under the maternal superintendence; the *pater* himself may lie on the grass over the cliffs, indulging to his fill in the *dolce far niente*. For him the regular sea-side watering-place would be purgatory; but he may go where bathing-machines, with all their accompanying horrors, are unknown, and where he, with his family, may enjoy a rational holiday at a reasonable cost. There is but one hint we would give him. Let him be careful to provide himself beforehand with everything beyond the bare necessaries of life. Mutton can always be had, beef more rarely; bread, sound and wholesome, of country make, is everywhere obtainable; butter is such as is not to be had in London; the vegetables not to be compared with, in the same breath, those we use every day. But there we must stop. The tea is usually execrable, the coffee worse, the beer not always good; but these things are easily remedied if due warning be given, or they may be borne—better that, far, than the second-rate splendours of a semi-fashionable watering-place.

THE CHOLERA.

There is not much more to report as to the progress of cholera, but what little there is is highly significant. Asiatic cholera has entered Germany. During the first three days of August, seventeen fatal cases occurred in Königsberg, the first being that of a Polish merchant, who arrived at Königsberg from Wirballen. In Riga, seventy-five deaths from cholera were reported between July 5 and 22; and a death from the disease has occurred on board a ship arriving at Hull, and on board one arriving at Dundee, both during the passage; while the last Registrar-General's Report shows that in London the deaths from diarrhœa, which have been below the average, rose last week to 225.

These accounts suffice to show that cholera is actually once more knocking at our very doors, though it is only some ten days since, in answer to questions in Parliament, the Government informed us that the alarm expressed about the approach of cholera was "to some extent unfounded"; that they had no knowledge of any spread of cholera on the Continent that boded immediate danger to this country; and that there was

no reason for immediate alarm, or for any particular action of central authority. The Privy Council, however, as we noted last week, had taken action, had sent Mr. Radcliffe to visit some of our ports and rouse up the local sanitary authorities, and had issued an order empowering and directing them to deal with infected ships and persons before they could enter a port. Probably very few people believe, however, that cholera will be kept out of the country in that way; and the most pertinent and home question is, supposing cholera amongst us, are we in any sense and any degree better armed against it than on former occasions? The epidemic of 1866 impressed upon us clearly and forcibly some invaluable lessons as to the mode of propagation of the disease, and the measures by which it might be effectually controlled. What use has been made of what we then learnt? Has Government done anything whatever to help us to that first of all needs and protections—an ample supply of pure, wholesome water? Have we any readier or more effectual means of preventing overcrowding and contagion—of separating and providing for the sick? We suppose the universal reply will be, that, so far as Government is concerned, we are no whit better off than we were five years ago; that everything to defend ourselves against our Asiatic enemy will have to be done in the midst of a panic; and that, however bravely and well we may fight, we shall owe no thanks to Government. Happily, we have a strong and determined guide and adviser in the Medical Officer of the Privy Council, and we may feel assured that all that Department can do will be well and effectually done; and the Medical Profession will, as usual, do its duty zealously, courageously, and skilfully. But it is bitterly disappointing that, with all that is so well proved and known of our great need of definite, clear, and strong sanitary measures, and with what is called a strong Government, year after year passes, and no help is given in our fight against preventible disease. We, in this journal, are no politicians—we care not whether Radicals, Whigs, or Tories are in power, so long as we can see the public health cared for; and we have a right to complain loudly when we see session after session of Parliament spent in party strife, and over political panaceas and crotchets, while overcrowding, dirt, disease, and death are left by Government to work their will against the health and lives of the people.

THE WEEK.

TOPICS OF THE DAY.

THE *Gazette* of Friday, August 4, contained the following announcement:—

"*Whitehall, August* 2.—The Queen has been pleased to direct letters patent to be passed under the Great Seal granting the dignity of a baronet of the United Kingdom of Great Britain and Ireland unto James Paget, of Harewood-place, in the parish of St. George, Hanover-square, in the county of Middlesex, Esq., Serjeant-Surgeon Extraordinary to Her Majesty, and the heirs male of his body lawfully begotten."

We only represent the universal feeling of the Profession when we express very great satisfaction at the bestowal of this honour on one of the most accomplished and philosophical Surgeons and on one of the most excellent men that has ever adorned Medicine in any age or country. Comparatively early in his career, Sir James Paget has achieved a success which is hardly to be surpassed; but we believe there is not a Medical or Surgical Practitioner living who would assert that the success was disproportionate to his merits. We heartily congratulate Sir James Paget on his baronetcy, we heartily congratulate the Profession on the honour bestowed upon one of its worthiest members, and, lastly, we congratulate the advisers of the Crown on having, in this instance at least, advised an exercise of the Royal prerogative against which, not only no dissentient voice will be raised, but which will command universal approval.

Dr. Ballard, the indefatigable Health Officer of Islington, has accepted a Medical Inspectorship under the Privy Council. The Medical Officer of the Privy Council is to be congratulated on thus obtaining the services of one of the most distinguished sanitarians in Europe. The Islington Vestry has lost a first-rate Medical Officer, and the country has gained one. How little the former appreciated the value of Dr. Ballard's services is proved by the fact, that although the population of the parish since 1856—Dr. Ballard's period of service—has increased from 100,000 to much over 200,000, the Vestry have just reduced the salary of the Medical Officer to £250 per annum—a sum at which they expect to obtain a suitable successor to Dr. Ballard. They have even deliberated on the question whether the salary of their Medical Officer of Health should not be £200. The new officer will have to reside in Islington, where it seems likely that cholera may give him plenty of work. We hear, however, that the leading Practitioners of the district are not likely to come forward as candidates. We do not wonder at it, for the Islington Vestry must be pleasant people to work with.

At St. Mary's Hospital Medical School, Dr. Handfield Jones has been appointed Clinical Lecturer in Medicine, and Mr. Spencer Smith, Clinical Lecturer in Surgery. Dr. Broadbent has been appointed Lecturer on Medicine, in conjunction with Dr. Chambers; and Mr. Gascoyen, Lecturer in Surgery, in conjunction with Mr. J. R. Lane. Dr. Nunneley has been appointed Lecturer on Histology and Experimental Physiology.

A committee has been formed of the late Dr. Miller's colleagues at King's College, for the purpose of founding a memorial of their late distinguished *confrère*. Dr. Guy is the treasurer. It is intended to raise a fund for a bust or portrait of Dr. Miller, and the institution of a prize or scholarship in connexion with King's College, and bearing his name. The subscription is to be limited to one guinea.

ROYAL VISIT TO ST. VINCENT'S HOSPITAL, DUBLIN.

ON the afternoon of Thursday, the 3rd inst., H.R.H. the Prince of Wales, H.R.H. Prince Arthur, H.R.H. Princess Louise, and the Marquis of Lorne, accompanied by his Excellency the Lord Lieutenant of Ireland, the Countess Spencer, and a distinguished party, paid a visit to the above Institution in Stephen's-green. Their Royal Highnesses were received by his Eminence Cardinal Cullen, and by the following members of the Medical staff of the Hospital, by whom they were conducted through the various wards:—Dr. Mapother, Mr. O'Leary, Mr. William Izod O'Dogherty, Surgeon-Dentist; Mr. Boland, Apothecary, etc. The illustrious visitors expressed their gratification at the perfect neatness and cleanliness of the Hospital. On leaving they were loudly cheered by a large concourse of people who had assembled in front of the building.

ARMY MEDICAL DEPARTMENT.

THE competitive examination for admission to the Medical service of the army commenced at the London University, at 10 a.m., on Wednesday, the 9th inst. Thirty-five candidates presented themselves. Ireland contributes, as usual, much the larger number—namely, twenty-one; England twelve, and Scotland two. The proportion of candidates from the English schools is, we believe, rather larger than heretofore, and may be considered indicative of a diminution of the ill-will with which the Army Medical Service has for so long been regarded by English students. The class of candidates at present undergoing examination is considered rather above the average, and includes five Bachelors of Arts of Dublin, one of Oxford, and one Master of Arts of Cambridge. None of the candidates possess degrees from the London University. The number of vacancies, we understand, is not yet definitely settled, but it will probably be about twelve.

VACCINATION IN THE METROPOLIS.

The Government report on vaccination, just made public, shows that in the year ending Michaelmas, 1870, 41,444 vaccinations were performed. Of these, 40,842 were successful—namely, 35,266 under one year old, and 5266 above a year old. The births registered in the same period were 112,250, or more than three times the number of infants under one year old, successfully vaccinated. The vaccinations in private practice have to be added, but those in poor districts would fall short of making the number what it should be. There can be no doubt that in places where the clauses of the Vaccination Act are vigorously carried out, a very large proportion of the children are vaccinated. Thomas W. Yardley, prosecutor under the Vaccination Act for St. Giles and St. George's, Bloomsbury, in a letter to the *Times*, gives us the following facts:—He states that in his district the number of births in the year ending Michaelmas, 1870, was 1836, and of these 96 died before vaccination could be performed, and 1503 were duly certified as successfully vaccinated, leaving only 237 unvaccinated, or, more properly, uncertified as vaccinated; showing, as Mr. Yardley says, that even with our present means, which are far from satisfactory, vaccination may be rendered much more effective than it appears to have been generally by the returns.

AID TO HOSPITALS.

The upspringing of special Hospitals in all quarters of London, and the calls upon the charitable by the late war, have interfered materially with the income from voluntary aid of our unendowed Hospitals. In the far east and the far west this has been demonstrated. The London Hospital and St. George's Hospital have suffered severely from the above and other causes. Appeals to the rich and influential inhabitants of Belgravia and Tyburnia have resulted in assistance inadequate for the purpose, and not creditable to the neighbourhood. The London Hospital is in debt, and its income has fallen off. Accordingly, an association has been formed by the tradesmen of East London for the purpose of raising funds in its aid. Hitherto the donations to this Hospital have been on a scale of munificence rarely equalled. We trust the present movement may have results which will put to shame the shortcomings of West London.

A PELVIS COMMITTEE.

Amongst the useful works chalked out by the Obstetrical Society is the collection of specimens of the pelves (male and female) of the various races, together with, if possible, fœtal heads at term; the collection of abnormal female pelves, or casts; the collection of histories, drawings, or photographs, and descriptions of abnormal pelves, where it is not possible to procure the pelves themselves, or casts. To carry out this work a "Pelvis Committee" has been appointed. It is suggested that, as the vacation will be scattering the Fellows of the Society in various directions, they might lend material aid to the Committee, and at the same time attain a pleasant and instructive motive for their wanderings, if they would undertake to visit such museums and collections as may fall in their way; taking note of the objects of interest they may contain, and opening communications with the authorities, with a view to the procuring casts, photographs, descriptions, etc. Gentlemen about to start on their tour, who may wish to help in this way, are invited to write for instructions and introductions to the secretaries, Dr. Wiltshire and Dr. Heywood Smith.

THE CHOLERA.

The Corporations and Town Commissioners throughout Ireland have been peremptorily called upon to look to the thorough cleansing of the various cities and towns under their control, owing to the threatened approach of cholera from the East.

DECLINE OF SMALL-POX IN LONDON.

Small-pox is steadily but largely on the decline in the various Hospitals of London. On Saturday last a report from the various Hospital Committees was read at a meeting of the Metropolitan Asylums Board. These reports proved the decline in the epidemic. In most of the Hospitals no less than half the beds are vacant.

SMALL-POX IN MANCHESTER.

Manchester has suffered severely from the epidemic of small-pox. We are happy to state that the malady is rapidly disappearing. The report of the Officer of Health of the Manchester City Council is highly satisfactory. On June 19 the number of unvaccinated persons was 611, and the 29th ult. they had been reduced to 209. The diminution was confirmed by the return of cases of small-pox. On the 15th ult. the cases had come down to 105 from 113, and on July 29 to ninety. The number of deaths had been, for the week ending July 8, eight; July 15, twenty-one; and July 22, nine. The Medical Officer attributes much of the decrease of the disease to the energetic action of the Health Committee.

DR. HAUGHTON AND ROYALTY.

We extract the following from the *Dublin Evening Telegraph*. The subject is attracting a good deal of attention in Dublin, and the narrative and the comments will not be without interest to our brethren on this side of the Irish Channel. The anecdote is highly characteristic:—

"The Rev. Dr. Haughton is a bold little man. Everybody knows him for a man of European reputation, a Fellow of Trinity College, a clergyman, a Doctor, member of all sorts of learned societies, a good lecturer, zoologist, and, of course, as secretary to the Zoological Society, having charge of the gardens in the park. The Lord Lieutenant's secretary wrote to Dr. Haughton, asking him to summon a meeting of the Council on Sunday to receive the Prince of Wales and the rest of the Royal party. Dr. Haughton wrote a very polite rejoinder, saying he would do nothing of the kind. The secretary called on Dr. Haughton, believing there must be some mistake, but was informed there was no mistake on the Doctor's part. We think Dr. Haughton has acted very independently, and has shown a proper dignity in this business. To visit the gardens on a Sunday is legitimate recreation, and the Prince and his friends can get in like other people, except that probably they need not pay a penny a-piece at the door. That the Council should meet on a Sunday and go through the tedious form of welcome is totally unnecessary, and would not be proper. Dr. Haughton's conduct is what we might have expected from him, though we doubt, from what we have seen for the last two days, if there are a dozen who would do likewise."

THE DUBLIN RIOTS.

We observe that some of our daily contemporaries, mentioning the injuries inflicted during the recent riots in Dublin, frequently allude to the sufferers having been taken to "St. Stephen's" Hospital. The Hospital in question having been founded and endowed by a member of the Medical Profession, we think it would be only fair that, when mentioned, it should be designated by its correct title, "Dr. Steevens's Hospital," in accordance with the wishes of its benevolent founder.

THE 18TH HUSSARS AT SECUNDERABAD.

Doctor Brady gave notice early this week of his intention to put some questions to the Secretary of State for War, on Thursday, the 10th inst., concerning the mortality caused among the 18th Hussars at Secunderabad by the recent outbreak of cholera; the site and sanitary condition of the station and barracks; any recommendations which have been made on these matters by the local military and Medical authorities; and the reasons for keeping the 18th Hussars for seven years at a station reported to be so unhealthy as Secunderabad. The questions are probably being put, and the replies given, as we are going to press.

HEALTH OF MAURITIUS.

By latest accounts from Mauritius, we learn that during April and May malarious fevers had become much more prevalent in the southern and eastern parts of the island, which had hitherto comparatively escaped. The disease is limited mostly to the coolie labourers. During April, in the Maheburg district, 57 deaths occurred, and the death-rate at Grand Port during April became double, and during May treble, what it had been during the corresponding months of the previous year, having increased to 179 as compared with 60. The reappearance of the disease during the early winter months has caused considerable anxiety among the local authorities. The Colonial Legislature is not in a position to carry out the necessary sanitary measures, and altogether the health prospects of the colony are very gloomy. The troops thus far have enjoyed tolerably good health.

SANITARY IMPROVEMENTS IN CALCUTTA.

The influence of sanitary improvements on the public health in Calcutta has been strikingly exemplified during the last six years. Dr. Tonnerre, the health officer of the town, reports the death-rates as under:—In 1865 they were 23,242; in 1866, 20,283; in 1867, 12,097; in 1868, 13,733; in 1869, 12,795; and in 1870, 10,102. He thinks this improved condition of the population is mainly due to the vast sanitary improvements which have been made in the city and its environs.

FROM ABROAD.—PROPOSED TAXING OF THE FRENCH SCIENTIFIC PRESS—LYONS *versus* NANCY—M. FAUVEL ON THE COURSE OF THE CHOLERA.

In the present stress for taxable objects the French Scientific Press seems to be likely to be subjected to great hardships, and especially a portion of its Medical branch. The Bill before the Assembly contemplates subjecting it in common with the political press to the *cautionment* or deposit of money (18,000 francs) to meet liabilities, to a stamp and to increased postage. The *cautionment* acts very partially, as it only applies to journals which appear oftener than once a week, of which we believe there are only three Medical. To be sure this will give them the right to discuss political or Medico-political subjects, which hitherto they have been prohibited doing. Indeed, such prohibition has heretofore been carried out in the most ridiculous manner, such questions as the supply of water to Paris or the decrease of population in France having been amongst those interdicted. Still, the journals in question consider sinking so large a capital too high a sum for the accordance of a privilege which would not be expected to be withheld under the present more liberal *régime*. As to the stamp, M. Latour has calculated that as far as the *Union Médicale* is concerned a stamp of two centimes would lead to a loss of half the profits, while one of from three to five centimes would be attended by a deficit of from six to sixteen thousand francs. To calculate upon meeting this by an increase of subscribers or throwing its payment upon them is futile, especially in the present impoverished state of the Profession, and it is to be feared that the payments to contributors will have to be diminished. The amount of increased postage has not yet been determined on; but M. Latour takes the occasion to protest against the present practice in France of charging according to weight instead of by the dimensions or number of sheets. To this he in part refers the great falling off, as compared with former times, in the quality of the paper employed for printing, the object being to obtain this as light as possible. This is the case with modern books, while the newspapers are composed of the most flimsy and detestable material.

The Syndicat, or Association of the Scientific Press, has just presented a petition to the Assembly, in which the prospective evils of the proposed legislation are powerfully set forth. It is observed that, seeing the immense advantages conferred by the Scientific Press, it would seem to be the duty of those in power to encourage its efforts, instead of placing obstacles in its way; and under most *régimes* it has usually enjoyed immunities denied to the general press. As at present most of the scientific journals are carried on at little or no profit, the imposition of any tax or increased postage must lead to the suppression of many of them. With them, indeed, the resort to the post is obligatory, as, their subscribers lying scattered about, parcels of their journals cannot be sent by the railway, as is the case with the political journals. Neither additional subscribers nor advertisements can be hoped for to meet the proposed increased taxation.

The provoking thing is, that after all this mischief has been done, the gains of the national exchequer will be infinitesimal. Estimating the entire mass of scientific weekly journals at a maximum of 100,000 copies, and the additional tax at two centimes, this will only produce 104,000 fr. per annum. Even losses may ensue, for many of the journals will come to an end, or their subscribers will diminish in number. The petitioners quote the *Gazette des Hôpitaux* as an instance pregnant with instruction. Formerly, when submitted to a stamp duty, only 1200 copies were printed, and their postage produced 3000 fr. When the stamp duty had been abolished, the price of the journal was diminished, and while the number printed reached 7000, the postage increased to 20,000 fr. If the stamp is reimposed, and the journal returns to its former price, all this will be reversed. While, as is probable, if it be published only once, instead of (as at present) thrice, a week, in order to avoid the *cautionment*, the sum it pays for postage will be reduced two-thirds, and even much less, by reason of the certain falling off of subscribers. Moreover, it is to be expected that many journals will follow the example of the *Courrier des Familles*, and get their printing done in Belgium, where both paper and printing cost so much less as to more than cover the extra postage.

The question of the transfer of the Medical Faculty of Strasburg to Lyons or Nancy still excites much interest in French Medical circles, and last week M. Léon Le Fort addressed an excellent letter on the subject to the Budget Committee of the Assembly, strongly advocating the superior claims of Lyons. He points out that the notion of translating this Faculty to Nancy is a mere matter of sentiment, which is in clear contradiction to the necessities of Medical education. Strasburg, placed in the very midst of German-speaking people, had served as an intermedium between scientific Germany and France, its professors, by their publications and analyses, keeping the French, utterly ignorant as they are of foreign languages, to some extent acquainted with the scientific movement going on in Germany. It is evident that Nancy could perform no such function as this, for the intercourse and union of peoples is not an affair of mere distance. We (for this observation applies to us as much as to the French) are far better acquainted with what is going on in the United States than with what is done in Holland, and especially in Russia. Nancy may be near the frontier, but it is, in all matters of the intellect, solely and emphatically a French town, in which German is no more spoken than at Lyons. Again, for teaching law, theology, letters, and the physical sciences, lecture-rooms, libraries, laboratories, and museums suffice; but for Medicine it is quite a different matter. It is at the Hospital, and only at the Hospital, that this can be learned, for the patient is the book which conveys instruction alike to the pupil and the professor, and it is only in large towns, and even in large manufacturing centres, that Medical studies can be effectually carried on. It is not the shopkeeper or *rentier* who has recourse to Hospitals, but the working man. Happily for itself, Nancy is in this matter in a very bad position, having but few inhabitants, small manufactories, and few poor. Lyons is in exactly an opposite condition, and if there are to be two Faculties in France, one should be at Paris and the

other at Lyons (Montpellier is usually assumed in the discussion to be a mere accidental superfluity); and Nancy, indeed, could only put in a claim after Marseilles, Lille, Bordeaux, Rouen, Nantes, etc. Lyons is richly supplied with Hospitals, some of which, as the Venereal and Lying-in Hospitals, are also important in their special point of view. Finally, there is the recruital of the professorial body to be taken into account, and it is to be hoped that eventually there will be organised among the French Faculties and schools an imitation of the system of promotion among professorial chairs that has been found so eminently serviceable to science in Germany.

In the meantime the question has become somewhat complicated, by the fact that several of the Professors and Agrégés of the Strasburg Faculty have united themselves together in order to establish a Free Faculty, having for its object to constitute a bond of union between France and Germany. Of course this would signify a consent of the Prussian Government, concerning which as yet we have heard nothing.

In regard to the possible invasion of a new epidemic of cholera, M. Fauvel, a great authority on the subject in France, has just read a note at the Académie de Médecine. His view of the matter is more reassuring than that derivable from the correspondents of the political journals. He observes that the present epidemic is remarkable for the comparatively few persons who have been attacked, and by the slowness of its development and extension. At St. Petersburg, where it has now prevailed for a long time, it scarcely excites any attention. M. Fauvel, being a strong partisan of the doctrine of importation, is chiefly concerned with tracing the route which the epidemic has pursued. Since the great epidemic of 1865 the cholera has scarcely ever been absent from Kiew. In the winter of 1869, however, it was but little observed there, but in February, 1870, it showed itself at Moscow, and by July had penetrated to the countries watered by the Don and the shores of the Sea of Azof and of the Black Sea. Odessa and the other cities engaged on a large scale in the corn trade have paid their tribute to it, but only on a very moderate scale. Since September it has disappeared from those localities. The shore of the Black Sea belonging to Turkey has been completely exonerated—a fact, according to M. Fauvel, due to the severity of the quarantine there established. At the same time, the cholera took an opposite course towards the north, making its appearance at St. Petersburg on September 5. Little was said about it at the beginning of winter, but it became more intense in February, reached its apogee in March, and diminished in May. Up to that time there had been only 1294 cases, with 754 deaths, and no reliable statistics have since been published. In July a recrudescence occurred, as many as fifty persons being attacked per diem. What is of more consequence is the disposition of the epidemic to extend westwards, a dispatch dated July 29 having announced that cholera had reached Wilna on the Prussian frontier, which it has not yet, however, traversed. It also prevails at Riga, which is a fact of importance, owing to the commercial relations of this town with England. On the other hand, cholera has raged violently in India, and has prevailed since 1869 in Persia, where there was a recrudescence in 1870, owing to an annual afflux of pilgrims. Last year it extended to Africa towards Zanzibar, and is extending towards the south. Amidst all this, the pilgrimage to Mecca has this year escaped the scourge, and has been performed under the most favourable conditions. From this direction nothing is to be feared, the north-east being the point of danger; and here M. Fauvel observes it is not imminent, and need not cause alarm as long as the epidemic has not entered Germany.

PARLIAMENTARY.—PAYMENT TO MEDICAL WITNESSES.

In the House of Commons, on Thursday, August 3,

In answer to Mr. C. Bentinck,

Mr. Bruce said he had no personal knowledge of the allowance made to Mr. Oliver Pemberton, Surgeon, of Birmingham, for attending the Carlisle Assizes as a witness on the Murphy riots —second-class fare and a guinea; or of the opinion expressed by the Lord Chief Baron that the allowance ought to be largely increased; and no communication on the subject had been received by the Treasury, which had power to increase allowances under special circumstances.

REPORT OF THE POOR-LAW BOARD.

No. I.

The twenty-third annual report of the Poor-law Board, just issued, brings down the history of that Department to May 31 last. It enters much less fully than recent previous reports into matters affecting the sick poor or the Medical Profession, and we have therefore but few portions of it to bring under special notice.

Before entering upon a consideration of those portions which relate to Medical relief, the Dispensary system, and the small-pox epidemic, it will be well to see what the Poor-law Board has to say in reference to poor-rates and pauperism. Whether it be in consequence of the probability of approaching changes in the constitution of the Board, or because it has reached comparatively smooth water since the passing of the Union Chargeability Act and the Metropolitan Poor Acts, the report is somewhat dull reading by the side of many of its predecessors. It is satisfactory, however, to find that but £7,644,307 was expended for the relief of the poor during the year 1869-70, as against £7,673,100 in the year 1868-9; being a decrease of £28,793, or at the rate of 0·4 per cent. A turning-point seems to have been reached in respect to this item, and the anticipations indulged by Mr. Goschen in the last report to have been to a certain extent verified. In each of the years ended Lady-day, 1867, 1868, and 1869, there was an increase in the total expenditure and in the rate per head on the population, as compared with the several years immediately preceding; whereas in the year ended Lady-day, 1870, there has been a decrease of £28,793 (or 0·4 per cent.), as above stated, in the expenditure, and a decrease of 1¼d. in the rate per head on the population.

As regards the classes of persons relieved, it may, of course, be accepted as a cardinal point that the nearer we can approach to a system under which relief shall be given to none but the sick, the aged, and children, the nearer we shall be to perfection. The first step in that direction appears to have been taken, for we find that, as regards adult able-bodied paupers, there was a decrease in the numbers relieved in July, 1870, as against July, 1869, of 361, or 0·2 per cent.; and in January, 1871, as compared with January, 1870, of 4465, or 2·3 per cent.

But though the past parochial year may, as regards the above-mentioned items, contrast favourably with its immediate predecessors, the report acknowledges a serious increase in the *cost* of relief during the past ten years. Comparing 1870 with 1861, we find that the following have been the rates of increase in the metropolis:—In-maintenance 52·5 per cent., out-relief 97·8 per cent.; total relief (including salaries, etc.) 76·2 per cent. In the North-Western division (including Lancashire and Cheshire):—In-maintenance 79·3 per cent., out-relief 46·9 per cent.; total relief (including salaries, etc.) 57·1 per cent. In the remainder of the country:—In-maintenance 37·1 per cent., out-relief 12·1 per cent.; total relief (including salaries, etc.) 21·1 per cent. From the figures given above, taken in connexion with tables in the report showing the numbers of paupers of all classes relieved during the same years, it appears that the rate of increase in the number of paupers in 1870 over 1871 is considerably less than the rate of increase in the expenditure. This the report states may be partly accounted for by some of the following causes, viz.:—a more liberal scale of relief; improved accommodation; a rise in the prices of provisions, clothing, and buildings; increased salaries, and additions to the administrative staff. It must also be borne in mind that during the decennial period above referred to there have occurred the cotton famine (1862-4), the commercial crisis (1866), and the distress in the East of London (1866-68). In 1865-7, too, there was the agitation for increased accommodation for the sick poor, and, as regards the metropolis, this may in great part account for the increase. If the fact be so, it is but the natural result of the determination of the public that

the sick and infirm should be properly cared for, and is a result at which none will be inclined to grumble, provided the money has been wisely laid out.

Before quitting this portion of the subject, it seems but fair to quote from the report in regard to certain of the effects of recent legislation :—"During the period of ten years from 1861 to 1870, three Acts of Parliament have been passed making important changes in the administration of relief, and in the incidence of its cost. In 1861 the Irremovable Poor Act (24th and 25th Vic., c. 55.) was passed, which limited the power of removal by a reduction of the period of residence conferring irremovability from five years to three, and extended the area of residence from the parish to the union. It also directed that the contributions of the several parishes in a union to the common fund should be made according to their rateable value, instead of according to their annual expenditure.

"In 1865 the Union Chargeability Act (28th and 29th Vic., c. 79) was passed, carrying the same principles into further operation by reducing the period of residence which confers irremovability to one year, and extending the charge upon the common fund in unions for the relief of the poor, which had been previously confined to certain classes only, so as to include the relief of all the poor in the union.

"In 1867 the Metropolitan Poor Act (30th Vic., c. 6) was passed, providing for the establishment of district asylums for the reception and relief of the sick, insane, and infirm classes of paupers in the metropolis, and for the building of dispensaries; and also providing for the establishment of a common poor-fund, raised by contributions from the several unions and parishes, according to their annual rateable value, out of which the relief of certain classes of paupers in the whole district should be paid. The two former Acts apply to the whole kingdom, the last to the metropolis only.

"Whether or not the first two Acts may have had any effect in occasioning an increase of the aggregate expenditure throughout the kingdom we have no evidence to show; but there can be no doubt that the limitation of the power of removal must have tended to augment the charge upon the towns as compared with the rural unions. With regard to the Metropolitan Poor Act, one of its principal objects was the extension and improvement of the accommodation for sick paupers, and it therefore authorised measures to be taken for the erection of several large and expensive asylums and other buildings, for the cost of which, as well as for the enlargement and improvement of the existing workhouses and sick wards, loans have been obtained during the last three years to the amount of £1,424,972. At the same time the large increase in the metropolis, which we have already mentioned, took place in the current expenditure for in-maintenance and for out-relief. The commercial crisis in the year 1866 may be considered to have been in a great measure the cause of this increase, although the effect of the crisis does not appear to have been fully felt by the labouring population for some months subsequently. The expenditure for out-relief in the metropolis for the year ended at Lady-day, 1866, was £233,569, in the year ended at Lady-day, 1868 (two years afterwards), it had increased to £378,212, being a difference of £144,643, or 62 per cent. During the same interval the price of wheat had risen from 43s. 6d. to 67s. 6d. per quarter, an increase of price which would affect the cost, not only of out-relief but also of in-maintenance. At the same time the alteration in the law of removal which took effect at Lady-day, 1866, would tend to prevent the metropolitan unions and parishes from relieving themselves from the burden which the commercial crisis had brought upon them by limiting their power of removing persons who had become chargeable to those only who had not been resident in the union or parish for one year without receiving relief. Moreover, the circumstances to which we have referred in our annual report for the year 1867, as having been the immediate cause of the passing of the Metropolitan Poor Act, combined with the existing distress and the then prevalent popular feeling, had the effect of inducing a more liberal administration of relief; and it may be inferred that the guardians would not be less willing to incur additional expenditure when, under the provisions of the Act, the relief of certain classes of paupers became a charge, not on their union or parish, but on the common fund raised by contributions from all the parishes and unions in the metropolitan district. With regard to the expenditure necessary for providing adequate relief for the sick poor, there can be no doubt that whatever is required for their proper care and treatment, both Medically and otherwise, will be fully approved and readily granted, although even this expenditure requires to be carefully watched."

(*To be continued.*)

BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

REPORT OF THE FORTY-FIRST MEETING.

EDINBURGH, August 9, 1871.

INTRODUCTORY.

THE work of the Association has proceeded steadily and well thus far. The opening address of the President, Sir William Thomson, F.R.S.—somewhat, perhaps, too long in delivery, and, as many hearers of it felt, somewhat diffuse—was nevertheless a powerful production. It indicated quantity, truly, rather than intensity, but that is only saying that it indicated the natural life of the speaker. It was, of course, well received. It dealt with various subjects: the early history of the Association, the establishment of physical laboratories and observatories, terrestrial magnetism, the kinetic theory of gases, spectrum analysis, the gravitational theory, and the nature of comets. The part of it most likely to interest our Medical readers is the following having reference to

THE ORIGIN OF LIFE ON THE PLANET.

The essence of science, as is well illustrated by astronomy and cosmical physics, consists in inferring antecedent conditions, and anticipating future evolutions, from phenomena which have actually come under observation. In biology the difficulties of successfully acting up to this ideal are prodigious. The earnest naturalists of the present day are, however, not appalled or paralysed by them, and are struggling boldly and laboriously to pass out of the mere "natural history stage" of their study, and bring zoology within the range of natural philosophy. A very ancient speculation, still clung to by many naturalists (so much so that I have a choice of modern terms to quote in expressing it), supposes that, under meteorological conditions very different from the present, dead matter may have run together or crystallised or fermented into "germs of life," or "organic cells," or "protoplasm." But science brings a vast mass of inductive evidence against this hypothesis of spontaneous generation, as you have heard from my predecessor in the presidential chair. Careful enough scrutiny has, in every case up to the present day, discovered life as antecedent to life. Dead matter cannot become living without coming under the influence of matter previously alive. This seems to me as sure a teaching of science as the law of gravitation. I utterly repudiate, as opposed to all philosophical uniformitarianism, the assumption of "different meteorological conditions"—that is to say, somewhat different vicissitudes of temperature, pressure, moisture, gaseous atmosphere—to produce or to permit that to take place by force or motion of dead matter alone, which is a direct contravention of what seems to us biological law. I am prepared for the answer, "Our code of biological law is an expression of our ignorance as well as of our knowledge." And I say yes: search for spontaneous generation out of inorganic materials; let anyone not satisfied with the purely negative testimony of which we have now so much, against it, throw himself into the inquiry. Such investigations as those of Pasteur, Pouchet, and Bastian are among the most interesting and momentous in the whole range of natural history, and their results, whether positive or negative, must richly reward the most careful and laborious experimenting. I confess to being deeply impressed by the evidence put before us by Professor Huxley, and I am ready to adopt, as an article of scientific faith, true through all space and through all time, that life proceeds from life, and from nothing but life. How, then, did life originate on the earth? Tracing the physical history of the earth backwards on strict dynamical principles, we are brought to a red-hot melted globe on which no life could exist. Hence, when the earth was first fit for life, there was no living thing on it. There were rocks solid and disintegrated, water, air all round, warmed and illuminated by a brilliant sun, ready to become a garden. Did grass and trees and flowers spring into existence, in all the fulness of ripe beauty, by a fiat of Creative Power? or did vegetation, growing up from seed sown, spread and multiply over the whole earth? Science is bound by the everlasting law of honour to face fearlessly every problem which can fairly be presented to it. If a probable solution, consistent with the ordinary course of nature, can be found, we must not invoke an abnormal act of Creative power. When a lava stream flows down the sides of Vesuvius or Etna it quickly cools and becomes solid; and after a few weeks or years it

teems with vegetable and animal life, which for it originated by the transport of seed and ova and by the migration of individual living creatures. When a volcanic island springs up from the sea, and after a few years is found clothed with vegetation, we do not hesitate to assume that seed has been wafted to it through the air, or floated to it on rafts. Is it not possible, and if possible, is it not probable, that the beginning of vegetable life on the earth is to be similarly explained? Every year thousands, probably millions, of fragments of solid matter fall upon the earth. Whence came these fragments? What is the previous history of any one of them? Was it created in the beginning of time an amorphous mass? This idea is so unacceptable that, tacitly or explicitly, all men discard it. It is often assumed that all, and it is certain that some, meteoric stones are fragments which had been broken off from greater masses and launched free into space. It is as sure that collisions must occur between great masses moving through space as it is that ships, steered without intelligence directed to prevent collision, could not cross and recross the Atlantic for thousands of years with immunity from collisions. When two great masses come into collision in space, it is certain that a large part of each is melted; but it seems, also, quite certain that in many cases a large quantity of *débris* must be shot forth in all directions, much of which may have experienced no greater violence than individual pieces of rock experience in a land-slip, or in blasting by gunpowder. Should the time when this earth comes into collision with another body—comparable in dimensions to itself—be when it is still clothed, as at present, with vegetation, many great and small fragments carrying seed and living plants and animals would undoubtedly be scattered through space. Hence, and because we all confidently believe that there are at present, and have been from time immemorial, many worlds of life besides our own, we must regard it as probable in the highest degree that there are countless seed-bearing meteoric stones moving about through space. If at the present instant no life existed upon this earth, one such stone falling upon it might, by what we blindly call *natural* causes, lead to its becoming covered with vegetation. I am fully conscious of the many scientific objections which may be urged against this hypothesis, but I believe them to be all answerable. I have already taxed your patience too severely to allow me to think of discussing any of them on the present occasion. The hypothesis that life originated on this earth through moss-grown fragments from the ruins of another world may seem wild and visionary; all I maintain is that it is not unscientific. From the earth stocked with such vegetation as it could receive meteorically, to the earth teeming with all the endless variety of plants and animals which now inhabit it, the step is prodigious; yet, according to the doctrine of continuity, most ably laid before the Association by a predecessor in this chair (Mr. Grove), all creatures now living on earth have proceeded by orderly evolution from some such origin.

THE SECTIONS.

On Thursday morning the sections met in their respective rooms for work, and, as all the sections were held in and within the walls of the University, every possible convenience was given to everybody to see and to hear. To the old Edinburgh men, scattered far and wide over the world, this picture of the science of the world, as it now is congregating in the class-rooms of the fine old building in which, with endless hopes and fears, they passed their academic life, will come back with singular force and sympathy.

I shall, as in former years, confine my notes to the work done in the sections devoted to Biology, Chemistry, and Economics, selecting from these such papers as bear chiefly on practical Medicine, and following the order, as nearly as is practicable, in which the papers were read.

BIOLOGY.—SECTION D.

This section is divided into three departments—Anatomy and Physiology, Zoology and Botany, Anthropology. The section altogether was presided over by Dr. Allen Thomson, Professor of Anatomy in the University of Glasgow(a); and the Presidents of Departments were:—For Anatomy and Physiology, Dr. Allen Thomson, Professor of Anatomy in the University of Glasgow; for Zoology and Botany, Dr. Wyville Thomson. Professor of Natural History in the University of Edinburgh; for Anthropology, Professor Turner, M.B., Professor of Anatomy in the University of Edinburgh.

(a) *Erratum.*—In our last impression, lines 3 and 4 from the bottom, *for words* "the newly-elected Professor of Natural History," *read* "the Professor of Anatomy in the University of Glasgow."

ADDRESS TO SECTION D.

By Professor Allen Thomson, M.D., F.R.S., President.

Professor Allen Thomson opened the Biological Section with an address which delighted an audience much too large to be comfortably accommodated. In the address the learned Professor paid a great compliment to Darwin. The following passages were received with much satisfaction:—

Unity of Biological Science.

The comparative anatomist must be an accomplished embryologist in the whole range of the animal kingdom, or in any single division of it which he professes to cultivate. The zoologist and the botanist must equally found their descriptions and systematic distinctions on morphological, histological, and embryological data. And thus the whole of these departments of biological science are so interwoven and united that the scientific investigation of no one can now be regarded as altogether separate from that of the others. It has been the work of the last forty years to bring that intimate connexion of the biological sciences more and more fully into prominent view, and to infuse its spirit into all scientific investigations.

Cultivation of Biology in Schools.

There is another topic to which I can refer with pleasure as connected with the cultivation of biological knowledge in this country, and that is the introduction of instruction in natural science into the system of education of our schools. It is so obvious, that whatever knowledge, easily acquired, and even though of the most elementary kind, tends to enlarge the range of observation and thought, must have some effect in removing its recipients from grosser influences, and may even give information which may prove useful in social economy and in the occupations of labour. Nor need I point out how much more extended the advantages of such instruction may prove if introduced into the system of our secondary schools, and more freely combined than heretofore with the too exclusively literary and philosophical study which has so long prevailed in the approved British education. It is obvious, too, that while this more immediately useful or beneficial effect on the common mind may be produced by the diffusion of natural knowledge among the people, biological science will share in the gain accruing to all branches of natural science, by the greater favour which will be accorded to its cultivators, and the increased freedom from prejudice with which their statements are received and considered by learned as well as by unscientific persons. (Applause.)

The Spiritualistic Phantasy.

I cannot conclude these observations without adverting to one aspect in which it might be thought that biological science has taken a retrograde rather than an advanced position. In this, I do not mean to refer to the special cultivators of biology in its true sense, but to the fact that there appears to have taken place of late a considerable increase in the number of persons who believe, or who imagine that they believe, in the class of phenomena which are now called spiritual, but which have been long known—since the exhibitions of Mesmer, and, indeed, long before his time—under the most varied forms, as liable to occur in persons of an imaginative turn of mind and peculiar nervous susceptibility. It is still more to be deplored that many persons devote a large share of their time to the practice—for it does not deserve the name of study or investigation—of the alleged phenomena, and that a few men of acknowledged reputation in some departments of science have lent their names and surrendered their judgment to the countenance and attempted authentication of the foolish dreams of the practitioners of spiritualism and similar chimerical hypotheses. The natural tendency to a belief in the marvellous is sufficient to explain the ready acceptance of such views by the ignorant; and it is not improbable that a higher species of similar credulity may frequently act with persons of greater cultivation, if their scientific information has been of a partial kind. It must be admitted, further, that extremely curious and rare, and to those who are not acquainted with nervous phenomena, apparently marvellous phenomena present themselves in peculiar states of the nervous system, some of which states may be induced through the mind, and may be made more and more liable to recur, and greatly exaggerated by frequent repetition. But making the fullest allowance for all these conditions, it is still surprising that persons otherwise appearing to be within the bounds of sanity should entertain a confirmed belief in the possibility of phenomena, which, while they are at variance with the best established physical laws, have never been brought under proof by the evidence of the senses, and are opposed to the dictates of sound judgment. It is so far satisfactory in the interests of true biological

science that no man of note can be named from the long list of thoroughly well-informed anatomists and physiologists who has not treated the belief in the separate existence of powers of animal magnetism and spiritualism as wild speculations, devoid of all foundation in the carefully tested observation of facts. It has been the habit of the votaries of the systems to which I have referred to assert that scientific men have neglected or declined to investigate the phenomena with attention and candour; but nothing can be farther from the truth than this statement. Not to mention the admirable reports of the early French academicians, giving the account of the negative result of an examination of the earlier mesmeric phenomena by men in every way qualified to pronounce judgment on their nature, I am aware that from time to time men of eminence, and fully competent, by their knowledge of biological phenomena, and their skill and accuracy in conducting scientific investigation, have made the most patient and careful examination of the evidence placed before them by the professed believers and practitioners of so-called magnetic, phreno-magnetic, electro-biological, and spiritualistic phenomena; and the result has been uniformly the same in all cases when they were permitted to secure conditions by which the reality of the phenomena or the justice of their interpretation could be tested—viz., either that the experiments signally failed to educe the results professed, or that the experimenters were detected in the most shameless and determined impostures. I have myself been duly convinced of this by repeated examinations. But, were any guarantee required for the care, soundness, and efficiency of the judgment of men of science on these phenomena and views, I have only to mention, in the first place, the revered name of Faraday, and, in the next, that of my life-long friend, Dr. Sharpey, whose ability and candour none will dispute—(applause)—and who, I am happy to think, is here among us, ready, from his past experience of such exhibitions, to bear his weighty testimony against all cases of *levitation*, or the like, which may be the last wonder of the day among the mesmeric or spiritual pseudo-physiologists. (Applause.) The phenomena to which I have at present referred, be they false or real, are in great part dependent upon a natural principle of the human mind, placed, as it would appear, in dangerous alliance with certain tendencies of the nervous system. They ought not to be worked upon without the greatest caution, and they can only be fully understood by the accomplished physiologist, who is also conversant with psychology. The experience of the last hundred years tends to show that there will always exist a certain number of minds prone to adopt a belief in the marvellous and striking in preference to that which is easily understood and patent to the senses; but it may be confidently expected that the diffusion of a fuller and more accurate knowledge of vital phenomena among the non-scientific classes of the community may lead to a juster appreciation of the phenomena in question, and a reduction of the number among them who are believers in the impossible. As for men of science who persist in submitting to such strange perversion of judgment, we can only hope that the example of their less-instructed fellow-countrymen may lead them to allow themselves to be guided more directly by the principles of common sense than by the erratic tendencies of a too fervid imagination. (Loud and prolonged applause.)

Report on the Physiological Action of Organic Chemical Compounds.

By Dr. Richardson, F.R.S.

Dr. Richardson read the first report in the Department of Anatomy and Physiology. He commenced with *Chloral Hydrate*, treating of four points in relation to it:—(*a*) The question of a dangerous and of a fatal dose. (*b*) The quantity of hydrate that can safely be given in limited periods of time. (*c*) The treatment to be adopted in cases of poisoning by the hydrate. (*d*) The chronic evils from indulgence in the substance as a narcotic luxury. Respecting the treatment of persons under poisonous doses of chloral the author discussed three lines of treatment as all important—viz., sustainment of the animal temperature in a warm air; sustainment of the body by the administration of food; and artificial respiration. On the subject of habitual use of the hydrate he spoke very strongly, urging that to the vices of alcoholism and opium-eating there was now being added that of using chloral hydrate as a narcotic. He described the dangers of this growing practice, and, in terms which were received with the most earnest demonstrations of acquiescence on the part of the audience, protested that chloral hydrate was purely a medicine, and that when it was employed in the absence of Medical science and experience it ceased to be a boon, and became a curse to mankind.

Anhydrous Chloral was the next substance described. This is the fluid from which chloral hydrate is made by the addition of water. It is a fluid yielding a very irritating vapour, but it can be applied freely to the skin, where, without pain, it acts rapidly, taking up water and becoming transformed as it is absorbed into chloral hydrate. It causes, nevertheless, some loss of structure at the part to which it is applied, and some after-narcotism from the absorption of the hydrate. It will prove of great service in neuralgia, in the local treatment of cancer, and in other external forms of disease. *Metachloral* was next introduced. It is a fine white powdery substance, insoluble in water, and made by the action of sulphuric acid on anhydrous chloral. Administered internally it is a narcotic like chloral hydrate, but it is slower in its action and less active. Some new researches on *Nitrite of Amyl* were next adduced, in which the action of that substance on the circulation of the lungs was defined. It was shown that the vascular paralysis caused by the nitrite extends to the vessels of the pulmonary tract, and that the extremest congestions and hæmorrhages can be induced by it in the inferior animals, representing states closely resembling some conditions running, at least, side by side with tuberculous deposit. It was also explained that in some animals affected with scaly disease of the skin and loss of fur the continued inhalation of the nitrite vapour induced a free capillary circulation and effected a rapid cure. *Nitrate of Ethyl* and *Nitrate of Amyl* were taken up in continuation, and a comparison was made between the action they produced and the action of the respective nitrites, the differences being due to the additional equivalent of oxygen in the nitrates. The action of *Sulpho-urea*, a new organic compound, in which sulphur represents the oxygen of common urea, was brought under notice after the discussion of the nitrates; and, finally, hydramyle and chlor-hydramyle were considered at length in respect to their uses and applications as rapidly acting narcotic vapours. In a second part of the report Dr. Richardson treated on three topics: The condition of the minute circulation under the action of narcotics; the relation of convulsive action to the contraction of the minute bloodvessels; and the effect of condensation of the water of the tissues and its fatal accumulation on the skin and the mucous and serous surfaces—the bronchial surfaces especially—during states of the body when the animal temperature is undergoing decrease.

A most interesting discussion followed, in which Dr. Donkin, Dr. Marcet, Dr. Brunton, and Dr. Sharpey took part.

Report on Physiological Experimentation.

Dr. Arthur Gamgee read the following statement:—A committee consisting of ten individuals having been appointed at the last meeting of the British Association, held at Liverpool, to consider the subject of physiological experimentation, in accordance with a resolution of the General Committee, the following report was drawn up and signed by seven members of the Committee:—"1. No experiment which can be performed under the influence of an anæsthetic ought to be done without it. 2. No painful experiment is justifiable for the mere purpose of illustrating a law or fact already demonstrated. In other words, experimentation without the employment of anæsthetics is not a fitting exhibition for teaching purposes. 3. Whenever, for the investigation of new truth, it is necessary to make a painful experiment, every effort should be made to insure success, in order that the suffering inflicted may not be wasted. For this reason no painful experiment ought to be performed by an unskilled person with insufficient instruments and assistance, or in places not suitable to the purpose—that is to say, anywhere except in physiological and pathological laboratories under proper regulations. 4. In the scientific preparation for veterinary practice, operations ought not to be performed upon living animals for the mere purpose of obtaining greater operative dexterity.—Signed by M. A. Thomson, Oxford; John H. Balfour and Arthur Gamgee, Edinburgh; G. M. Humphrey, Cambridge; William Flower, Royal College of Surgeons, London; J. B. Sanderson, London; George Rolleston, Secretary, Oxford."

On the Pressure of the Atmosphere as an Auxiliary Force in carrying on the Circulation of the Blood.

By Dr. A. Buchanan.

Dr. Buchanan, who spoke from brief notes, explained his views respecting the circulation of the blood, and the effect of atmospheric pressure as an auxiliary to the circulation. Dr. A. Wilson, in 1774, first raised the question of the "suction power of the right heart, but it was not until Carson, who about the year 1816, if we remember correctly, wrote in support and elaboration of Wilson's views, that the subject received full consideration. Carson was of opinion that the

contractile left heart asserted sufficient power to fill the arteries and capillaries by its stroke; but he held that the left stroke was not sufficient to fill the right side of the heart. The filling of the right side was due, he thought, mainly to the action of the lungs. The arguments of Carson were strongly opposed by Arnott, and Dr. Buchanan's essay was intended once more to revive the controversy in favour of Carson.

On the Nutrition of the Muscular and Pulmonary Tissue in Health and in Phthisis, with Remarks on the Colloid Condition of Matter.

By Dr. Marcet, F.R.S.

Dr. Marcet, in this communication, compared the nutrition of lung and of muscle in the normal condition of the subject, and then passed to consider the changes which occur in both sets of organs during phthisis pulmonalis, when the muscles are undergoing rapid wasting. He proceeded afterwards to treat on the colloidal condition of certain of the structures of the body, and specially of the blood, including in his remarks a description of the colloid condition of matter generally. It would be difficult to condense into a few lines of abstract Dr. Marcet's interesting contribution, the whole of which we hope to see in full.

On the Placentation of the Cetacea.

By Professor Turner, M.B.

The learned and industrious Professor of Anatomy of the University of Edinburgh must surely have been gratified by the audience that attended his demonstration on the "Placentation of the Cetacea," on Friday morning. In return the audience had occasion to be grateful for an admirable paper. Dr. Turner first glanced at the labours of preceding anatomists, and then passed to describe his own dissections and researches made on a whale that had been sent him from Kirkwall during the past year. The paper was illustrated by a series of injected preparations, which for beauty, not less than instruction, could not be surpassed.

A discussion followed, in which Professors Sharpey, Huxley, Carpenter, Priestley, and Dr. Donkin took part.

On the Ciliated Condition of the Inner Layer of the Blastodum in the Ova of Birds, and in the Omphalo-mesenteric Vessels.

By B. T. Lowne.

A short, concise, descriptive paper. Professors Sharpey, Carpenter, Allen Thomson, and Dr. Lankester joined in the discussion.

On some Rudimentary Structures recently met with in the Dissection of the large Fin-Whale.

By Professor Struthers, M.D.

The whale dissected and now in part described by Professor Struthers measured sixty-eight feet in length, and was found in the North Sea, some thirty or forty miles off Aberdeen. On its being towed into Peterhead, he proceeded to examine it. The colour was white on the belly, dark on the sides, and black on the back. In examining the bones and muscles, he found a sixteenth pair of ribs. The position of these was a remarkable one for a rib to occupy in a mammalian animal, suggesting a sternal rather than a vertebral rib, and somewhat resembling the abnormal ribs of the crocodile. The muscles he spoke of as rudimentary structures, whose function was not distinct but low. As abnormal or unusual rudimentary structures could be understood only through variability and inheritance, so normal rudimentary structures were to be explained, not by the fictions of final cause, or of so-called type, but by the law of inheritance and the influence of function. The one, as part of a great scheme of evolution, had brought them into existence, and the other, by fitness and use, had preserved them from becoming extinct.

Professor Turner, Professor Macalister, and Dr. Murie took part in the debate, the latter expressing his satisfaction at finding the observations he had made in 1867 confirmed by the researches of Professor Struthers.

On the Caudal and Abdominal Muscles of the Cryptobranch.

By Professor Humphry, F.R.S.

Professor Humphry read a paper on the Caudal and Abdominal Muscles of the Cryptobranch. He gave a general description of them, and drew the following inferences:—First, that the abdominal muscles are an extension and expansion of the caudal muscles. Secondly, that the several abdominal muscles are derived from one simple muscular sheet, which is segmented into planes by the difference in direction of the muscular fibres at different depths. Thirdly, that the fibres of the external and internal oblique muscles are continued into those of the rectus, a gradual alteration in their direction from an oblique to a straight course being found as they approach the middle line. Fourthly, that the ilium and the ribs are ossifications in the course of the intermuscular septa, and chiefly in those parts of the thickness of the septa which correspond with the plane of the internal oblique.

On the Uses of the Uvula.

By Sir Duncan Gibb.

Anatomists describe the action of the uvular muscle as an elevator which shortens the uvula. It is, however, a sentinel to the fauces, especially in the act of deglutition; for when any substance comes into contact with it, it excites the action of all the neighbouring muscles until it is got rid of. It possesses a function of not less importance, in holding the soft palate tense and firm in the medial line against the wall of the pharynx during the act of deglutition itself, and thus prevents the passage upwards of fluid or solid substances behind the nose. This was supported by experiments upon a person who had lost the bones of the nose, permitting of a view of the action of the soft palate from its nasal aspect during deglutition with or without food. Under either circumstance, a double arch was seen in the form of two convex swellings, held in a state of firm tension by the action of the uvula passing down the centre of the soft palate, with its end resting flat against the wall of the pharynx. The tension ceased the moment that the constrictors of the pharynx had fully exerted their influence over the substances swallowed. Whilst the uvula has its special uses in the act of deglutition, it exerts a not less decisive influence upon the voice when uttered in a very loud tone, or in singing the higher registers, in both sexes. Then its character as a levator or shortener is exerted. If this power is impaired by removal of the muscular (not the membranous) end, then the singing powers are damaged. The elongation of the uvula and its effects formed a subject of observation, a distinction being made between its elongated membranous end and the true muscular end. Speech, the author said, was modulated by the soft palate and uvula, and the motor power of the latter is unquestionably exerted in pronouncing the letters K, Q, and X, with their associations, more especially the gutturals of the various languages.

On certain Abnormalities of the Larynx.

By Sir Duncan Gibb.

In this paper the author described a rare instance of absence of both arytenoid cartilages in a girl of eighteen. Likewise, one in which the epiglottis possessed the shape of a trefoil leaf, and two others in boys of fissure of the same cartilage.

Report on the Heat of the Blood during Arterialisation.

By Dr. Arthur Gamgee, F.R.S.E.

Dr. Gamgee's report was one of the reports written specially for the Association. It opened with a review of what had been done by previous observers, and expressed the opinion that the labours of Dr. John Davy were probably valueless. He then described the results of his own research, and stated that the specific heat of blood was absolutely the same as that of water. Experiments made by himself, and several of them in conjunction with Professor Tait, were recorded. The earlier experiments he made were unsatisfactory, and no positive proof was obtained of the heating of blood when it absorbs oxygen, but this year he had worked with improved apparatus. He described the apparatus he had devised, and proceeded to state the results at which he had arrived. From his experiments on the heat of arterialisation of perfectly reduced blood, he has arrived at the conclusion that the mean rise in temperature during the absorption and combination of oxygen with the blood-colouring matter of perfectly reduced blood amounts to 0·097 of a degree Centigrade. The maximum heating found was 0·111° C., and the minimum 0·083° C. The author then made observations on the total amount of heat units representing approximately the heat due to the arterialisation of the whole blood passing through the lungs in a day. The amount of blood passing through the lungs in one day amounts to more than ten tons, and it was estimated that the heat from the arterialisation of the whole blood amounted to 527 heat units (the heat unit taken being the kilogramme of water heated 1° C.), an amount more than sufficient to heat the whole quantity of air inspired, and to saturate it with moisture at the temperature of the body.

In the discussion, in which Professor Rutherford, Mr. Ray Lankester, Professor Williams, and Professor Allen Thomson joined, Professor Rutherford expressed his deep sense of the great value of the report by Dr. Gamgee, while Dr. Allen Thomson defended the labours of Dr. John Davy, and regretted they

had been spoken of in the manner he had heard. He suggested that the observations made on Dr. Davy should be changed before the report was printed, to which suggestion the author gave his assent.

An Experimental Inquiry into some of the Results of Inoculation in the Inferior Animals.

By Dr. John Clivene.

This paper was a history of a series of attempts to inoculate cancer into rabbits from the human subject. The author's conclusions may be summarised as follows:—1. Cancer cannot be produced in rabbits from the human subject. 2. Cysts, containing cheesy matter, arise at the points of inoculation. 3. The cysts do not differ from the local appearances which arise after the application of any irritant to the subcutaneous tissue of the rabbit.

In the discussion, Professor Williams said he had had experience of inoculation both in rabbits and birds. The birds he had experimented upon (fifty or sixty) had all died, the cause of their deaths being the inoculation; but he did not find it so with rabbits. He thought that in birds inoculation produced a special or acute infection.

On the Dietary in the English and Welsh Workhouses.

By Dr. Edward Smith, F.R.S.

The author first observed on the fact that schemes of dietary are agreed upon by the combined action of the local authorities, the guardians of the poor, and the central authority; and showed that, as the dietary should correspond with that of the labouring classes, it must vary in different localities, and be based upon knowledge. The dietary is thus prepared by the guardians and examined and sanctioned by the Poor-law Board. He explained the steps which have recently been taken by the latter to give advice to the former and to establish greatly improved dietaries. This was initiated by the Hon. C. P. Villiers, who first made the appointment of Medical Officer to the Board, and carried into effect by the Earl of Devon and his successors as Presidents of the Poor-law Board. It is now laid down by that authority that the foods to be selected shall be those in ordinary use in the several localities, and that the kind and quantity of food shall be adapted to the wants of the several classes of inmates. The chief differences of food are found in the quantity of meat supplied and the mode in which it is served, and the use of oatmeal, cheese, milk, and puddings. In many of these points the dietaries in Dorset and Westmoreland were contrasted. Then he showed, from inquiries made by him for the Government some years ago, that the quantities of food obtained by the working classes per adult weekly were, in Dorset—bread stuffs, 13 lbs.; sugar, $3\frac{1}{4}$ oz.; fats, $4\frac{1}{4}$ oz.; meat, $7\frac{1}{4}$ oz.; milk, 12 oz.; and cheese, $12\frac{1}{2}$ oz.; while in Westmoreland the quantities were—bread stuffs, $12\frac{1}{2}$ lbs.; sugar, $10\frac{3}{4}$ oz.; fats, $6\frac{3}{4}$ oz.; meat, $21\frac{1}{2}$ oz.; milk, 120 oz.; and cheese, 2 oz. He then showed what is the typical diet of children at various ages, and to able-bodied and aged adults, and the quantity of the several foods in workhouses. Children under 2 years of age get milk, bread, and rice pudding; from 2 to 5 years, pudding on three days, meat and potatoes on three days, and soup or other food on one day. From 5 to 9 years there is one other day of meat and potatoes, and commonly one of soup. From 9 to 16, that of adults. For able-bodied, bread and gruel at breakfast and supper, varied by broth or cheese in the several localities; at dinner, meat in some form on four days, and pudding or cheese on three days. For aged, tea and bread-and-butter at breakfast and supper; at dinner, meat in some form five days, with pudding or cheese or other food on two days. The standard of measurement of the sufficiency of this food is that which he gave to the Government when advising on the Lancashire cotton famine—viz., 4300 grains of carbon and 200 grains of nitrogen daily; and the model dietary which he had framed for the midland counties supplied more than this to the adults. He then pointed out that, whilst the above-mentioned quantity of food supported the health and strength of the inmates, except perhaps as regarded children, there are still many workhouses where the dietary is very unsatisfactory. In some, gruel and bread are given at breakfast and supper to nearly all the inmates, or where meat in a separate form is not given, or where a very small quantity, as 2 oz. or 3 oz. of raw meat two or three times a week, or where bread and cheese alone are given to some classes in eighteen out of twenty-one meals weekly, or where soup containing no meat is given thrice a week, or where meat when given is given only when cold; whilst, on the other hand, there are workhouses in the manufacturing districts where meat and bread are given in great excess. He was of opinion that the time may arrive when the Government will prepare several schemes of dietary for different parts of the country; but, in the meantime, improvements are now in rapid progress. He exhibited tables showing the quantities of food taken by the working classes, and the dietary which he had recommended for use in workhouses in the midland counties; and he also read the details of the dietary which Professor Christison had proposed for the Edinburgh charity workhouse in 1854, supplying oatmeal and buttermilk at breakfast and supper, and meat soup with bread at dinner.

Dr. Lankester considered this paper was of great practical importance to the country at large. Wealthy John Bull fed himself well, but he forgot to do so with his paupers and prisoners, while it was of first importance to the nation that they should be well fed. The dietaries that had been reformed in England were the prison dietaries. When he was in Ireland, he pointed out that the prison diet was far too low, the consequence of which was that prisoners came out in a weak state, unable to work, and with nothing to do but steal. In many parts of England the dietaries of the workhouse were infinitely worse than prison dietaries. The strength of pauper children specially ought to be kept up (and he was glad to learn that, in many instances, their food had been increased), so as to enable them to grow up strong, useful, honest men and women. English people generally gave sympathy to a prisoner, but a pauper got none, the wish being that they should be starved out. The whole question lay in the great difficulty the Poor-law Board experienced in moving local boards, and it was a matter for congratulation that the Government had selected Dr. Smith to look after these important national affairs.

On Restoration of the Tail in Protopterus Annecteus.

By Professor Traquair.

Two specimens of the protopterus annecteus were described, in which the external configuration and internal structure rendered it evident that a considerable portion of the tail had been broken off, and that in the one case a less, and in the other a greater, amount of restoration had taken place. Anatomists were familiar with the restoration of lost tails in lizards, and in the long-tailed amphibia, also with the renewal of portions of the fins in fishes; but no case of the restoration of the caudal axis in adult fish had been as yet recorded. In the first specimen shown, which measured $8\frac{1}{2}$ inches in length, the body was truncated abruptly $3\frac{3}{4}$ inches behind the origin of the ventral fins. This truncated termination of the body was fringed by a delicate membrane projecting half an inch backwards in the middle, and containing a pointed central axis. Professor Traquair gave a detailed account of what he observed in dissecting the fish, and stated that the restored portion of the tail measured one-fifth of an inch in length, and showed not only a reproduction of the notochord, but also of the neural and hæmal arches, spines, and fin-supports, these elements remaining, however, entirely cartilaginous, and being much more irregularly disposed than in the normal tail. Both externally and internally, the line of demarcation between the old and new textures was very distinctly seen.

On the Morbid Appearances Noticed in the Brains of the Insane.

By Dr. J. Batty Tuke and Professor Rutherford.

Dr. Tuke pointed out the importance of localising brain-function, and that the means to this end at the disposal of the physiologist were nearly exhausted. Comparative anatomy had done its work; and experimentation, although it had done much to demonstrate certain leading facts of importance, had left much which was doubtful, and more that it had not attempted to explain. Moreover, sources of fallacy existed in this method of inquiry from the difficulty which existed of localising artificial injuries, and of reaching deep-seated portions of the brain. Disease, however, injured in a finer and more delicate manner than the knife, and it was held that much might be elicited regarding the functions of the brain by observing the parts of the organs implicated in disease and the perversions of the nervous system which are associated with them. It being generally acknowledged that the intellectual powers are manifested through the grey matter of the cerebrum, and as in insanity these faculties were impaired, exaggerated, or perverted, the authors asserted a belief that, by examining the brains of the insane a hope existed of discovering a road for arriving at a solution of the functional difficulty. The time had passed when the terms mental disease, insanity, or madness, conveyed to the minds of Physicians the idea that the psyche, the mind or its faculties, were the entities which were the subject of disease. By a process of ratiocination rather than of demonstration the pathologist had arrived at the conclusion that abnormal

physical manifestations are dependent upon primary or secondary morbid changes in the nerve tissue; that insanity is a symptom of disease, not a disease itself, and that in the brain the *materies morbi* must be looked for. Six years ago the authors commenced a systematic microscopic examination of the brains of the insane, and with this most important result: that in every single instance a marked departure from healthy structure was observed. The process by which the brain-matter was made fit for the microscope was related, also a list of twelve different parts of that organ which had in a majority of cases been examined. The morbid appearances may be classified under the following heads:—Changes: 1st, in the neuroganglia; 2nd, in the nerve cells; 3rd, in the nerve fibre; 4th, in the bloodvessels; 5th, granulation in surface of cerebral convolutions, etc.; and 6th, amyloid and colloid bodies. After describing the various forms of disease, which were illustrated by diagrams and microscopic sections, the paper concluded with the following statements:—We are not prepared to designate the individual parts of the brain specially affected in different forms of insanity; but we may say generally, that the corpora striata are the portions most frequently found affected, and that the cerebellum is the organ least frequently subject to disease. Further, that the white matter is much more liable to evident structural morbid change than the cortical substance in comparatively recent cases, and that where the intellect has been in abeyance for prolonged periods, the structure of the grey matter of the cerebral convolutions is difficult of demonstration; the layers are found indistinct, as the cells are few in number, and generally small in size. We do not wish it to be thought that we have found in cases of insanity any changes in the cerebrum which may not be found in other parts of the central nervous system in diseases not involving the intellect. The seat of these morbid conditions is the great point to be considered in the different cases; and in this direction we propose immediately to direct our attention by analysing the series of microscopic sections at our command, and by carefully comparing the physical signs observed during life with pathological conditions. The great conclusion to which our researches have as yet led us is, that in the fifty-three cases of chronic insanity which we have examined, we have found distinct structural changes in the brain of each. This in itself is a fact having a most important bearing on the physiology of the brain, and one which, if followed up, may be reasonably expected to dissipate much of the mystery which hangs over the functions of its various parts. Our object in bringing this paper before the Association is the hope of enlisting others in an inquiry which is so vast that we feel a host of investigators will be needed to prosecute it.

Professor Sanders spoke most favourably of the proposed system of inquiry, and alluded to the preliminary researches of Drs. J. Batty Tuke and Rutherford in complimentary terms.

Dr. Pye-Smith suggested the importance of a parallel series of investigations on nervous diseases not complicated with insanity.

The President, Dr. Allen Thomson, said that the paper was one of the most important and interesting which had been laid before the section; it coincided with the views he had all along theoretically maintained.

BRITISH MEDICAL ASSOCIATION.

VISIT TO PLYMOUTH.

First Part—Tuesday and Wednesday.

(*From our Special Correspondent.*)

August, 1871.

The sun is shining as it has not shone for the past six months, and Plymouth (it being understood that Devonport and Stonehouse are included in the comprehensive term) is looking its brightest and best. If, therefore, the members of the British Medical Association do not enjoy all the pleasures of the neighbourhood, both in and out of town, it will not be the fault of the weather.

All arrangements for the comfort of the visitors appear to be most complete, and the local secretary, Dr. Littleton, has been indefatigable in his endeavours to render smooth all rugged places, and to place every facility for the enjoyment of science and scenery in their way.

A reception-room is provided at the Eye Infirmary, which is quite contiguous to the railway station, where names and addresses of members are at once put down, a ticket of admission to meetings and sections, together with a neatly compiled and compact programme, containing an excellent map of "the three towns," is placed in the hands of each visitor, and where all required information can be obtained from the attendants. On Tuesday afternoon I visited the annual museum; but finding the room still in some disorder, and most of the cases still unpacked, a notice of its contents must be postponed for the present.

After dinner there was a general move to the Assembly Room at the Royal Hotel, Plymouth, where the first general meeting was held. Here between 200 and 300 persons were assembled; amongst whom were the Earl of Mount Edgcumbe, the Mayors of Plymouth and Devonport, and many members of the Plymouth Town Council.

The first business was the presentation of an address from the Corporation of Plymouth, in which the members of the Association were cordially welcomed, and the best wishes of the Mayor and Town Council were given for the success of the meeting.

Dr. Charlton briefly and forcibly replied to the address, remarking that this was the first occasion on which such an honour had been paid to the Association by any town which had been visited by it; for while at Newcastle the Corporation had welcomed the Association to that town, no address had been presented. He lamented the fact that the past year had been one rather of stagnation than of progress in regard to Medical reform, but rejoiced somewhat in believing that the delay had produced the conclusion, that no measure of Medical reform would be satisfactory which did not embrace full representation of the whole Profession in the Medical Council. He then introduced Mr. Whipple, the President-elect, eulogistic terms.

Mr. Whipple, who was but indistinctly heard, owing to the deficient acoustic properties of the room, remarked that, from the difficulty of choosing one out of so many branches of science which presented themselves to the mind's eye, he had decided on avoiding science, and on taking Plymouth as the subject of his address, considering that, if he adopted such a course, the minds of those who had hard work to perform in the various sections would proceed thereto with greater vigour if they were not impaired by any homœopathic treatment of his own. He then gave a rapid yet comprehensive sketch of the history of Plymouth, and called attention to the fact, as a matter of Medical interest, that the pavilion system of constructing Hospitals took its origin from the Naval Hospital at Stonehouse, which was built more than one hundred years ago. Mr. Whipple concluded by saying that Plymouth would doubtless derive lasting benefit from the visit of the Association, and by welcoming most heartily all who were present.

Dr. Sibson proposed a vote of thanks to Dr. Charlton, the late President. The motion was seconded by Dr. Radcliffe Hall, and carried with acclamation.

Dr. Charlton, in returning thanks, said he hoped ere long to see carried a substantial and valuable measure of Medical reform.

The Hastings Medal was then presented to Dr. Fothergill, of Leeds, by the President, who spoke in choice terms of the services rendered by the recipient to Medical science; and Dr. Fothergill responded in a suitable manner.

Mr. Watkin Williams read the report of the Council, which stated that the number of members had increased by 202 during the past year. The Council regretted the want of activity in the matter of legislation, but hoped a measure of Medical reform would become law next session. The efficient management of the branches was praised, thanks being given to the officers, and it was mentioned that a new branch had been opened in South Wales. Referring to the *Journal*, the Council stated that an inquiry by a committee had been instituted, which had arrived at the conclusion that there were grave defects in the organisation of the Association. They recommended that the general secretary should reside in London, and give personal attention to, and be responsible for, the finance and management of the *Journal* office. A deficit was shown in the accounts, but that would be wiped off in the present year. The Council regretted the withdrawal of the "five members of Council," but hoped they would yet return. As there had been only one essay forwarded for the Hastings Medal, the adjudicators recommended that it should be withheld.

Mr. Husband, President of the Council, moved the adoption

of the report in a long and very impressive speech, and Mr. Heckstall Smith seconded the motion.

Dr. J. G. Davy attacked the Council and its report very vigorously, and suggested a modification of it.

Dr. Sibson and Mr. Clayton defended the Council.

Mr. Gamgee would vote for the rejection of the report, for he considered that there was sufficient work for a Professional secretary, as well as for a business manager in London.

The motion for the adoption of the report was then put, and carried by a large majority, only five voting against it.

The meeting, which was on the whole rather stormy, considerable warmth being manifested by several of the speakers, was adjourned at eleven o'clock.

On Wednesday morning a public breakfast was held at the Royal Hotel, Devonport, after which some of the party visited the Dockyard and the large iron-clads in the harbour, while others inspected the Royal Albert Hospital, until the time arrived for the meeting at the Devonport Townhall. Notwithstanding the extreme heat, at eleven o'clock the spacious and well-appointed hall was well filled.

The proceedings were commenced by the Mayor, Mr. May, giving a few words of welcome to the Association, after which Mr. Woollcombe, the Town Clerk, read a congratulatory address from the Corporation of Devonport.

Mr. Whipple responded in suitable terms.

Dr. Chadwick, of Leeds, proposed that the next meeting should be held at Birmingham, and that Mr. Alfred Baker be the President-elect.

Dr. Houghton seconded the motion in an eloquent speech, and it was carried unanimously; after which Mr. Baker accepted the office.

Mr. Husband then stated that the wish of the Council was, that Mr. Watkin Williams should continue as secretary until the end of the year, the sum of £200 being presented to him, instead of the usual salary, for that period; he therefore proposed a resolution to that effect, accompanying it with a vote of thanks to Mr. Williams, for his unwearied labours in conducting the affairs of the Association.

Dr. Falconer, of Bath, seconded the motion, and after a few remarks from Mr. Gamgee and Dr. Stewart it was unanimously carried.

Dr. George Johnson then delivered the Address in Medicine. The subject which he chose was "Nature and Art in the Cure of Disease." He adduced arguments drawn from pathological changes in support of the doctrine that such processes are frequently curative. With regard to the province of art, he enlarged on the value of eliminative treatment.

After the address, the meeting adjourned.

THE

MEDICO-LEGAL ASPECT OF INSANITY.

THE NATURE OF THE CAPACITY REQUIRED BY LAW FOR MAKING A WILL, AND FOR ENTERING INTO OTHER CIVIL CONTRACTS.

As it not unfrequently happens that Medical men, like clergymen, are suddenly called upon not only to attest but even to draw up the will of a patient whose state will not admit of delay, and as Medical men frequently are required to depose to the state of mind of a deceased patient, the validity of whose will is disputed, it may be useful to inquire what state of mind is deemed by law to incapacitate a person from thus disposing of his property.

It is of course superfluous to say that idiots, lunaties, and persons of unsound mind are incapable, both by common and by statute law, of making wills. The single exception to this rule is that of a lunatic during a lucid interval. But yet a person may be incapable (because incompetent) of making a will, though neither an idiot, lunatic, nor, in the words of the statute of wills (34 and 35 Hen. VIII., c. 5, s. 14), *de non sane memory*, in the ordinary acceptation of that phrase. The law requires a competency of mind for this purpose, and "that competency," said Sir John Nicholl in a case reported in 2 Haggard's Ecclesiastical Reports, p. 122, "must be judged of from a consideration of all the circumstances of the case." Sir E. Coke says: "It is not sufficient that the testator have a memory, when he makes his will, to answer familiar and usual questions, but he ought to have a disposing memory so that he is able to make a disposition of his lands with understanding and reason; and that is such a memory as the law calls sane and perfect." And in Combe's case (Moore's Rep., p. 759), all the judges decided that "the sane memory for the making a will is not at all times when the party can answer to anything with sense, but he ought to have judgment to discern and to be of perfect memory, otherwise the will is void."

The question, in fact, in these cases is whether the testator was of sound disposing mind when he made his will, having such a degree of recollection about him as would enable him to know what his property was, and who those persons were who then were the objects of his bounty (Greenwood *v.* Greenwood, 3 Court App.); and, as Sir J. Nicholl said in the case before mentioned, "this must be judged of from a consideration of all the circumstances of the case." A further case has decided that "a man might not be insane, and yet not equal to the important act of disposing of his property by will" (Mountain *v.* Bennett, 1 Cox, pp. 353—357).

But, on the other hand, an idiot is incapable of making a will, even though reasonable and wise in itself, for the presumption of law is against the validity of all and every the legal acts of an idiot, yet if a rational will proceeded from a reputed idiot, it would be strong evidence to prove that he was not an idiot in fact (Swinh. on Wills. by Powell, vol. i. p. 128). Of course the imbecility of old age, known as second childhood, incapacitates, as also drunkenness at the time, or that insanity which is the result of excessive intoxication. Yet a man may be excited by liquor, he may be under the influence of stimulants even prescribed medicinally; but in order to avoid a will made by him under such circumstances, it must be shown that he was so excited, or conducted himself so extravagantly, as to be at that moment legally disqualified from giving effect to his own act (3 Haggard's Eccles., Rep. 608; see also Cory *v.* Cory, 1 Vesey sen., 19).

It is well known that upon this point of incapacity evidence of the most contradictory kind frequently occurs; but be it observed that a large proportion of such evidence is evidence of mere opinion. In the next place, there is no fixed standard by which each witness forms his opinion of incapacity, and no two witnesses, possibly, having seen the party at precisely the same time. The true criterion by which the capacity of a testator is to be examined, especially where there is such contradictory evidence, can only be drawn from his acts at the time. The evidence, on this point, of his Medical attendant, at the time of the execution of the will, is worth all the mere opinions of witnesses who may have seen the testator at different times and under different circumstances.

It should be borne in mind that a person who signs his name as witness to a will, by this very act, testifies the sanity of the testator. Should such witness attempt afterwards to prove that the testator did not know what he was doing on the occasion, he would, in the language of Lord Mansfield, "instead of finding credit, deserve the pillory." Lord Eldon, however, has not gone so far as totally to exclude such evidence, but has very properly said that it should be received with the utmost caution and most scrupulous jealousy. As, however, no respectable Medical man would be likely so far to forget himself, either in witnessing under such circumstances, or in impeaching his own act afterwards, we need not dwell upon this point, further than to say that such testimony is in practice never relied on unless corroborated.

Of course, where general lunacy has been established, the parties alleging a lucid interval must show that the alleged lunatic was at the time of making his will capable of judging of the act he was performing. But it has been said with much justice by Sir William Wynne in Cartwright *v.* Cartwright, 1 Phill. Eccles. Rep., pp. 90-121, that "the strongest and best proof that can arise as to a lucid interval is that which arises from the act itself, which is the thing to be first examined; and if it can be proved and established that it is a rational act, rationally done, that is sufficient. Unquestionably," continued the judge, "there must be complete and absolute proof that the party who had framed a wise and rational will did it without any assistance. If the fact be that he has done as rational an act as can be, without any assistance from another person, nothing more is necessary to be proved." The rule of law in the case of lunaties with lucid intervals of course inverts the order of proof and of presumption, the onus of proving the lucid interval resting upon those who desire to take advantage of it; and where the will of such a person is not wholly free from folly or caprice, the difficulty of proving that it was nevertheless made during a lucid interval is of course enhanced. On the other hand, every person is presumed to be of sound mind until the contrary be shown; therefore it is incumbent on the party attempting to defeat a will on the ground of the testator's

insanity, to prove the existence of such disability (Swinburne on Wills, vol. i., p. 119; Evans *v.* Knight and Moore, 1 Add. 382). But still the question remains, what amount of capacity would be deemed sufficient to establish the testator's competency. In a case decided by the judicial committee of the Privy Council their Lordships were of opinion that in order to constitute a sound disposing mind, a testator must not only be able to understand the nature of his bequest, but also have capacity to comprehend the extent of his property; and that the protection of the law is in no cases more needed than it is in those where the mind has been too much enfeebled to comprehend more objects than one, and more especially when that one object may be so forced upon the attention of the invalid as to shut out all others that might require consideration. Upon the whole, it appears that the capacity for making a will does not rest upon the question of sanity or insanity, but rather upon competency or incompetency. A disposing mind at the time, and a free and unrestrained or uninfluenced power of volition, seem to be the main ingredients—a disposing mind, of course, embracing a power of comprehenston of at least more objects than one. A man may be perfectly sane, and yet be deemed incompetent to make a will. It was observed by Sir J. Nicholl in a case before quoted, that "it is a great but not an uncommon error to suppose that, because a person can understand a question put to him, and can give a rational answer to such a question, he is of perfect sound mind, and is capable of making a will for any purpose whatever, whereas the rule of law—and it is the rule of common sense—is far otherwise." The *competency* of mind "must be judged of by the nature of the act to be done, and from a consideration of all the circumstances of the case." As, however, insanity must be an entire bar to any such power of deliberation and judgment as is implied in the term "a disposing mind," we will briefly refer to the legal definition of insanity which incapacitates in all civil cases. Delusion has been generally laid down as essential to constitute insanity, and the absent or present delusion forms the only test of absent or present insanity. Mere extravagances or eccentricities are not sufficient. Sir John Nicholl said, in the case before quoted, "that no case had ever come under his notice where insanity had been held to be established without any delusion ever having prevailed, nor was he able to understand what is meant by '*a lucid interval*' if it did not take place when no symptom of delusion can be called forth at the time. How but by the manifestation of the delusion is the insanity proved to exist at any one time? The disorder may not be permanently and altogether eradicated, it may be liable to return; but if the mind is apparently rational upon all subjects, and no symptoms of delusion can be called forth on any subject, the disorder is for the time absent—there is then an interval. It may often be difficult to prove a lucid interval, because it is difficult to ascertain the total absence of all delusion." But, as we shall presently see, a person during such a lucid interval is deemed perfectly, not partially, sane. Where delusion exists in the mind of a person on one or more particular subjects, it has been termed, through want of a precise definition, partial insanity, and in civil cases this kind of insanity, if existing at the time the act is done, without a lucid interval, invalidates the act. This subject is clearly elucidated in the observations of Lord Lyndhurst, reviewing the judgment of Sir J. Nicholls before mentioned. "The only point of law," said his Lordship, "that has been agitated, has arisen out of an expression made use of by the learned judge in the court below. He speaks of *partial insanity*. . . . But I think the argument founded upon that phrase proceeds upon a misapprehension of what was meant by the learned judge who occasionally used it. All that the learned judge meant to convey was that it was no objection to the imputation of unsoundness, that it manifested itself only or principally with reference to one particular question or one particular person. It was not meant that a person could be partially insane and sane at the same moment of time; to be sane, the mind must be perfectly sound, otherwise it is unsound. All that was meant was that delusion may exist only on one or more particular subjects. In that sense the very same term is used by no less an authority than Lord Hale." (Dew *v.* Clark, 5 Russ. 166, 168.)

Deeds executed by lunatics during their lucid intervals are valid equally with wills, and a deed executed by a party whilst under confinement in a lunatic asylum has been held good, it being clearly shown to the satisfaction of the Lord Chancellor (Eldon) that it was executed during a lucid interval. Thus not only in the case of wills, but also in the case of deeds, may Medical men be called upon to attest the execution of an instrument by a person up to that time of undoubted insanity, and at the moment of execution an inmate of a lunatic asylum, and yet, as in a case reported in 5 Dowling, P.C. 236, betokening at the time the greatest possible lucidity of intellect, doing it under a sense of his situation, and under the impression that no time was to be lost, and to protect himself against a relapse. The responsibility attaching to the position of a Medical attesting witness under such circumstances can scarcely be overrated. It may be here mentioned that the same amount of incapacity which would invalidate a will would likewise invalidate a deed, even though the incapacity involved fell short of that of the strict definition of an idiot.

But under no circumstances can any person who, since June 24, 1742, has been found a lunatic by inquisition, either in Great Britain or Ireland, contract marriage, even during a lucid interval, till the commission has been superseded.

How far mere weakness of mind, if no insane derangement existed in the strict sense, accompanied by clandestinity, inferring fraud and intervention in the other party, might invalidate a marriage, we will not stop here to inquire. Suffice it to say that to marry a *non compos*, the custody of whom has been granted to the Great Seal, is a contempt of the Court of Chancery, for which the offender and all concerned may be committed for the term of their natural lives. We reserve our remarks on the responsibility of persons of unsound mind in criminal cases for a further occasion. W.

REVIEWS.

A Treatise on Gout, Rheumatism, and the Allied Affections. By Peter Hood, M.D. London: J. and A. Churchill. Pp. 417.

This is a work worthy of consideration, not only from the importance and difficulty of the subject, but from the position of the author, inasmuch as it is not the theoretical production of one who desires increased practice, but of one who aims at giving "the matured results of long practical experience." In his preface the author says:—"It may possibly seem to some of my juniors that I now and then use words suggestive of a time at which their studentship had not commenced, and that my phrases step beyond the limits of the now accepted groove." To us such a mode of treating the subject will be far from unwelcome, nor do we think that, in spite of text-books, our Profession is content to settle down into any universally accepted groove. The key to Dr. Hood's treatment is contained in the fact that he aims at treating the patient rather than the disease—a principle whose soundness we gladly corroborate. But now as to the contents of the book.

Chapter I. is introductory, and deals with the history of the disease. There is not much that is new here, the most important novelty being Stirling's account of the sufferings of the Emperor Charles V. from gout, and the errors of diet committed by the monarch. Anthony White's account of his own malady, and some account of the views of Scudamore, Gairdner, and Garrod.

Chapter II. is descriptive, nd in most works this is a chapter we are strongly tempted to cut; for where can we find a description of the disease equal to that by the immortal Sydenham? Nevertheless, we have here some interesting material, not the least being the author's own views on the treatment of disease. He bewails the abandonment of judicious bloodletting, and still more that of catharsis, especially in cases of "local visceral congestion"; and tries to show that the use of stimulants is but another mode of attaining the same end—the depletion unloading the capillaries, the brandy stimulating the action of the heart to overcome capillary congestion—the former being most useful for strong, the latter for weak individuals. The remainder of the chapter is occupied with an account of the complications or terminations of gout in different subjects.

The causes of gout are next discussed, and this is perhaps the most ticklish part of the whole book. The popular theory at the present moment is that gout is entirely dependent on excess of uric acid in the system, and that its inflammatory symptoms are caused by deposits of urate of soda in the ends of bones and the neighbourhood of joints. It is exceedingly difficult to understand why such an exceedingly narrow view of the causation of the disease should have obtained so widely, nor could it, we think, have done so had it not been for the deluding ease with which the existence of the acid could be demonstrated. Neither can we, on the other hand, give in our adherence to the views of Dr. Gairdner, who held that all depended on venous congestion. No doubt

there is venous congestion, especially in the neighbourhood of the inflamed joint; but to acquire a just knowledge of the origin of the disease, we must search into the causation of this, also. In truth, both excess of uric acid as well as venous congestion are of the nature of symptoms rather than of causes. Dr. Hood does not seem inclined to accept any one cause as the cause of gout, except we take the word "cause" in its very widest sense. Thus he says—"I regard gout as being essentially a result of the imperfect elimination of excrementitious matter from the blood, and this imperfect elimination as being due to a variety of causes, among which the chief would be impaired nervous action, congestion of blood due to local causes, and congestion of blood due to imperfect performance of the functions of the heart." Had Dr. Hood stopped short with the enunciation contained in the former part of the sentence, we would have been most heartily with him; but whilst, from our point of view, he excludes some of the most competent factors of the accumulation of what he calls excrementitious matters, he includes others we cannot accept. That, however, gout is due to the circulation of something which may, with slight stretch of the imagination, be called excrementitious, is, in our opinion, certain. Uric acid is one of these, but only one of many; we even question if it is the most important.

The subject of Gouty Inflammation is discussed in Dr. Hood's next chapter, a considerable portion of which is occupied with a discussion of Dr. Bence Jones's views on the subject. Now, Dr. Jones's views on the subject are very well worth attention, but they only include a portion of a great subject. Inflammation is something more than hyper-oxidation; just as it is something more than blood stasis and migration of white corpuscles. Increased local nutrition and proliferation of the protoplasmic masses in the neighbourhood, all have to be considered. Doubtless, all of these are modified in the peculiar inflammation of gout, but it would be difficult to say which is most so. We are certainly inclined to give more importance to what might be called the vital than to the merely chemical part of the process. It is, however, in what relates to the treatment of gout we would expect to learn most from Dr. Hood, who is nothing if not what it is fashionable to call a practical man. It is quite evident that many of his opinions as to the causation of gout are founded on the results of his treatment, in accordance with the old rule that the cure shows the nature of the disease—a rule with which, in many instances, we should be sorry to find fault.

In a first attack of gout with a robust constitution, strong pulse and fever being present, a purgative to open the bowels and stimulate the liver is at once indicated; afterwards, to allay the fever, salines, as citrate of potass or soda, sweet spirit of nitre, with tincture of henbane, may be given. To relieve pain the author recommends morphia or laudanum. Subsequently the bromide or iodide of potassium may be given twice or thrice a day; the bowels should be kept open, and liquid nourishment alone taken. As a local application Dr. Hood strongly recommends whisky. It is quite true that in Scotland, where whisky is chiefly used, gout is rare, but there the habitual practice is to allow it to sink to the sore, the dose being taken internally, and its local use would be considered a waste of the gifts of Providence. As to colchicum, Dr. Hood on the whole pronounces against its use, although its wonderful efficacy in allaying pain cannot be overlooked; in this we quite agree with him.

We should have liked to have followed Dr. Hood through other portions of his valuable and interesting book did space permit, but we have sufficiently indicated its scope, and the best service we can do our readers now is to refer them to its pages, where seekers after truth will in nowise meet with disappointment.

COLONIAL CORRESPONDENCE.

VICTORIA, AUSTRALIA.

Melbourne, June 17.

On June 1 died Dr. David John Thomas, of this city, the senior Practitioner of the colony. Dr. Thomas came to Victoria thirty-three years since, and, with the exception of a six years' visit to Europe—namely, from 1853 to 1859—he had practised continuously in Melbourne. No man was better known in Australia, nor more deservedly respected. He was thoroughly in love with his Profession, and he never ceased to study the art of healing. He died, after six hours' illness, of apoplexy. At one time Dr. Thomas had by far the largest and most lucrative practice in Australia, and when he went to England in 1853 he was a rich man; but by the time he returned everything had greatly changed, so that his course for some time had been an uphill one. He had, nevertheless, not relaxed in the earnestness and ardour which always characterised him. His failing health necessarily rendered him less able to bear the fatigues of general practice; but, as a consultant, he had for many years been in general request. His operations at the Hospital always attracted a crowd of spectators, and the interest of these occasions was enhanced by the pithy little speeches he almost invariably made in explanation of the cases. He contributed most of the Hospital Reports to be found for some years past in the *Australian Medical Journal*, and he seldom failed to take part in the discussions at the Medical Society. Personally he was much liked; for, though impulsive, excitable, and at times irritable, he was a man of a warm and kindly disposition. At the annual Medical dinner he was ever the cheeriest and merriest of them all, and, though his perception of the humorous now and then showed itself in a practical form, it was always of a kind that even the subjects upon whom he practised could not help but be amused at. He will ever be remembered as one of the pioneers of Medicine in Victoria; but, still better, he will be remembered as a member of the Profession who never failed to uphold its dignity and maintain its privileges.

The subject of fraudulent admission into our public charities has lately a good deal occupied both public and Professional attention. People know so little of each other here, that it is very easy for a person to represent himself as destitute, and not be found out in the imposture. Very recently, a man admitted into the Melbourne Hospital was discovered to be in the possession of several hundreds of pounds, and this case, it is well known, is only one among many. It has long since been proposed that an officer should be appointed, having the duty of examining into all cases of a doubtful character; and, judging from the earnestness with which the subject is being just now investigated, it is possible this remedy will at any rate be tried. What with the indiscriminate admission of Hospital patients, however, the infinite multiplication of friendly societies, and the general disposition of a large section of the public to repudiate their Doctors' bills, it is a little difficult for the Profession to live—saving always, of course, those few fortunate members of it who, from various causes, are able to command the public, and whom the public never think of not paying. The committee of the new Alfred Hospital, with the possibly laudable intention of making some people pay who otherwise would not, have adopted the principle of admitting pay-patients at the rate of £2 a week. One effect of this arrangement, however, will be to take so much out of the pockets of the honorary staff and put it into the coffers of the Hospital. Besides which, it will admit a class of persons who, on the strength of the paltry sum thus contributed, will consider themselves entitled to grumble at everything about them, just as if they were living in an hotel, and paying ten guineas a week, exclusive of Medical attendance. The pay-system has not worked well in other Hospitals in this colony where it has been tried, and it is not likely to work well at the Alfred. The regulation is just now the more inopportune, inasmuch as it rather confirms the general belief that the Alfred does not fill; and this pay-system looks like a surreptitious mode of getting patients from a class that it was never intended to accommodate.

The testimonial lately presented to Professor Halford, in recognition of his labours as the discoverer of what abundant evidence has proved to be an efficacious remedy for snake-poisoning, has excited the anger of the small virulent section of the Profession who neither work nor discover, but who consistently malign and disparage those who do. I think I mentioned in my last that three of the daily newspapers in this city have homœopathic leanings, one of them being edited by a man who holds a homœopathic qualification which the Medical Board very properly will not recognise. Another ranks among its leader-writers, a rabid homœopath, and he has lately lent himself most discreditably to the task of throwing doubt upon Professor Halford's discoveries by misquoting from Jahr's Materia Medica, so as to make it appear as if Jahr had suggested the injection of liquor ammonia as a remedy for snake-poisoning. The *Australian* very properly exposed this literary fraud, and the *Australian Medical Journal* has republished the paragraph with comments.

I suppose the antagonisms existing in the Profession here are not more active than exist in other parts of the world; but if there is any difference in the activity it is in favour of us here

—unquestionably it is, so far as quantity is concerned. Nothing certainly can be bitterer than the virulence with which the hostility towards Professor Halford is kept up, and, so far as I can see, for no reason at all beyond the reason for which Dr. Fell was similarly hated. Professor Halford's friends, however, far outnumber his enemies; and, as he continues to work, no matter how hard these curs may bark, the conclusion to which one may fairly come is, that they will tire of barking before he tires of working.

I am happy to say that the two cases upon which ovariotomy was performed at the Lying-in Hospital by Dr. Tracy and Dr. Martin, and which at first seemed so unpromising, have both done well, and are now convalescent.

PROVINCIAL CORRESPONDENCE.

BIRMINGHAM.

August 7.

The guardians of the poor of this parish have at last resolved to give the Dispensary system a fair trial. In September, the out-door poor, instead of attending at the surgeries of the District Medical Officers, will be seen at the parish buildings, where the necessary alterations are being made for their reception. Two of the Medical officers will attend daily, and see all the cases which present themselves. This new arrangement has given great satisfaction, and will, no doubt, be found to work beneficially. Such an important step as this has not, however, been taken without having met with considerable opposition. The guardians have had to be educated ere they could take into their mental grasp all the important and essential details which it possesses; and this instruction has been much advanced by the impetus given by the voice of the Poor-law Board and public opinion. One of their own number —much to his credit be it said—has done most useful service in this undertaking. He is a member of our own Profession, too, and it is to his indefatigable exertions that practical effect has been given to the Dispensary question. Although he has been opposed, and even abused, time after time, he has with praiseworthy pluck and persistency stuck to his text, and carried out his plans. This is a victory for him which must afford him much satisfaction. I am only sorry to add that it will be the only reward he is likely to obtain.

Small-pox is not prevalent in Birmingham. There have been a few isolated cases of the discrete variety which have done well, and there are no signs of this disease assuming an epidemic character. The town for the time of year is peculiarly healthy. Diarrhœa, which usually prevails extensively at this season, is not at all prevalent. The Women's Hospital has secured the confidence and support of the public, and is in a fair way of becoming one of the most thriving and popular institutions in the town. Its Medical staff is complete, and consists of some of the best young talent in the provinces. How far this new institution will interfere with the welfare of the midwifery department of the Queen's Hospital is a question possessing many points of interest, which I will leave others to discuss. Since a special ward has been set apart in the Queen's Hospital for the treatment of the special diseases of women, many operations of an important nature have been performed by the able Surgeon-Accoucheur of the department, and have been attended with marked success. As an illustration of the influence of the Medical Profession in public matters and works of charity, I may mention as an instance the Idiot Asylum at Knowle. This institution owes its existence to our distinguished Physician, Dr. Bell Fletcher, who is always foremost in good works; and it has, under his judicious care, attained a high position. Last week a musical festival was held at Solihull for the benefit of it, which was a success financially.

The working-men's fund for the enlargement of the Queen's Hospital represents the respectable sum of upwards of £5000 —the working-men themselves having contributed nearly £4000 towards this amount. Another appeal has been made to those who have not yet subscribed, and it is hoped and expected that the money required for the contemplated additions to this excellent charity will soon be amassed. The Queen's Hospital, then, with its new attractions, will stand second to none in the provinces as a Hospital and a clinical school.

A sad case of death by misadventure has just occurred here. An assistant to a Medical man sent to a patient an embrocation containing aconite instead of a draught, which quickly caused death. An inquest has been held, and adjourned for the purpose of having the stomach of the deceased analysed. Whether or not there be any gross negligence on the part of the accused, I will not presume to say until after the completion of the investigation. But such a fatal mishap is pregnant with fearful instruction, and, occurring in the practice of anyone, must necessarily be attended with consequences highly detrimental to his interests and reputation.

I am pleased to record the fact that Dr. Wade has been made a Fellow of the Royal College of Physicians, on the nomination of the Council, and that Drs. Jolly and Thomas have been added to the Professorial staff of the Queen's College, which, from their ability as teachers, must be benefited by the connexion. Our local papers are full of the miserable pittance which was doled out to Mr. Oliver Pemberton by the Carlisle jury last week. He, being called upon to give evidence in Murphy's case, received the paltry fee of £1 1s., with second-class railway fare, to compensate him for absence from his extensive practice two days. Most properly, he has complained of such totally inadequate remuneration, and, from the attention of Parliament having been directed to the case, it is hoped and expected that in future Medical witnesses will receive fair and equitable remuneration.

GENERAL CORRESPONDENCE.

"QUICK WITH CHILD."

Letter from Mr. Weightman.

[To the Editor of the Medical Times and Gazette.]

Sir,—As Dr. Bree has addressed "one word" on this subject to me, personally and by name, I have no alternative but to ask permission of you to return the compliment. Dr. Bree says—"A child in utero is alive from the first day of conception." I would rather express it, "from the very moment of conception." But Dr. Bree does not say how soon after conception a child in utero may die. The remark of which he complains—"for barely *with child*, unless it be *alive* in the womb, is not sufficient"—is not my remark, although the Doctor attributes it to me, but it is that of the once eminent Judge, Sir William Blackstone, as by a more attentive perusal of my former letter would at once appear. But how that remark "displays the truly horrid state of the law" I confess I cannot discover.

The first object of the law is to ascertain whether the woman's plea that she is with child, is true. This, as Dr. Bree truly says, "is often a most difficult thing to discover, and eminent and experienced men are sometimes deceived." The next step is to ascertain, if possible, whether, if with child, the child is alive or dead. The terms "the quick and the dead," are familiar to all. There is no mystery about them. The one is the antithesis of the other. Dr. Bree will admit that a woman may be with child, and yet be carrying in her womb a dead, nay, a putrid child; and if such were the case, it would not be sufficient to stay execution. This is all that is meant by Judge Blackstone's words, before quoted. There is no "quibble about the period of quickening" in the legal mind. That period is universally acknowledged to be at conception; but to say, as Dr. Bree asserts, that, "previous to quickening the woman contains within her womb a human living being," is a contradiction in terms. The fact of the child being felt by the woman to move, is not the "quickening" itself, but simply the best evidence that the child is at that time alive, or "quick"—in other words, that it has not ceased to exist since conception. But the embryo fœtus may be alive, but not have acquired as yet the power of motion. Doubtless a "living child is always alive in utero." This is a self-evident truism; but there may be a dead child in utero. The "quick with child" notion, as attributed by Dr. Bree to the lawyers, though of "barbarous ages," never existed except in Dr. Bree's imagination, and certainly it is not to be found in any of our "statutes," and consequently cannot "disgrace" them. The very reverse of Dr. Bree's suggestive "quibble," that "a child may not be quick on Tuesday, but it may on the Wednesday," is the only common-sense view—viz., that a child may be quick or alive on the Tuesday, but not quick or alive on the Wednesday. It is very easy to denounce the law as disgraceful—to talk about the murder of innocents—to indulge in strong adjectives—to sneer at Judge Blackstone—to speak of "matrons or discreet women" as "old gossiping women", "a dozen old women"—and to try to mystify the simple word "quick" by

attributing to it a meaning which was never yet attached to it by any but the vulgar; but the real desideratum is how to improve the legal process of discovering the proof of the woman's plea that she is *enceinte*. Possibly the process might be simplified by allowing the proof of being with child to be sufficient, without requiring further evidence of the child being alive in the womb, but taking the chance of it's being then alive. But even in this investigation Dr. Bree would dispense with the services of the "dozen old women." Yet what tribunal would he substitute for them? Would the opinion of any one Medical man be satisfactory in what "is often a most difficult thing to discover"? If not, would a jury of twelve Medical men improve matters? Judging from the differences of opinion among Medical witnesses, might we not reasonably fear "Quot homines, tot sententiæ," to say nothing of the difficulty of empannelling upon a sudden emergency twelve Medical men? A jury of any other men, on such a delicate matter, would be quite out of the question. The woman at the bar is entitled by inalienable right to a jury of twelve persons, male or female, to decide the point. What, then, remains but a jury of her own sex, deferring, as in practice they do in all matters of science, to the opinion of the Medical man appointed to assist them, but, at the same time, not wholly ignoring their own physical experience on a subject of special interest to their sex, and of which, under Medical guidance, they may surely be supposed not utterly incompetent to express an opinion; always remembering that the prisoner in this, as in the determination of every other fact, is entitled to the benefit of a doubt: and that maxim, in the absence of most conclusive evidence to the contrary, will always result in a verdict respiting execution of the sentence.

The query—Why do not the half-dozen medical men in Parliament "have the law amended"?—as if, indeed, the whole country were under a Medical dictatorship—I dismiss, with an apology for having already occupied so much of your valuable space; but misunderstandings between the two professions had far better be ventilated than secretly cherished.

I am, &c.,

Temple, August 7. HUGH WEIGHTMAN.

OBITUARY.

ROBERT SHIPMAN, F.R.C.S., ETC.,

DIED on July 25, at Grantham, where for more than thirty years he enjoyed the esteem and confidence of a large and influential circle of friends. In his public capacity as alderman, mayor, and magistrate, his unvarying uprightness of character, and uniformly straightforward, kind, and gentlemanly bearing commanded the respect of all. The poor always received from him the greatest kindness and consideration. Amongst his Professional brethren he was ever known as most courteous and strictly honourable. His death will long be deplored by all; especially by those who have either benefited by his undoubted skill or enjoyed the pleasure of his friendship.

BRANLEY WHITTLE, M.R.C.S., L.S.A.,

WAS born at Croydon in 1809, and was apprenticed to Mr. Dix, at Long Buckby, in Northamptonshire. He was a student at Guy's Hospital, and spent some time at the Paris Hospital. He practised for upwards of thirty years in Norfolk-street, Strand, as a General Practitioner. In 1864 he partly retired from practice, residing in Longton, in Dorsetshire, and in 1867 he removed to Sidbury, in East Devon, where he died of heart disease, aged 62 years.

MEDICAL NEWS.

UNIVERSITY OF ABERDEEN.—During the past year, the following candidates, after the usual examinations, received Degrees in Medicine and Surgery:—

The Degree of M.D.

Dutt, Russick Laul, M.R.C.S.E., L.S.A., Calcutta.
Ghose, Kristo Dhan, M.R.C.S.E., L.M.S.C., Calcutta.
Matthews, Josiah Wright, L.F.P. & S. Glasg., and L.S.A. Lond., Port Natal.

At the same time, the following gentlemen received promotion to the Degree of M.D.:—

Arbuckle, Hugh Wight, M.B., Thorne, Doncaster.
Brown, Charles Robert, M.B., C.M., Beckenham, Kent.
Coleman, Matthew Owen, M.R.C.S., M.B., Surbiton, Surrey.
Coutts, James Allen, M.B., C.M., Banchory-Ternan.
Crowther, Edward Lodewyk, M.B., C.M., Alford, Lincolnshire.
Cullen, James, M.B., C.M., Chumparun, Bengal.
Dyer, Thomas Birch, M.B., C.M., Bethlem Royal Hospital, London.
Hocken, Charles Edward, M.B., Wood-green, Middlesex.
Keith, Joseph Forbes, M.B., C.M., Aberdeen.
Nicol, Patrick, M.B., C.M., Bradford.
Simpson, George Alexander, M.B., C.M., London.
Wood, Alexander, M.B., C.M., Edwardesabad, Bengal.
Woodford, Edward Russell, M.B., C.M., Ventnor, Isle of Wight.

The Degree of M.B.

Benham, William Thomas, Bristol.
Bovill, Edward, M.R.C.S. Eng., London.
Brotchie, Theodore Rainy, Aberdeen.
Carless, Edward Nicolls, Devizes.
Carmichael, Archibald, M.A., Maryculter.
Chiappini, Peter Alexander, Cape of Good Hope.
Cobban, Alexander Richard, Whitfield, Berkeley.
Creighton, Charles, M.A., Peterhead.
Crombie, Charles Mann, Aberdeen.
Davidson, Charles, Aberdeen.
Davidson, George Farquhar, Aberdeen.
Edwards, William Henry, M.R.C.S E. (St. Bartholomew's), Antigua.
Edwardes, Lewis, M.R.C.S. Eng., Wimbledon.
Fasken, William Andrew Durnford, M.R.C.S. Eng., London.
Goodhart, James Frederic, L.R.C.P. Lond., M.R.C.S. (Guy's), Brighton.
Gordon, John, Gray's Hospital, Elgin.
Hay, Frederick, Hull.
Jotham, George William, Kidderminster.
Knaggs, Samuel Thomas, L.K. & Q.C.P.I., L.R.C.S.I., Newcastle, New South Wales.
Lawrence, Nathaniel, Longside.
Lowson, David, Aberdeen.
M'Culman, Hugh, Caithness.
Maclean, John Cassilis Birkmyre, M.A., Kiltearn, Ross-shire.
Marshall, Lewis Walter, M.R.C.S. Eng., Bristol.
Milne, Thomas, M.A., Ellon.
Raitt, Thomas, Aberdeen.
Shepherd, James, M.A., Aberdeen.
Simpson, James, Aberdeen.
Waldo, Henry, Clifton.
Walsham, William Johnston, L.S.A. Lond. (St. Bartholomew's), London.
Wharry, Charles John, M.R.C.S. Eng., L.S.A. Lond., Woolwich.
Williams, Alfred Henry, London.
Wilson, Alexander, M.A., Rayne.

The Degree of C.M.

Benham, Wm. Thomas.
Bovill, Edward.
Brotchie, Theodore Rainy.
Carless, Edward N.
Carmichael, Archibald.
Chiappini, Peter Alexander.
Cobban, Alexaoder Richard.
Creighton, Charles.
Crombie, Charles Mann.
Davidson, Charles.
Davidson, George Farquhar.
Edwards, William Henry.
Fraser, George Innes.
Goodhart, James Frederic.
Gordon, John.
Hay, Frederick.
Jotham, George William.
Knaggs, Samuel Thomas.
Lawrence, Nathaniel.
Lowson, David.
Maclean, John Cassilis Birkmyre.
M'Calman, Hugh.
Marshall, Lewis Walter.
Matthews, Josiah W.
Milne, Thomas.
Raitt, Thomas.
Shepherd, James.
Simpson, James.
Waldo, Henry.
Walsham, William Johnston.
Wharry, Charles John.
Williams, Alfred Henry.
Wilson, Alexander.

Of the above-mentioned Candidates, Archibald Carmichael, James Frederic Goodhart, David Lowson, William Johnston Walsham, and Alexander Wilson received their Degrees in Medicine and Surgery, with *Highest Academical Honours*; Russick Laul Dutt, Kristo Dhan Ghose, Samuel Thomas Knaggs their Degrees in Medicine, with *Academical Honours*; and John Cassilis Birkmyre Maclean, Lewis Walter Marshall, and Thomas Milne their Degrees in Surgery, with *Academical Honours*.

The Theses of James Frederic Goodhart on "Artificial Tubercial Tuberculosis and its relation to Cellular Pathology, and the growth of Tumours;" of Samuel Thomas Knaggs on "The Sagacity of Nature's plan as exhibited in the arrangement of the Tendons of the Digits of Vertebrate Animals;" and of William Johnston Walsham on "The Thermometer as an aid to the Diagnosis and Prognosis of Disease," were considered deserving of high commendation.

At the same time Louis Richard Connor was certified as having passed all the Examinations, and is entitled to receive Degrees on his attaining the necessary age; and, at the late Graduation Term, the following were declared to have passed part of their Examinations:—

Burrell, Alexander.
Butler, Anthony.
Campbell, William.
Connon, Charles James.
Elliot, Frederick William.
Farquharson, Patrick D.
Febrsen, James M'Call.
Ferguson, John Edward.
Forsyth, Alexander.
Garden, Robert John.
Garner, John Edward.
Gibbes, Cuthbert C.
Godson, Clement.
Gosse, Charles.
Gray, Robert Aikman.
Greig, Charles Cormack.
Hoole, Pemberton Abel.
Inglis, James.
Law, James.
Lawrence, Alfred E. A.
Lawson, William.
Lechler, Henry Martin.
Low, David.
Macdonald, John Davidson.
M'Kenzie, Murdoch.
Mitchell, Andrew.
Moir, Forbes Fraser M.
Newcombe, Charles Frederic.
Reid, James.
Rigby-Hughes, John.
Robertson, George James.
Sinclair, William Japp.
Smith, George Washington.
Stephen, James.
Swaine, Frederick Robert.
Williamson, William H.
Wright, Francis James.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—At an extraordinary meeting of the College, on Monday, the 7th inst., the following Members were admitted Fellows :—

Child, Gilbert William, M.D., Oxford.
Copeman, Edward, M.D., Upper King-street, Norwich.
Drake, Augustus, M.B., Southernhay, Exeter.
Fox, Tilbury, M.D., 43, Sackville-street.
Hensley, Philip John, M.D., 4, Henrietta-street, Cavendish-square.
Hitchman, John, M.D., Mickleover, near Derby.
Leared, Arthur, M.D., 12, Old Burlington-street.
Stevenson, Thomas, M.D., Guy's Hospital.
Williams, Charles Theodore, M.D. Oxon., 78, Park-street, Grosvenor-square.

And the following gentleman was admitted a Licentiate of the College :—

Noad, Henry Carden, St. George's Hospital.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, August 3, 1871 :—

Barrow, Frank Edward, Woolwich.
Barrow, Henry John Waller, Woolwich.
Benham, William Thomas, Royal Infirmary, Bristol.
Bland, George, Dalston.
Henson, Walter Knowsley, Hull.
Wade, Reginald, Cross, Somerset.

The following gentlemen also on the same day passed their first Professional examination :—

Fairbank, William, St. Bartholomew's Hospital.
Floyer, B. Bernard, Middlesex Hospital.
Hall, Frank Algernon, St. Bartholomew's Hospital.
Harvey, William, St. Bartholomew's Hospital.
Powell, Joshua, University College.
Thompson, Francis Henry, St. Thomas's Hospital.
Triggs, John B. B., University College.
Welchman, Edward, St. Thomas's Hospital.
Vines, Edward Prince, King's College.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

ALLEN, MARCUS, M.R.C.S., L.R.C.P., L.M.—Resident Accoucheur at St. Bartholomew's Hospital.

BARFF, Mr., M.A. Christ's College, Cambridge—Professor of Chemistry to the Royal Academy.

BURMAN, J. WILKIE, M.D. Edin., late Assistant Medical Officer, Devon County Lunatic Asylum, Exminster—Assistant Medical Officer to the West Riding Lunatic Asylum, Wakefield.

DRINKWATER, WILLIAM, L.R.C.P. Edin., M.R.C.S. Eng.—Medical Officer and Public Vaccinator to the Workhouse and Bicester District of the Bicester Union.

EVANS, G. H., M.A., M.D., Fellow of King's College, Cambridge.—Resident Assistant-Physician at St. Thomas's Hospital.

HAYWARD, W. H., M.R.C.S.E., L.S.A., etc.—Medical Officer to the Oldbury Board of Health.

MAGRATH, JOHN, L.S.A. Lond.—Assistant Resident Medical Officer to the Leeds Public Dispensary, *vice* Edmond West Symes, M.B. Edin., appointed Senior Resident Medical Officer.

MATHEWS, GEORGE C., L.R.C.S.I., L.R.C.P. Edin., and L.M. Edin.—Medical Officer to the Moate Dispensary District of the Athlone Union.

O'FARRELL, G. PLUNKETT, M.B., B.A., M.R.C.S., etc.—House-Surgeon to St. Peter's Hospital, Berners-street, W., *vice* S. G. Sloman, jun., L.R.C.P., M.R.C.S., resigned.

ROBERTS, Dr. FREDERICK—Assistant-Physician to the Hospital for Consumption, Brompton.

SLOAN, WILLIAM, M.D., L.F.P.S. Glasg.—To the Division of the Blair Iron Works rendered vacant by the death of Dr. Hamilton.

THOMPSON, GEORGE, L.R.C.P. Lond., M.R.C.S.E.—Medical Superintendent of the Bristol Borough Lunatic Asylum.

THOROWGOOD, JOHN C., M.D. Lond.—Junior Physician to the West London Hospital at Hammersmith.

YOUNG, WALTER W., M.B. Edin., C.M., etc.—Medical Officer to the Aldershot District of the Farnham Union, comprising the parishes of Ash and Aldershot.

NAVAL AND MILITARY APPOINTMENTS.

ADMIRALTY, August 2.—The undermentioned Assistant-Surgeons have been promoted to the rank of Surgeon in her Majesty's Fleet, with seniority of this date :—William Yarde, M.D. ; Charles John Fennell ; Edward Jones Butler, M.D. ; Matthew Coates ; William Pattullo, M.D. ; Thomas Alexander O'Flaherty, M.D. Also, Mr. George Bruce Newton has been promoted to the rank of Staff Surgeon in her Majesty's Fleet ; Mr. Newton has been specially promoted for services in the suppression of small-pox, etc., in Japan.

BREVET.—Inspector-General of Hospitals Archibald Gordon, M.D., C.B., on half-pay, to be Honorary Surgeon to her Majesty, *vice* Thomas Mostyn, deceased.

ROYAL ARTILLERY.—Assistant-Surgeon George Traynor, from 46th Foot, to be Assistant-Surgeon, *vice* Henry Harrison, who exchanges.

46TH FOOT.—Assistant-Surgeon Henry Harrison, from Royal Artillery, to be Assistant-Surgeon, *vice* George Traynor, who exchanges.

BIRTHS.

BUCHANAN.—On August 4, at Staines, Middlesex, the wife of John Hamilton Buchanan, M.D., of a son.

EASTWOOD.—On August 2, at Dinsdale-park Retreat, Darlington, the wife of J. W. Eastwood, M.D., M.R.C.P.L., of a daughter.

HUMBLE.—On June 4, at Patagones, South America, the wife of the Rev. George A. Humble, M.D., M.R.C.P., of a son.

MILLAR.—On August 5, at 48, Albany-street, Edinburgh, the wife of John Millar, M.D., F.R.C.P.E., of a son.

PEARSON.—On August 2, at 23, Upper Phillimore-place, Kensington, the wife of David R. Pearson, M.D., of a son.

RIDDELL.—On August 4, at St. Mary's-terrace, Maida-hill, the wife of G. Dalziel Riddell, Surgeon Madras Army, of a son.

WOODMAN.—On August 2, at Chichester-place, Southernhay, Exeter, Devonshire, the wife of John Woodman, F.R.C.S., of a son.

MARRIAGES.

GAUVREAU—CATTLEY.—On July 15, at Portland, Maine, U.S., Elizear Gauvreau, M.D., of Redwood, California, to Caroline Cattley, relict of Henry B. Cattley, Esq., of Doctor's-commons, second daughter of the Hon. W. Swabey, of 26, Kensington-garden-terrace, Hyde-park, W.

HOGG—WILLIAMS.—On August 2, at St. Simon's Church, Chelsea, Dr. James Hogg, Dronfield, to Mary Elizabeth, eldest daughter of Samuel Williams, Esq., London.

LOWRY—TUCKER.—On August 3, at Otford, Thomas Harvey Lowry, M.D., to Jane Frend, daughter of the late Captain William Tucker, R.N.

MILLER—FORDYCE.—On August 2, at Brucklay Castle, Aberdeenshire, by the Rev. Archibald Gardiner, M.A., Alexander Gordon Miller, M.D., F.R.C.S.E., Edinburgh, to Jessie, third daughter of the late Captain Alexander Dingwall Fordyce, R.N., of Brucklay and Culsh.

PALMER—TYLER.—On August 2, at All Saints, Loughborough, William Grimes Palmer, M.R.C.S.E., eldest son of William Grimes Palmer, M.R.C.S.E., to Eliza, niece and adopted daughter of John Tyler, Esq., of Thorpe Villa, Loughborough.

PERRY—BLAKE.—On August 3, at Christ Church, Highbury, by the Rev. Gordon Calthrop, M.A., Vicar of St. Augustine's, George Perry, Esq., son of the late George Michael Perry, M.R.C.S., to Catherine, second daughter of G. J. Blake, Esq., of Aberdeen-park, Highbury.

POOLE—BRIDGE.—On August 9, at St. John the Evangelist's, Westminster, Hubert John, youngest son of Henry Poole, Esq., the Old Rectory, Smith-square, Westminster, to Edith Sarah, second daughter of Alexander Bridge, M.D., Argyle-place, Regent-street.

RICHARDS—SOUTHEY.—On July 29, at St. James's Church, Piccadilly, G. Pickering Richards, L.R.C.P. Edin., L.S.A. Lond., L.M., to Mary Ann Southey, only daughter of the late William Southey, Esq., of 5, Bury-street, St. James's.

SHEA—SCHROETER.—On August 8, at St. John's Church, Eltham, Kent, Charles Edward, third son of John Shea, M.D., F.R.G.S., to Margaret Martha, fourth daughter of Frederick A. Schroeter, Esq., of Nottingham, Kent.

DEATHS.

ANDERTON, HENRY, L.R.C.P., F.R.C.S., at his residence, Newferry-park, near Birkenhead, formerly of Woolton, Lancashire, on August 1, in his 82nd year.

ASPRAY, CHARLES, Surgeon, at 8, Newton-road, Bayswater, on August 2, aged 66.

BROWN, ELIZABETH CRANSTOUN, eldest child of the late Andrew Brown, M.D., of Weymouth, at Reading, on August 1, of erysipelas, aged 17.

DUNWOODIE, JOHN, Surgeon R.N., at Portsmouth Dockyard, on August 7, aged 38.

GOWLAND, JOHN EDWARD, M.D., at 29, Great James-street, Bedford-row, on July 28, aged 41.

HARDWICK, HANNAH, the wife of John Hardwick, Surgeon, at Hillside, Worle, Somerset, on August 2.

MACLAREN, GEORGE DAVID, Deputy-Inspector of Hospitals and Fleets, at Brockhurst Cottage, Gosport, on August 3.

RONALDS, JOHN, Esq., son of the late Dr. Henry Ronalds, at Brentford, on August 6, in his 41st year.

SAVAGE, CHARLOTTE, widow of the late Arthur Savage, Surgeon R.N., and second daughter of the late Michael Morrah, Esq., of Worthing, at 3, Clarence-terrace, Southsea, to the inexpressible grief of her sorrowing family, on August 3, in her 66th year.

THORNLEY, ROBERT SAMUEL, M.R.C.S.E., L.S.A., at Long-street, Devizes, on August 5, aged 48.

WOOTTON, Dr. HENRY ABERGAVENNY, late of the Bengal Service, at Dumfries, on July 26, aged 81 years and 4 months.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

BIRMINGHAM, PARISH OF.—Dispenser ; must be duly registered under the Pharmacy Act, 1868. Applications and testimonials to W. Thompson, 1 sq., at the Parish Offices, Paradise-street, on or before August 14.

BOURNEMOUTH GENERAL DISPENSARY.—Resident Surgeon ; must have both Medical and Surgical qualifications and be registered. Applications and testimonials to B. A. Rugg, Esq., for the President of the Dispensary, on or before August 28.

BRADFORD INFIRMARY AND DISPENSARY.—Physician ; must be a Graduate in Medicine of one of the Universities of the United Kingdom, or a Fellow or Member of one of the Colleges of Physicians. Applications and testimonials to Mr. C. Woodcock, Bradford, on or before August 30.

CHESTER GENERAL INFIRMARY.—Visiting Surgeon ; must have both Medical and Surgical qualifications. Applications and testimonials to the "Chairman of the Board of Management," on or before August 28.

COVENTRY PROVIDENT DISPENSARY.—Surgeon ; must be a Member of one of the Colleges of Surgeons of London, Dublin, Edinburgh, or Glasgow, and must hold in addition a Licence from one of the Royal Colleges of

Physicians, or from the Society of Apothecaries. Applications and testimonials to the "Honorary Secretary," on or before August 31.

HUDDERSFIELD INFIRMARY.—House-Surgeon; must have both Medical and Surgical qualifications, and be registered. Applications and testimonials to Mr. John Marsden, on or before August 14.

MIDDLESEX HOSPITAL, W.—Physician; also Assistant-Surgeon. Applications and testimonials to Mr. H. N. Custance, Secretary-Superintendent, on or before August 22.

NORFOLK AND NORWICH HOSPITAL, NORWICH.—House-Surgeon; must have both Medical and Surgical qualifications. Applications and testimonials to Mr. T. R. Tallack, on or before September 8. Election on September 16.

PARISH OF UNST, SHETLAND.—Medical Officer. Applications and testimonials to Mr. White, Inspector of the Poor.

QUEEN'S COLLEGE, BIRMINGHAM.—Medical Tutor and Joint Demonstrator of Anatomy. Applications and testimonials to the Secretary on or before August 31.

UNIVERSITY OF DURHAM COLLEGE OF MEDICINE, NEWCASTLE-ON-TYNE.—Medical Tutor. Applications and testimonials to Luke Armstrong, Esq., College of Medicine, Newcastle-on-Tyne, on or before August 31. It is particularly requested that no *original* testimonials be sent.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Barnsley Union.—Mr. E. Crockett has resigned the Wombwell District; area 6709; population, 4675; salary £20 per annum.

Holborn Union.—The First District is vacant; salary £105 per annum.

St. Giles and St. George, Bloomsbury, Parishes.—Mr. F. Barton, Assistant Medical Officer at the Workhouse, has resigned; salary £150 per annum.

APPOINTMENTS.

Chelmsford Union.—Edward H. Carter, M.R.C.S. Eng., L.S.A., to the Third District.

Easington Union.—Samuel Bright, L.R.C.S. Ire., to the Thornley District.

Great Yarmouth Parish.—Wm. E. Wyllys, L.R.C.P. Edin., L.R.C.S. Edin., to the Northern District.

Mansfield Union.—Wm. A. Stamford, M.R.C.S. Eng., to the Sixth District.

Skirlaugh Union.—Charles Soloman, L.R.C.P. Edin., L.R.C.S. Edin., to the Workhouse and the Skirlaugh District.

Wigton Union.—Harrison Mitchell, M.D. & C.M. Edin., to the Ireby District.

Wirral Union.—Francis Peirce, M.B. Trin. Coll. Dub., L.R.C.S. Ire., to the Upton District.

THERE have not been any fresh cases of small-pox in Llanfyllin for upwards of a month.

THE Medical Officer reported last week to the Fulham Board of Guardians that there was not a single case of small-pox in the parish.

THE Guardians of St. Marylebone have resolved to erect a Dispensary and relief station in York-court and East-street.

SMALL-POX ON BOARD SHIP.—The steamship *Somersetshire* was detained at Melbourne in quarantine a fortnight, owing to small-pox being on board.

COMMUNIST PRISONERS.—Amongst the first sixteen Communist prisoners to be tried are Jourde, a Medical student, aged 27, and Rastoul, a Physician, aged 45.

DEATHS IN PARIS.—The general health of the inhabitants of Paris is daily improving. Only one case of a choleraic nature is reported. The small-pox has almost, if not entirely, disappeared.

COUNT DE FLAVIGNY, the President of the Society for Succour to the Sick and Wounded, has awarded 100 bronze medals to English ladies who distinguished themselves, by their devotedness and intelligence, in the French ambulances.

ACCORDING to the reports of the District Medical Officers of Health of the metropolis, diarrhœa is much less prevalent in London than it was at this time last year. It must be remembered, however, that we have still before us a season which may give rise to many cases of this complaint.

THE Registrar-General has supplied a special report for the convenience of people leaving town at this season in search of health, with reference to the state of the forty-seven principal English watering-places. The report gives a table of the recent death-rates from all causes. It must be remembered, however, that the death-rate is by no means an infallible criterion of the health of any particular locality. There may be much sickness with little comparative mortality; and much mortality with little comparative sickness.

HYDROPHOBIA.—Elizabeth Foster, aged 10 years, residing with her parents at 16, East-street, Manchester-square, in March last was attacked by a stray dog in the street, rolled over, and very severely bitten in the arm. She was at once taken to the Middlesex Hospital, where her injuries healed in due course. A few days ago, however, symptoms of hydrophobia began to show themselves, and they rapidly became so alarming, that on Friday morning it was necessary to take her to the London University Hospital. When admitted she was in a perfectly rabid state. The poor girl died the same night.

GUY'S HOSPITAL.—MEDALLISTS AND PRIZEMEN.—At the examination of students in Medicine and its allied sciences, which took place on August 7, the following were the awards for 1870-71:—The Treasurer's Gold Medal for Medicine, George Davidson Deeping, Newark; the Treasurer's Gold Medal for Surgery, Henry Edward Southee, Canterbury. *Prizes.*—Third Year's Students: C. H. Golding Bird, Brunswick-square, London, first prize, £40; George Turner, Portsea, second prize, £35; Thomas Eastes, Folkestone, honorary certificate; Edmund Arthur Burgess, Bethnal-green, London, honorary certificate. Second Year's Students: F. Akbar Mahomed, Brighton, first prize, £35; George F. Masterman, Croydon, second prize, £30. First Year's Students: Arthur Henry Jones, Peckham, first prize, £30; Charles Edward Barnard, Tasmania, second prize, £25; Henry Clarke, Anerley, £10 10s., and William Harry Hansard, Epsom, £10 10s. (equal); Hugh Alexander Cookson, Stowmarket, honorary certificate; Thomas Simmons Morley, Barton-on-Humber, honorary certificate; Robert Neale Smith, Brighton, honorary certificate; Carlos Duran, Costa Rica, honorary certificate.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Lanka.—Messrs. Spottiswoode and Co., New-street-square, E.C.—price 6d.

Aston-cross, Birmingham.—We think it better to postpone our report of, and comments on, the coroner's inquest held last week at this place. Until the analysis by Dr. Alfred Hill is completed and put in evidence the case must necessarily be incomplete, and therefore it is undesirable to prejudge the verdict.

Honour.—The first Physician who was created a baronet was Sir Hans Sloane. This was the first hereditary honour ever conferred upon a member of our Profession. Sir Henry Halford was offered a peerage, but declined it, because he would "not be able to accept a fee." Sir Henry had large landed property, and could have sustained the character of a peer without continuing to practise as a Physician.

M.D.—The cane carried by Mead, referred to in an article on the Royal Academy in a late number of this journal, is now in the Royal College of Physicians, and may, on application to the urbane Secretary, be seen by any member of the Profession. This cane originally belonged to Radcliffe, who bequeathed it to Mead. It was subsequently in the possession of Askew, Pitcairn, and Baillie, the leading Physicians of their time. Mrs. Baillie, some short time after the death of her husband, presented the cane to the College. The arms of each of its possessors are on its handle. Dr. McMichael, for several years the Librarian of the College, was the author of a most entertaining little book, entitled "The Gold-headed Cane," which in reality consists of biographical sketches of the five above-named eminent Physicians.

Turning-points in Life.—Goldsmith being plucked by the examiners at Surgeons' Hall in 1758 is regarded by one of the ablest of his biographers as the turning-point in his career. Finding him not qualified to be a Surgeon's mate, they "left him qualified to heal the wounds and abridge the sufferings of all the world." While the door of Surgeons' Hall was shut upon him that day, "the gate of the beautiful mountain," in Mr. Forster's figure of speech, was slowly opening. The turning-point in the life of Smollett—that which made him an historian and a novelist—was probably his entering as a Surgeon's mate in the Royal Navy. This gave him time to read and opportunities of studying human nature in sailors. To the first we may have owed his history; to the second, certainly, his "Roderick Random."

ADVICE GRATIS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I have never been in India, and hope—with the help of Providence, "outfittiog," and exchanges—never to go; but, in the language of the first ruffian of melodrama, a time will come when the Bazaar at Cawnpore will be a poor substitute for Regent-street; bumping on a camel, or mounted on an elephant, instead of a broken-knee'd quadruped; when tigers, snakes, ants, and scorpions will cause greater annoyance than the homely cockchafer or the Norfolk Howard; and Cornelius Sullivan, the soldier-servant, who whiles away many a dull hour by thrashing his wife, laying down the law at the canteen, or concocting plans for robbing me, will be supplanted by a number of cut-throat scoundrels without any clothes on.

When the retirement amounts to a pound a day, my wild dream is to settle down at Cheltenham; there turn an honest penny by treating Indian dyspeptics—ringing the changes on bicarbonate of potash, quinine, dilute acids, and Cockle's pills. Should a penurious patient become troublesome, the plan will be to suggest further advice, change of air, or to insult the old nabob. If that fails, invite him to dine at Bangalore Villa, and at dessert pleasantly allude to cases of malignant scarlet fever and virulent variola visited that day. As to midwifery, when once the chance occurs, never will another case be attended; but stethoscope in hat, gum-lancet in waistcoat-pocket, driving in a buggy (violently reading the *Medical Times and Gazette*), and attending sick children might pay.

The pen was taken up to write on Indian diseases, but somehow the current of ideas runs in the direction of an introductory lecture. "Lamented colleague;" "old faces welcome the new;" "germ theory;" microscopes, endoscopes, and all the other scopes; varied with a dash of quotation out of Pye Chavasse, or Longfellow, or any other great poet.

That young bear, the sucking Practitioner, should be very careful about some points, little of themselves, but all-important in the competition of an over-stocked Profession. If he is not bred and born a gentleman, let him try and become one by only associating with such. He should dress becoming to the position as a member of a grave and honourable calling; his visits should be short, every word to the point, and no gossip. A kind, gentle manner consoles and cheers like the bright sun in the sick-room; and he should endeavour as much as possible to conceal from the patient the working of his mind; for the symptoms and tactics of to-day may be changed on the morrow. If a man dearly loves, and is loved in return by a healthy girl, let him marry early by all means; but if he takes this leap in the dark simply as a speculation—part of the stock-in-trade, to secure practice—he deserves to have a sickly wife, who, in the long hours of her husband's absence and the want of society, may repent her choice, and not be ready to welcome him with affection and sympathy at hurried meals. For the work never ends. Every other occupation has stated hours of rest; even the clergymen can take two or three pegs (as we say in India), feeling certain of being undisturbed at night; but we must ever be on guard—"*semper parati.*" A hard-working, temperate old Practitioner once said, "I have been up three nights at a labour, for which a guinea will be claimed and fought for in the county court; there decided against me, the patient swearing I was drunk."

When, after long anxiety, the battle has been lost, and we stand at the grave of the bread-winner of a family, the cherished wife, or the only passionately-beloved child, sorry comfort is it to think we did our best. Sadly we turn away from the mourners with one beautiful passage of the solemn burial service ringing consolation into our ears—"Be ye stedfast, unmovable, always abounding in the work of the Lord, forasmuch as ye know that your labour is not in vain."

I am, &c.

CHUTNEY CURRIE, M.D.

THE CHOLERA "PERFECT CURE."

Although to all appearances cholera may be on the advance towards us through Eastern Europe, and it is well, therefore, to be prepared with every appliance for the encounter with the enemy, we protest in the name of the Profession and common sense against the publication by lay papers of newly discovered and unfailing remedies for the disease. What possible good can result from the announcement by an evening contemporary, in its letter from Paris, that "Dr. Lisle says that he has cured twenty-one cases of cholera out of twenty-six by administering a solution of five parts sulphate of copper to 100 parts distilled water, about thirty drops, to which add ten drops of Sydenham's laudanum and 4 oz. of sugar and water. Dr. Drouet advocates a solution of castor-oil in collodion being applied with a brush to the abdomen. The mixture forms a waterproof film which prevents perspiration, and vomiting and cramps are instantly arrested"?

Such statements are worse than useless—they are absolutely harmful. Much as remains to be learned of the nature and treatment of cholera, this much is certain, that such remedies in the presence of the real disease will be found as ineffectual as any of the thousand-and-one other cures which have been tried and found wanting. We have some tolerably correct ideas as to the prevention of cholera by sanitary measures, and it is to these that the public attention should be directed, instead of being distracted and misled by announcements of alleged remedies.

COMMUNICATIONS have been received from—

Dr. J. J. RIDGE; Dr. KRAUS; Dr. SPIEGELBERG; Mr. A. WAIGHT; Mr. S. RIDDELL; Mr. WHITTLE; Mr. J. MAGRATH; Dr. HEYWOOD SMITH; Dr. THORNWOOD; Dr. BUMAN; Dr. MORELL-MACKENZIE; Dr. DAY; Professor HUMPHRY; Dr. NEILD; Mr. MARCUS ALLEN; Mr. STOCKER; Dr. W. NEWMAN; Mr. J. CHATTO; Dr. LIONEL S. BEALE; Dr. JOHN MURRAY; Dr. HOGG; Dr. MOXON; Mr. H. MORRIS; Dr. J. H. BUCHANAN; Dr. COLLYER.

PERIODICALS AND NEWSPAPERS RECEIVED—

Nature—American Journal of Medical Science, No. 123—The Preston Guardian—Edinburgh Medical Journal, August—Saunders's Newsletter Pharmaceutical Journal—Indian Medical Journal—Kentish Express and Ashford News—Bombay Gazette—L'Union Médicale—Gazette des Hôpitaux.

APPOINTMENTS FOR THE WEEK.

August 12. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

14. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

15. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

16. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

17. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; West London, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

18. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

VITAL STATISTICS OF LONDON.

Week ending Saturday, August 5, 1871.

BIRTHS.

Births of Boys, 1040; Girls, 1036; Total, 2076.
Average of 10 corresponding weeks, 1861-70, 1971·6.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	723	659	1382
Average of the ten years 1861-70	804·1	770·8	1574·9
Average corrected to increased population	...	...	1732
Deaths of people above 90	...	...	...

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561189	4	4	8	3	6	1	2	1	30
North ...	751668	46	1	7	...	7	...	5	...	53
Central ...	333887	2	2	2	...	3	1	1	...	23
East	638928	9	4	2	...	5	2	...	...	61
South	966132	26	7	5	2	4	2	2	3	58
Total	3251804	87	18	24	5	25	6	10	4	234

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·747 in.
Mean temperature	60·3°
Highest point of thermometer	80·5°
Lowest point of thermometer	46·8°
Mean dew-point temperature	50·1°
General direction of wind	S.W. & W.S.W.
Whole amount of rain in the week	0·23 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, August 5, 1871, in the following large Towns:—

Borough, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1871.*	Persons to an Acre. (1871.)	Births Registered during the week ending Aug. 5.	Deaths Registered during the week ending Aug. 5.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3263872	41·8	2076	1382	80·5	46·8	60·3	15·72	0·23	0·58
Portsmouth ...	113450	11·9	78	33	...	...	...	...	0·21	0·53
Norwich	80533	10·8	42	33	79·0	46·0	59·7	15·39	0·04	0·10
Bristol	183298	39·1	118	83	...	...	...	...	...	...
Wolverhampton ...	68476	20·2	68	23	75·4	44·9	57·2	14·00	0·08	0·20
Birmingham ...	344980	44·1	278	119	73·8	47·0	57·8	14·33	0·41	1·04
Leicester	95882	30·0	79	39	80·2	46·0	58·6	14·78	0·35	0·89
Nottingham ...	86929	43·6	76	30	77·4	45·5	58·3	14·61	0·11	0·28
Liverpool	493649	96·8	378	263	72·7	52·2	58·5	14·72	0·10	0·25
Manchester ...	356099	79·4	244	192	...	...	...	...	...	...
Salford	125422	34·3	92	58	75·5	43·3	56·5	13·61	0·10	0·25
Bradford	146987	22·3	117	56	73·0	46·8	58·6	14·78	0·03	0·08
Leeds	260657	12·1	196	115	74·0	46·0	56·6	13·66	0·15	0·38
Sheffield	241507	10·6	191	106	76·0	45·0	58·6	14·78	0·01	0·03
Hull	122266	34·3	76	55	...	...	...	...	...	...
Sunderland ...	98797	29·9	45	72	...	...	...	...	...	...
Newcastle-on-Tyne	128677	24·1	107	74	69·0	47·0	56·7	13·72	0·00	0·00
Edinburgh	201728	45·6	149	108	69·0	44·0	57·2	14·00	0·10	0·25
Glasgow	479227	94·7	353	272	68·5	46·5	57·2	14·00	0·82	2·08
Dublin (City, etc.)	310565	31·9	138	75	73·4	46·8	60·4	15·78	0·13	0·33
Total of 20 Towns in United Kingd'm	7204001	33·8	4892	3188	80·5	43·3	58·1	14·50	0·18	0·46

At the Royal Observatory, Greenwich, the mean reading of the barometer in the week was 29·75 in. The highest was 30·02 in. at the end of the week, and the lowest was 29·48 in. on Sunday morning.

* The figures in this column are the unrevised numbers enumerated in April last, raised to the middle of the year by adding 1-40th of the rate of increase which prevailed between 1861 and 1871. As the population of Dublin and its suburbs showed a decline between the Censuses of 1861 and 1871, the enumerated number in April last has been inserted above for that city, the population being assumed to be now stationary.

NOTES OF A

CLINICAL LECTURE ON FRACTURE OF THE PATELLA.

By JONATHAN HUTCHINSON, F.R.C.S.,
Surgeon to the London Hospital, the Blackfriars Hospital for Skin Diseases, and the Royal London Ophthalmic Hospital.

[Reported by Mr. E. NETTLESHIP.]

GENTLEMEN,—The patient before us presents a good example of the ordinary fracture of the patella. His right patella has been broken across transversely below the middle, so that the upper fragment is larger than the lower one. In this case the disproportion between the two fragments is greater than usual, the lower portion forming not more than a fifth of the bone. He has now been in the Hospital several weeks, and the two portions are very close together, so that he will have, in all probability, a very useful limb. When he first came in there was a considerable interval between the fragments, and his knee was swollen by effusion. The effused fluid was absorbed after a few days' rest in bed, and we then put his limb on a straight back-splint and applied strips of plaster from below the lower fragment upwards, so as to fix this portion of the bone, and other strips from above the upper fragment downwards, so as to bring this portion of the bone downwards to the lower fragment. The limb has been allowed to lie flat on the bed.

I do not purpose now to give you a complete account of fractures of the patella, preferring, rather, to make some remarks on the most important points in the kind of fracture before us, under the headings of *Cause of Separation of the Fragments—Treatment—Mode of Repair.*

In most patients suffering from transverse fracture of the patella, if we examine the bone several hours or a day or two after the accident, we find the fragments separated from one another by a considerable interval, from a quarter of an inch to an inch. We also find, most likely, considerable effusion into the joint. At first thought we shall, perhaps, be inclined to ascribe the separation of the fragments to contraction of the rectus muscle; but that it is really due to quite another cause will be apparent when we examine a little further. We shall probably find, in the first place, that the rectus muscle is not in a state of contraction, or that it becomes so only under the pressure of the fingers or at the patient's will. It is true that muscles possess a certain small amount of *elasticity* in addition to their *contractility*, and this elasticity, when unopposed, will tend to draw the fragments apart; this force is, however, comparatively unimportant, and for practical purposes it may be safely neglected. We must bear in mind that the patella is firmly attached by its entire circumference to tendinous or ligamentous structures of great strength. Now, when the bone is broken across the fibrous attachments on each side, the tendons of the vasti remain entire, and they are amply sufficient to hold the portions of the patella in place, and prevent their separation, so long as there is no distending force exerting pressure from within. Soon, however, fluid is effused by the synovial membrane, the joint is distended, and what was before a mere fissure through a bony part of the joint-capsule becomes a wide gap. This is the state in which we generally find the knee-joints of patients admitted with fractured patella. In a few cases, however, scarcely any effusion takes place, and it is precisely in these rare cases that the broken portions of the patella never become separated to any appreciable extent. Those cases in which the joint does not become distended, and the fragments are not separated, are the most favourable of any as regards good union; the case will be unfavourable just in proportion to the *amount* and *duration* of the effusion—*i. e.*, the extent and duration of the separation of the fragments. The further the fragments are apart the more difficult will it be to bring them together, and the longer they remain separated the less likely are they to unite by bone.

You will readily see, then, that the principles of treatment are to prevent effusion if it has not occurred, to favour absorption of fluid which has been poured out, and to bring the fragments of the patella into close and permanent apposition.

It is unnecessary that I should go into detail on any but the method of carrying out the last-named principle.

The plan which I invariably adopt, and which has been carried out in the case before us, is to put the limb on a straight back-splint, and by that means bring the lower fragment as high as possible, and by pieces of cross-strapping maintain it there; then to bring down the upper fragment by strapping and firm bandaging as near as may be to the lower fragment, and keep it there by readjusting the strapping as often as it gets at all loose. Many Surgeons after doing all this proceed further to elevate the whole limb into the air, with the intention of shortening the distance between the origin and insertion of the rectus muscle. I never adopt this practice, because I believe it to be quite useless, and very uncomfortable to the patient. The advocates of the elevation plan defend it by appealing to a constant state of partial contraction of the muscles, which is supposed to be mainly instrumental in causing the separation of the fragments; and they assert that by lessening the distance between the ends of the muscle they diminish the consequence of this contraction.

I do not for a moment deny that the origin and insertion of the rectus femoris muscle are brought nearer together by elevating the thigh, or by raising the body. I assert, however, that the muscle when left to itself is not in a state of constant contraction; but, on the contrary, that it very soon relaxes completely, and that, therefore, any arrangement for shortening the distance between its attachments is uncalled for. I repeat, also, what I have already mentioned, that it is not to contraction of the rectus but to synovial effusion that the separation of the fractured portions of bone is due, and that it is, therefore, useless to make any special provision for insuring the relaxation of the muscle. I am even of opinion that elevation of the limb may be injurious, for we place it in a constrained position, and I think that muscles when in positions of discomfort are more likely to take on irregular and violent action than when allowed to rest in their ordinary postures.

A few words as to the mode of repair in transverse fracture of the patella. I am inclined to think that bony union is not so rare as it is supposed to be. I have dissected one specimen of union by bone, and I have seen several cases in which I had not the slightest doubt that bony union had taken place. The last case that I discharged from the Hospital was, I believe, one of this kind. I have quite lately seen a gentleman who was treated by his brother, a Surgeon, twenty years ago, for fracture of the patella, and whose limb has during that time been in every respect as good as it was before the accident. There is in him a groove across the patella marking the seat of fracture, but on examination I felt no doubt whatever as to the repair having been by bone. The most favourable cases, as I have before mentioned, are those in which no effusion occurs, or in which the effusion is comparatively slight, and disappears rapidly, and which are treated by prolonged rest in bed, these being the cases in which there is little, if any, separation of the fragments. When the fragments of the patella are separated widely, and for a long time, then bony union is very unlikely to occur.

ORIGINAL COMMUNICATIONS.

ON RHEUMATISM.

THE RHEUMATIC POISON: WHERE AND WHAT IS IT?

By J. JAMES RIDGE, B.A., B.Sc., B.S., M.D. Lond.

(*Continued from page* 187.)

THERE are three or four other arguments which have been adduced to prove the existence of a *materies morbi* in rheumatism which require examination.

d. It is said that "the peculiar character of the inflammation" is a proof of the specific nature of the cause. The advocates of this view ground their opinion on the well-known fact that the inflammation in acute articular rheumatism seldom terminates in suppuration or gangrene. The language which many of them have employed would lead us to imagine that there is, or that they think there is, some hard-and-fast line of distinction between "rheumatic" inflammation and "common" inflammation. They seem to consider them as two distinct diseases, either of which may affect an individual. And surely this ought to be the case if a special poison is present in the former which does not exist in the latter. On the other hand, there is the view which regards inflammation as the same action under all circumstances, and which considers the particular termination to be far more, if not altogether, influenced by the peculiarities of the tissue affected, and by the hereditary or acquired constitution of the individual, than by the cause of the inflammation.(a)

(a) Of course the immediate influence of traumatic causes must be excepted, such as eschars from fire, etc.

I admit that in pyæmia we have an example of a special cause influencing the termination towards suppuration, and it might be supposed that another poison, the rheumatic, might influence the termination away from suppuration. In answer to this, I would remark that there is nothing so remarkable in a subcutaneous articular inflammation *not* suppurating as to require a special explanation; the explanation is rather required when such inflammations *do* suppurate. We see cases of "common" articular inflammation terminating by resolution every day, under circumstances also—namely, with lesion of texture—when we might expect suppuration to occur. I allude to the legion of sprains, dislocations, fractures near and even into joints; yet how rarely do these cases end in suppuration! Further, when such suppuration does occur, when it is not due to the severity or peculiarity of the lesion, do we not see in that evidence of constitutional tendency to suppuration? We are accustomed to associate struma with such a tendency. Why? Because we see a simple arthritis—say of the knee—produced by cold or a blow proceed to ulceration of cartilage and disorganisation of the joint by pus; whereas, the same kind of inflammation in ordinary persons, set up by the same causes, after a while, if the lesion is not too severe, generally subsides. Why should we regard the latter to be specific inflammation, while the former is not? No one does so; and yet this very thing is done with regard to rheumatic arthritis.

Now, it is well known that, though uncommonly, rheumatism does sometimes terminate in suppuration. Sir Thomas Watson(b) notices that the inflammation of the synovial sacs may be of such intensity as to end thus; that in other cases the areolar tissue round the joints may become affected and suppurate; and that, if the serous tissues within and round the heart are attacked, the products of the inflammation are just the same as when inflammation of the same textures of the common kind is anyhow produced. This being admitted, we must conclude that the rheumatic poison, if it exists, does not interfere with the process of suppuration, since, when present most intensely, such an event is more likely to occur. Further, it may be the exciting cause of suppuration under circumstances which show that the event is influenced by the health-status of the individual. Thus the probability that pus will be formed is much increased if the rheumatism occur in scarlatina. This, no doubt, is due to the increased tendency to pus-formation in this disease. Yet this tendency is greater as regards mucous membranes and parenchymatous tissues, and hence such a result of the rheumatic inflammation is not as frequent as we might have expected.

As has been casually noticed above, the character of the tissues affected to some extent accounts for the diminished frequency of suppuration; for, *cæteris paribus*, fibrous tissues are less prone to suppurate than the other tissues, which are morbidly affected by cold. Therefore, when cold does affect them, we ought to be prepared to expect greater resistance to suppuration.

Again, the hereditary character of rheumatism is well established. Now, it is quite as easy to suppose that a person can inherit a tendency for serous and fibrous inflammations to resolve as to suppurate. The former would express a higher grade of health than the strumous constitution. As regards the skin, etc., we already know of such hereditary differences, The flesh of some people is popularly known as "good healing flesh"—*i.e.*, there is not a very great tendency to suppuration; the fibrine exuded is firm, healthy, and easily organised. On the other hand, the flesh of some is just the reverse. And these peculiarities are transmitted to children with the same caprice as other hereditary diseases or qualities, and as rheumatism itself. I do not assert that such a state of constitution is all that is necessary to predispose to rheumatism—if that were true it would follow that all healthy individuals were specially liable to rheumatic affections; but a person with a healthy constitution *is* more liable to rheumatism than to the manifestations of struma. This will readily be granted. But I believe that it is also, as a general rule, true, that acute rheumatism is more common among non-strumous or slightly strumous individuals than among those in whom the strumous constitution is strongly marked. In the latter a cold is more likely to set up intense and suppurating action in one joint, while the rest escape. Such an action is not called rheumatic; but why should it not be? If, it is said, "Because it ends in suppuration and disorganisation of the joint," the reasoning is illogical. Thus, "Rheumatism is a specific disease because it does not usually terminate in suppuration. All inflammatory actions which have suppuration as their usual or frequent event (*e.g.*, strumous joint affections, even though excited by cold) are 'common inflammations,' and *vice versâ*. Therefore, those numerous joint affections which are excited by cold, yet do not usually or frequently end in suppuration, are peculiar and specific, and they are rheumatic; therefore rheumatism is a specific disease—*q.e.d.*"—to everybody's satisfaction.

I must here briefly refer to Dr. Richardson's experiments with lactic acid. He injected this substance into the peritoneum of animals, and found, on killing them after some time, evidences that endocarditis had occurred, while there was no trace of peritonitis. Dr. Gull remarks(c) "such experiments appear to me to prove only this, that the acids named (lactic and acetic), entering the blood, may cause endocarditis and some other pathological changes simulating those of rheumatism; but I cannot recognise in them the rheumatic state as I am acquainted with it at the bedside." This must be the conclusion we should arrive at. It may be true that lactic acid produces the same changes in the heart that are found in rheumatism; but, even if all the clinical phenomena were the same, which they are not, it would be illogical to conclude that lactic acid is the cause of rheumatism. If all A is B, it does not follow that all B is A. Endocarditis may be caused by lactic acid; but this is not, therefore, the cause of every endocarditis. Lactic acid has never been proved to exist in the blood specially in rheumatism, and so the whole falls to the ground.

We may therefore conclude, I think, that no peculiarity of cause has been demonstrated to exist, and that the peculiarity of the course of the disease, if there really is any, is sufficiently accounted for by the previous constitution of the individual, the usual circumstances of the patient, and the position of the inflammation. We are not compelled to assume the presence of any *materies morbi*, and without such compulsion it should not be done.

c. "The peculiar character of the accompanying fever." This stands in close relation with the preceding. Sir T. Watson, in the lecture before referred to, says—"The severe inflammatory fever has no tendency to degenerate into a typhoid form, and that is a striking feature in the complaint. Neither is the intellect affected except when carditis takes place. . . . With this exception, we do not find patients in acute rheumatism delirious. Throughout all this febrile disturbance there is no coma, no marked trouble of the stomach or bowels, no vomiting, no diarrhœa, no petechiæ, no aphthæ, no sordes about the mouth—all of which are of ordinary occurrence in the course of common continued fevers." This he explains by the fact that the poisons are different in origin and in kind.

Now, we may rely on the fact that the actual poison of rheumatism (if it exists) has never been isolated by any chemical process. Such being the case, a supporter of the poison-theory might point to these continued fevers as analogous, for in them the poison which doubtless exists has never been isolated. But all the invisible poisons which we know of, whether invisible germs external to the body, or the no less invisible and unknown septicæmic agents derived from pus, etc., within it, produce those typhoid symptoms which Watson mentions, the recognised results of blood-poisoning. These continued fevers, therefore, furnish no argument in favour of an invisible poison in rheumatism on the ground of analogy, since the analogy confessedly fails in one of the most characteristic effects of all the recognised invisible poisons. On the other hand, if the poison be grosser, and produce its effect chemically, or by reason of its accumulation in the blood, as the supporters of the acid-theory maintain, we surely have a right to expect that such poison should be visibly demonstrated. But if this dilemma is avoided by asserting the peculiar nature of this invisible *materies morbi*, I submit that this is no explanation, and certainly gives no guidance to the correct treatment. It is a theory, therefore, which at the most can only be admitted when every other fails.

It is well known, however, that the typhoid condition is by no means incompatible with rheumatism, and not only that, but is a direct result of it, and that even more frequently than suppuration. Facts, if anything, therefore, seem to show that usually there is no blood-poisoning in rheumatic fever, but that when it occurs (secondarily) the usual symptoms present themselves. Such a result may also be produced by causes external to the essential cause of rheumatism acting previously to this, and simultaneously with it. This subject requires more extended notice than my space now permits.

(b) "Lectures on the Principles and Practice of Physic," vol. .

(c) Loc. cit.

I must now briefly refer to some other arguments which have been brought forward.

f. "The symmetrical development of the joint-symptoms." The *materies morbi* is supposed to roam about in the blood seeking which joints it shall attack. If, for instance, one knee is attacked, it is said that local circumstances have rendered the joint obnoxious to the poison, and that the fact of the other knee often sharing in the trouble is a proof of the correctness of this explanation, since no joint is so likely to resemble the one knee-joint in its local condition as the other. Hence it is thought probable that all the joint-symptoms are due to the circulation of morbid blood.

This theory, no doubt, explains the frequent symmetry of the disease very plausibly. But it is not of much value as an argument, since it does not establish the presence of a poison. All the symmetry can be explained with equal plausibility another way—namely, by the symmetrical arrangement of the nerve-supply, as I hope hereafter more particularly to show. I grant that if the existence of the poison had been demonstrated, this argument would powerfully confirm its existence, but then we should not require its support.

g. "The shiftings of the disease from one joint to another." Here, also, the symptom is attributed to the poison pouncing down first on one part and then on another. This explanation is even more vague than in the preceding case. Supposing we saw the poison, which we do not, we can give no reason why it should thus transfer itself bodily from one joint to another. The inflammation set up in a joint has been supposed to be the consequence of a process of elimination in the part. Now, if a knee-joint is thus eliminating a definite quantity of poison which has wandered into the blood, one would imagine that the purity of the blood would be thereby increased. If that is so, I cannot understand how the poison can be supposed to leave a favourite nidus to attack a comparatively healthy joint. We are not now considering the case of an accession of poison to the blood, but of its shifting about. It has never been suggested that the process of inflammation repels the poison; on the contrary, it renders the joint more liable to attack. I think, then, it may be fairly demanded that some rational explanation of this extraordinary occurrence should be given before we are asked to take it as a proof of the very existence of a poison. Some may say that the fresh joint is attacked by a fresh detachment of poison, and that the subsidence of the first inflammation is a coincidence. But I do not doubt that by the exercise of a little ingenuity, *plus* imagination, most diseases could be explained in a similar way. We may take any symptom of any disease, and say, "a poison does this," and "the *materies morbi* acts thus," and so long as we are expected to believe it until we can prove the negative, we may well accept it humbly. If, however, I can establish any other theory capable of explaining the symptoms even tolerably well, I should feel myself justified in neglecting such a universal explanation of every difficulty. I do not forget the cases which Dr. Fuller mentions, where alarming symptoms occurred on the sudden subsidence of the inflammation in one part till another was attacked: these must be explained, and, I believe, can be, without any resort to the above hypothesis.

As I have now mentioned Dr. Fuller, I will make two or three remarks on the arguments for the lactic-acid theory, and against any other, which he brings forward in his well-known work on rheumatism. Some of these have been noticed under the preceding heads. But he seems to consider that the only thing he need do to prove his point, is to show that rheumatism is not a local disease (and he puts a very strict limit to the term local), and therefore must be a constitutional disease. He adds other positive arguments to show its constitutional origin, and then he considers it proved that there must be a *materies morbi*. He all along proceeds on the supposition that all the symptoms, as he asserts of particular ones, are "under any other supposition utterly inexplicable." But though, as regards the presence of lactic acid, "seeing" might be "believing," he does not venture to attempt to show it to us. His objections to cold as the cause of the disease are beside the mark, because he takes great pains to point out that some of the effects of cold are incapable of producing the affection, while the way in which, as I believe, it does do so is quite unnoticed.

There is just one more argument in favour of the acid-theory which, I confess, I am almost ashamed to mention. But I am afraid it is one which, more or less unconsciously, will influence the judgment of some *practical* men. It is this:—

h. "The alleged cure by alkalies"—used, *i.e.*, as neutralisers of the poison. Alkalies neutralise acids. Alkalies are administered in rheumatism, and the patients recover, while the urine becomes neutral or alkaline. Therefore, the alkali has neutralised an acid which maintained the morbid action. There is, it is well known, a conviction, held by no mean authorities, that the alkaline treatment has little or no influence in shortening the disease. Apart from this, if we allow that alkalies do act beneficially, of course it is possible they can do this otherwise than by their neutralising power. And surely, if such enormous quantities of alkali as are sometimes given barely suffice to neutralise all the acid, we might fairly expect to get the lactate or other salt demonstrated in the blood or elsewhere, at least in some minute quantity. Yet, if we inquire for it, echo answers, "Where?"

The above examination seems to show that the prevalent theory of the nature of rheumatism rests upon a very unsound basis. Its true pathology is not likely to be discovered so long as such an incubus remains upon the mind; we must cease to regard it as a disease altogether *sui generis* if we would discover its proper place. At all events, we must not do so unless obliged or in despair. But this point, I trust, has not yet been arrived at. If the dust which the prevalent theory throws into our eyes can be successfully expelled, I believe it will be seen that rheumatism is as much intertwined with, or passes into, other diseases, as, for instance, bronchitis; and, by studying these natural affinities, it seems to me that a much more correct notion of its pathology can be obtained. In so doing we should find still further arguments to negative the idea of a poison, acid or otherwise. I hope to be able to notice some of them in a future paper.

(*To be continued.*)

YELLOW FEVER IN THE RIVER PLATE.

(*Supplementary.*)

By WM. NATHANIEL HIRON, L.R.C.P. Lond., M.R.C.S. Eng., L.S.A.L.;

Admitted to practise in Monte Video; ex-Surgeon-Major Argentine Army on the Medical Staff of the Popular Health Commission during the Epidemic.

THE administration of calomel pushed to ptyalism has been vaunted in the daily papers as an excellent method of treatment in this fever, and an exemption from urinary suppression in those treated in this mode has been proclaimed. Since this symptom is the essentially fatal one in the disease, it would be well if facts enabled one to announce any remedy as preventive. My own experience, however, obliges me to condemn any specific use of mercury. It has seemed to me, however, of great advantage in many cases as a purgative, and something more, also, probably from its special soliciting effect upon the entire glandular system of the digestive apparatus; but when it has produced any degree of ptyalism, it has caused me regret—in one case it certainly increased the jaundice.

I have to rectify my statement with reference to the epidemic of last year (1870). The disease was not confined to an hotel, but to the "block" of houses of which the hotel was one, and to persons from different adjacent parts who had communicated with the infected centre. The outbreak existed from the end of March to the end of June. The number of deaths has been stated at 100; in the lazaretto thirty-two persons were received during the period.

I have good evidence of the importation of the disease this year (1871) from patients of mine residing in the block in the San Telmo parish where the disease broke out. A sailor came ashore with the fever to this port, and then it spread gradually about the same neighbourhood. Persons residing in the "block" affected last year assure me that this *locale* has scarcely suffered this year from the outbreak, although adjacent "blocks" have been sufficiently attacked; yet posteriorly to the appearance of the disease in the distant quarter of San Telmo—a part a mile distant at least from the infection-spot last year. My friend Don Ignacio Pirovano—a very distinguished native Surgeon at the Hospital de Hombres—gives me his testimony in favour of the value of antiperiodic doses of quinine for calming the neuralgic pains, which are such distressing symptoms in the disease.

Thinking on the natural history of the fever we have combated, and the asserted "single paroxysm" character of the disease, I desire to offer the following observations. Following descriptions we read of three stages, thus:—1st, febrile; 2nd, apyrexic; 3rd, adynamic; and I would express my ideas on the disease as being—1st stage, attack; 2nd stage, remission; 3rd stage, abortive repetition. Or, better, thus:—1st stage, attack, then interval, remission; then 2nd stage, attack aborting from

adynamic impotency to carry out the phenomena. The liver is described as being in a condition of acute fatty degeneration; it seemed rather to me to be: 1st, sanguineous; and 2ndly, biliary congestion. Its colour is not the buffy of a fatty organ, but a true rhubarb yellow—biliary colour.

In this month's "Review of the Buenos Ayres Medical Association" is the letter of the Medical Officer of the Port of Monte Video, stating his opinion of the nature of the disease which had then recently appeared in Buenos Ayres. Appended to it is the following document:—

"I, the undersigned, Doctor in Medicine and Surgery, at the request of Dr. Garviso, Medical Officer of Health of the Port of Monte Video, give the following information:—

"Through a person in whom I have complete confidence, who has come from Paraguay, I have learnt that, when there existed in that city that which was called yellow fever, Dr. Joaó Adriaó Chaves, Chief Medical Officer of the Brazilian Marine Hospital in Asuncion, one who understands what is true yellow fever, was of opinion that the existing disease was only 'pernicious remittent fever,' and not the epidemic and contagious yellow fever. "Francisco M. d'Aranjo.

"Monte Video, February 7, 1871."

There is also in the "Review" a statistical list of the mortality, which gives 13,727 as the total number of deaths from the epidemic between January 27 and June 1. I am still, however, of opinion that my estimate, that nearly 20,000 persons perished in the outbreak, is nearer the truth.

Speaking of the fever, the "Review" says—"It is not infrequent to meet with cases of diarrhœa amongst convalescents from the disease, and, in many, abscesses in different parts of the body."

Dr. Wilde, a distinguished native Physician, in a letter to the newspaper *La Republica*, dated February 22, 1871, thus summed up the affair of the denials that the Buenos Ayres fever was specific yellow fever:—"It follows, then, that of all those who have denied that this fever exists, not one has found himself in presence of a patient attacked by it."

So great was the dominion of the epidemic in this city during a certain period, that its organs sallied daily from the press, and the "Bulletin of the Epidemic" and the "March of the Epidemic" well employed the *gamins* for some time.

The municipality are said to have disoccupied the house first affected in the city. It is to be regretted that preventive measures were not carried out to a much further extent. The only way to extinguish an epidemic naturally is to separate every affected person, house, or district entirely from the rest and healthy parts. A real advance will have been made when such a plan is thoroughly carried out without consideration for social position or personal convenience.

My own estimate that about 20,000 persons perished in the plague is based upon considerations of numbers—the number stated to have fled, those remaining, the probable number unattacked, the natural mortality of the disease, the effect upon mortality of Medical attention or assistance. Other statistics only rest on probabilities, except the official, and that is too improbable.

Dr. Newkirk, who was at Asuncion during the plague, assures me that the mortality was small, and that quinine was very generally and extensively used. He believes, too, that quinine was prophylactic, and that its continuous use in a healthy person during an epidemic caused any disease that showed itself to be mild and tractable. The denial that the disease was yellow fever in Paraguay is said to have arisen from the desire of the Brazilians to disclaim the odium of having imported such a pestilence there. Amongst them quinine was largely employed.

In reference to a statement I read, that "the febrile stage furnished as a rule no extreme heat of body" (Essay on Yellow Fever issued by the United States Sanitary Commission), I must say that in the fever I observed the heat of the body was generally pungent and the stage generally well marked. Where it was not so, it was always of unfavourable augury. A gentleman of my acquaintance who was attacked in the epidemic of 1858 suffered again this year.

Professor Murray writes in the *Argentine Pharmaceutical Review*:—"It is needless to say that the fever was first imported in 1857 from Monte Video; the second time, in 1870, from Rio Janeiro, where it remained localised in a small radius about the Rome Hotel. . . . It is known that some of the Paraguayan prisoners who returned from Brazil to their country last year had the fever, and that many of them died. There is no doubt that they carried the germs of the disease from Brazil. . . . Afterwards we learned that the disease had invaded the town of Corrientes, and that it was very fatal, from want of assistance the mortality ascending, it is said, to 25 per cent. of the entire population. . . . Nevertheless, the authorities here did nothing, a quarantine only existing in name. . . . We may be perfectly certain that the disease has been imported into this city, since it began in the parish of San Telmo, where, according to general report, the person who came sick from Corrientes went to lodge."

The following facts have come to my knowledge:—Of eleven *practicantes* (dressers) of the Hospital de Hombres, eight took quinine in doses of three grains daily; all these had fever of a benign form. Three took no quinine; these had the fever very severely, and one died. The evidence of a prophylactic influence is another proof in favour of my idea of the nature of yellow fever.

I desire to express my great indebtedness to the authorities of the lazaretto of the city; to the Physician, Dr. Don Pedro Mattos, and to his adjutants, Señors Doncel, Gil, and Scherer, for the exceeding courtesy and warm friendship they have ever shown me. I rejoice, too, to read the just tribute paid by the English Chaplain of Legation to this institution, which so well performed its duties to all nationalities.

I have tried to draw attention to the fact of there being a period of remission in specific yellow fever between the first and third stages. The third stage appears to me an intensification of the first, in that there is not only an absence of fever, but a greater expression of such a pyrexic state in adynamia. Still arises the question whether the bleedings of the third stage are not the expressions of local congestions, relieving themselves at the point elected from impotency of the capillary system, to arrest sanguineous loss. The remarkable effect of the ergot of rye in restraining these losses lends colour to the idea.

The influence of quinine to arrest malarious phenomena is generally explained by asserting that it is an antidote to the poison in some such way as antidotes are understood in chemistry. Rather would it seem to me that quinine in all these diseases is an antidote to the effects of the poison on the system. Its prophylactic action seems more to prove that, as a fortifier of the nervous system, it renders us less liable to succumb to the malarious poison.

The malarious poison evidently produces a profound impression on the nervous system, as its primitive expression or primary effect; undoubtedly, the essential poison of yellow fever produces also its primary effect on the nervous system, and in this allies itself with the malarial poison, and thus far is like it; and for the effects of both miasms quinine may be a remedy, although their essence may mutually differ in intimate nature, addressing itself to the results of the poisoning, and not to the poison itself; yet its effects are similar—so the nature of malarial and yellow fever poison may not be too different—a question of intensity, perhaps, only such an intensity as shall imply portability and tenacity of existence in the poison. Attending to the prominence of nervous phenomena in these diseases, it would be quite philosophical to entitle them nervous fevers—fevers whose notable effects are lesions of innervation.

The following statement in Dr. Metcalf's essay for the United States Sanitary Commission well exhibits the importance of studying the connexions between the different forms of fever:—"In proportion as countries previously malarious are cleared up and thickly settled, periodical fevers disappear; in many instances to be replaced by typhoid or typhus." I believe Dr. Oldham denies the existence of malaria, and attributes its proclaimed effects to be simply the results of chill. I have not seen his work, but hope to be able to obtain it. Such an idea was very present to me during my military service in Paraguay. I have previously stated that the Paraguayans call their remittents colds, and often cure them with such simple remedies as suffice for a common cold; still, I cannot help believing that there are malaria—miasms—specifically affecting the constitution of dwellers amongst them, and giving to all diseases occurring in such localities a particular impress of paludism; my idea rather being that the common cold in a malarious district is not different from that occurring in a non-malarious locality, except in that it is produced in a malarious constitution, and thus is so different that it appears another disease.

The newspaper *La Republica* publishes a mortuary sheet, in which former statistics are amended, and the total number of deaths stated at 17,084. I am told that these data are obtained from the municipal authorities. Their only merit is a greater approach to correctness than the former list. More one cannot say of them. Some of the statements in this publication induce me to add a few more observations:—

"Three hundred and fifty gravediggers respected by the fever." The cemeteries are situated on the outskirts of the population. Coffins were exposed for many hours before being interred, from the press of work.

"Seventy-two deaths in one conventillo." Lodging-houses; fever dens.

"Mustard at 10s. a pound." Mustard baths and sinapisms excellent.

"The president flies." A gross calumny. Mr. Sarmiento, although naturally residing outside, came regularly to the city during the worst of the epidemic. "Medical men bolt." "The sick all *condemned* (*sic*) to be sent to the lazaretto." The best of measures, unfortunately not fulfilled. "Provincial government at its post." It appears that the disease has existed in the city for a period of six months, the first half of this year 1871; fortunately we are now in mid-winter, and may hope that, as heretofore, the disease will be thoroughly extinguished.

Buenos Ayres.

REPORTS OF HOSPITAL PRACTICE

IN

MEDICINE AND SURGERY.

GUY'S HOSPITAL.

For the notes of the following cases we are indebted to Mr. Donald Hood, M.R.C.S., L.R.C.P. :—

COMPOUND FRACTURE OF TIBIA AND FIBULA.

(Under the care of Mr. BIRKETT.)

J. F., 48, scaffold builder, a healthy, strong, and temperate man, of medium height, was knocked down while unloading a barge by a waggon, the hind wheel passing over his left leg. Admitted June 16, having a compound fracture of the tibia and fibula in the lower third. There was a small wound on the inner side, without much bleeding or displacement of bones. The wound was at once covered with pieces of lint soaked in a mixture of carbolic acid ʒiij., and tinct. benzoini co. ʒvj., and the leg placed on a back splint.

17th.—A good deal of swelling of the limb, but little or no constitutional disturbance. Complains of pain in the calf of the leg.

July 4.—Two side splints applied, the inner with interruption. Progressing well. Wound healed.

28th.—Splint taken off. Leg in good position; one-sixth of an inch shortening. Put up in gum and chalk.

This case did well throughout.

COMPOUND FRACTURE OF RIGHT HUMERUS.

(Under the care of Mr. BIRKETT.)

W. L., 35, fitter; healthy; well nourished; of temperate habits. Fell from a scaffold twenty-seven feet high. Does not know whether he struck anything in his fall. Picked up unconscious, and brought to the Hospital in that state. Admitted June 19, under Mr. Birkett, with a compound fracture of the right humerus about the junction of the lower with the middle third. Remained unconscious about six hours. He cannot describe how the accident happened. There was a wound on the inner side of the arm, about two inches above the inner condyle; but little bleeding. This was covered at once with lint soaked in carbolic acid and tinct. benzoini co., and the arm placed on a right-angled inside splint with interruption.

21st.—Doing well.

24th.—During the night had severe rigors and diarrhœa. Complains of intense headache, pains, thirst, and general malaise. Wound looks red, swollen, and is painful. The lint to be removed, and poultices to be applied. Pulse 110. To take the following mixture :—Quiniæ disulph. gr. vj., acid sulph. dil. ♏v., tinct. ferri perchlor. ʒss., ex mist. camph. co. ʒj. 4tis hôris. Brandy ʒx.; milk Oij.

25th.—Feels somewhat better. Diarrhœa still continues. Wound looks better. Very slight discharge. Pulse quicter, 96. Little perspiration; no perceptible odour.

26th.—Gradually improving. To have an injection of gr. $\frac{1}{3}$ of morphia at night.

27th.—Had three or four hours' sleep; diarrhœa has stopped; to take half doses of medicine; brandy reduced to ʒvj.

July 11.—Has been doing well since last report; wound scabbed over.

24th.—Convalescent; wound entirely healed.

August 1.—Bones in very good position.

FRACTURE OF RIBS—HÆMOPTYSIS—DOUBLE FRACTURE OF HUMERUS.

(Under the care of Mr. BIRKETT.)

P. C., labourer, of good general health; crushed between the shaft of an engine and the wall. Admitted June 14. Seemed in great agony, being semi-delirious; there appeared to be severe injury to chest and right arm; he was spitting blood. There was well-marked emphysema, and fracture of three or four upper ribs. Being put under chloroform, the humerus was found to be fractured through the middle of the shaft, and again immediately above the condyle. The arm was bandaged from the fingers upwards, and placed on an inside right-angled splint. A flannel roller was applied round the chest. To take vin. antimon. ♏x., ex aqua ʒj. 4tis hôris.

June 15.—More comfortable; emphysema has not increased; spits little blood. Pulse 98; respiration 44.

16th.—Pulse 88; respiration 34. Skin hot and dry.

19th.—Pulse 100; respiration 34. Feels very weak; no symptoms of lung mischief.

27th.—Has been progressing favourably. To take ♏x. of tinct. ferri perchlor. out of quinine mixture. The skin over the chest is sloughing.

July 3.—Large granulating surface extending over right pectoral and upper sternal region.

21st.—Has been doing well since last report, and now walks about the ward.

August 1.—Splint removed; wound on chest nearly healed; arm in good position; is to keep on the splint for another week.

KING'S COLLEGE HOSPITAL.

For the following cases we are indebted to Mr. E. B. Roche, M.R.C.S., House-Surgeon to King's College Hospital, Lincoln's-inn-fields :—

PHOSPHATIC CALCULUS—LITHOTOMY.

(Under the care of Sir WM. FERGUSSON.)

J. P., aged 18, admitted into King's College Hospital, under Sir Wm. Fergusson, suffering from stone in the bladder. He says that ever since he can remember he has suffered from pain on attempting to walk fast or run, frequently followed by the passage of blood with the urine. Always has pain and difficulty in passing water, which is voided frequently, but has never noticed the stream stop suddenly. He has followed the occupation of a saddler for the last four years, which requires almost constant sitting; but the least exertion, or even standing for any length of time, increased the pain, and caused the urine to become bloody. Is tolerably easy when sitting, and suffers pain during defecation. During the last six months the pain and bleeding have much increased. Up to a month before his admission he had never mentioned his condition to anyone, being, he says, "ashamed to speak of it." Unable any longer to keep his sufferings to himself, he told his friends, and they at once applied to a Surgeon, who sounded him, and discovered a calculus. On admission, the sound being passed, it was found that a large stone was present.

Sir Wm. Fergusson, on July 8, by the lateral operation, cut into the bladder, and attempted to extract the stone, which, however, broke down under the grasp of the forceps, and it was with difficulty that a firm hold was obtained, and the stone removed. A number of pieces were removed by means of the scoop. After the operation the patient was restless, and complained very much of the pain caused by the passage of th urine through the wound. At night he was rather feverish. Liq. morphiæ. hydrochl. ♏xxx. was administered.

The day following there was considerable abdominal tenderness, and some swelling. Ordered tinct. opii ♏xv., sp. æther nit. ʒj., every six hours, with hot fomentations. Slept a little, and the pain was somewhat diminished. Continued the fomentations.

In two days the tenderness completely subsided. The water flowed freely from the wound. A fortnight after the operation the urine first passed through the urethra in very small quantity, and was tinged with blood. The amount passed by the urethra increases daily, and the patient is now recovering.

The stone was uric acid, with a coating of phosphates, and in shape somewhat resembled a pear.

INJURY TO HEEL—DIVISION OF PERONEI TENDONS.

(Under the care of Mr. WOOD.)

F. M., aged 15, admitted under the care of Mr. Wood, complaining of inability to walk without suffering very severe pain.

He was employed as an errand boy in a grocer's shop, and had to carry heavy weights. He says that up to twelve months ago his foot was all right, and he could walk well upon it. An accident then occurred, a loaded timber-cart passing over his right heel, tearing off the heel of his boot. On attempting to stand he suffered great pain, and was quite unable to bear any weight upon it. He was laid up for nine weeks, and then began to get about; but any prolonged attempt to walk caused much pain, and though this has somewhat improved, he is unable to go any distance. On admission, the arch of the right foot was seen to be almost completely lost; the outer edge of the foot was drawn a little upwards, the peronei tendons being unusually tense, and the base of the fifth metatarsal bone was approximated to the external malleolus to a slight degree. He walked with great difficulty. Mr. Wood, by a subcutaneous incision, divided the tendon of the peroneus brevis near its insertion, then, by another puncture about an inch internal to the first, he divided the tendon of the peroneus tertius. The tension of these being now relieved, the peroneus longus tendon was found to be rigid, and was accordingly divided about two inches above the external malleolus. Pads of lint were firmly strapped over the punctures, and the foot next day was put upon a splint so arranged as to keep up extension and counteract the deformity of the foot. At the end of ten days the splint was removed, and a dextrine bandage applied, strengthened along the sides of the foot. When this was dry, the patient was able to walk well and without pain, putting the foot firmly upon the ground, and bearing all his weight upon it.

HOSPITAL FOR DISEASES OF THE THROAT.

CASES UNDER THE CARE OF DR. MORELL-MACKENZIE AND MR. EVANS.

Case 1.—*Syphilitic Adhesion of the Vocal Cords.*

T. D., aged 33, formerly a farrier in the Life Guards, was admitted into the Hospital, May 11, 1871, wearing a canula. Eighteen months previously he had been admitted on account of extreme dyspnœa and complete aphonia, which had existed for nearly two years, and was due to tertiary syphilitic disease of the larynx. Tracheotomy had been performed at the time, and the patient left after a few weeks, wearing the tube.

On his re-admission, an examination with the laryngoscope showed a web extending from one vocal cord to the other, and occupying the anterior five-sixths of the glottis. He was, of course, able to breathe well through the canula, but there was absolute loss of voice. Under these circumstances it was determined to make an incision in the median line, through the thyroid cartilage, and to divide the web; and, in order that it should not again unite, it was proposed that the patient should wear a double-branched canula, one branch consisting of the ordinary tracheal tube passing downwards, and a second similar tube passing upwards, between the vocal cords, and being attached externally to the first tube. This was accordingly done on May 16. The patient did very well for the first three days, but on the evening of the third day it was seen with the laryngoscope that the upper portion of the tube was producing an ulcer on the right arytenoid cartilage, and great pain was experienced in swallowing.

On the following evening, May 20, both tubes were removed, as it was deemed important to allow as full a current of air as possible to pass through the trachea. It must, however, be understood that the upper larnygeal canula was obliged to be removed, because of the irritation it produced, before all chances of reunion were over.

He appeared perfectly well for the first few days, but on May 25, one or two severe attacks of dyspnœa having occurred, the tracheal canula was replaced.

June 1.—On laryngoscopic examination, it was found that the greater portion of the web had been destroyed, and that more than three-fourths of the area of the glottis was free.

The man is now acting as under-porter at the Hospital, and it is proposed shortly to remove the tube. At present he is wearing a canula with a pea-valve, and an oval opening on the upper surface of the tube.

Case 2.—*Subacute Inflammation of the Larynx necessitating Tracheotomy.*

R. H., aged 33, a seaman, was admitted into the Hospital, June 15, 1871, on account of extreme dyspnœa and hoarseness. He stated that the difficulty of breathing had commenced in the previous November, but he had been able to continue work in the docks until a few days before his admission. He had been losing flesh for some weeks, and was often disturbed at night.

On examination with the laryngoscope, the whole of the right side of the larynx was seen to be red and œdematous. The symptoms increasing, tracheotomy was performed on June 22. The patient did well in every respect; the inflammatory swelling very gradually subsided, and the voice became normal. His health had so much improved that he gained 9 lbs. in weight in six weeks after the tracheotomy. Under these circumstances the tube was removed on August 1. The patient has had no bad symptom since, and is now attending as an out-patient.

Remarks.—Dr. Morell-Mackenzie observed that in the first case he had pursued the plan of treatment which he had found successful in two previous instances, but in this case the result was as yet only partially successful. Owing to the adhesion of the vocal cords, the man had been completely aphonic, but he was now able to speak well. At the time that it was originally intended to dispense with the tracheal tube there was a good deal of inflammatory swelling, consequent on the recent operation, and hence the patient was unable to breathe without an artificial opening. All thickening having now subsided, there is every reason to believe that the patient will soon be able to breathe perfectly well through the natural passages. The second case was very interesting as illustrating the value of perfect rest in cases of subacute laryngitis. It is extremely rare, after disease has extended over several months, for the larynx to entirely recover its healthy condition. It is almost an invariable law, that, when tracheotomy is performed for chronic disease of the larynx, the tube must be worn during the remaining life of the patient.

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Medical Times and Gazette.

SATURDAY, AUGUST 19, 1871.

CONFUSION SCIENTIFIC.

The general impression produced upon an intelligent, thoughtful mind in search of information concerning the progress of those departments of science most nearly connected with the advance of Medicine can hardly be satisfactory; for while many most absurd notions are repeated and forced into undeserved popularity, observations of great value but too often pass unheeded, or are only referred to with affectedly disguised contempt. Moreover, for years past it has been noticed that a system of something very like puffing has been indulged in by more than one scientific person invested by the public with very high authority. "The beautiful researches of that distinguished investigator" is a phrase which occurs somewhat too frequently in the remarks of many an advocate of some very far-fetched doctrine which people are not likely to believe in; while, on the other hand, facts which have been advanced

against the pet hypothesis are dismissed by the suggestion that, "unless we desire to restore the reasoning characteristic of the savage, we shall be little influenced by the statement," etc. Amid the rival assertions and conflicting arguments, the public is bewildered, and, losing sight altogether of the real interest and importance of the questions at issue, is reduced to being amused with the mere incidents of the battle and laughing at the "fun."

To people of a thoughtful turn, however, the recent meetings of the British Association for the Advancement of Science may afford food for more serious reflection. An earnest man may doubt whether any increased light has been thrown upon the debated question of the nature and origin of man by the very free talk that has been indulged in, and he will not feel certain that he has learnt anything new concerning spontaneous generation by the recent discussion. The *public* may, perhaps, be quite decided as to the merits of the great ape controversy; but is the question one likely to be settled by public acclamation or the clapping of hands? As regards spontaneous generation the difficulty of deciding what to believe is even greater, for one advocate of the doctrine seems to have proved that if organic matter, and even certain inorganic matters, be exposed to a temperature of 300°, and then kept *in vacuo* for a time, the conditions are very favourable for the development of those "collocations" of particles which result in the formation of living organisms of a very simple form; while another says that only at 400° is every living form certainly destroyed, and he therefore maintains that the creatures supposed to be formed anew have been really developed from germs which withstood the influence of a temperature of 300°. The very confident assertions made by Dr. Bastian, backed and supported as they have been by a writer in the *Saturday Review*, would probably have satisfied any person of ordinary intelligence that the origin of living beings in these days from non-living matter was simply a well-established fact. And yet the evidence against spontaneous generation seems to other minds, long engaged upon this and kindred investigations, hardly worthy of serious discussion, so opposed is it to the results of numerous careful and apparently accurate observations. Thus the public is confused, instead of being enlightened and taught.

But it is doubtful if the confusion in the public mind exceeds the confusion of many of the scientifics themselves. Dr. Tyndall rediscovered, by the aid of a strong light, multitudes of solid particles in the air, such as had been seen by previous generations in a sunbeam. Without showing that one of these motes was alive, he spoke of all the particles as if they had been proved by him to be living germs capable of propagating disease. It is obviously possible, in spite of all that he has said, that there might not have been one single "germ" present; but it is quite certain that *all* the particles were not living or of a germ nature. But Professor Lister thinks that suppuration is excited by organisms getting into wounds from the air. Dr. Tyndall praises Mr. Lister's speculations about suppuration, in the hope that he will make much of the germs found for him. Professor Lister acknowledges the compliment, and, from the remarks he made at the recent meeting of the British Medical Association, seems only too glad to accept Dr. Tyndall's particles as the very germs he is in search of. But, unfortunately, other philosophers affirm, and just as confidently, that the germs in the air are fictions of the imagination, but that real live germs abound in water, and are to be found upon ordinary surfaces; so that, in spite of all that has been said and done, there is a nice series of questions still to be answered. What is a germ? Are the motes of a sunbeam germs? Does suppuration depend upon Dr. Tyndall's motes or germ-particles of another kind? Unfortunately, we are not likely to get replies to these questions.

Confusion has been rendered worse confounded by the circumstance that numerous writers have not distinguished clearly between living particles of the nature of fungi and living particles derived from the living matter of the higher living organisms in the manner suggested by Dr. Beale, and described by Dr. Sansom in his new work, "The Antiseptic System." Even Dr. Sanderson's observations are open to this criticism; he seems to entertain the opinion that the active material constituting the contagious virus of small-pox, vaccine, and some other fevers is really a vegetable organism—a microzyme—an opinion at variance with the fact that the so-called microzymes are numerous only when the virus has lost its contagious properties, not when it possesses them in an eminent degree; that is, immediately after it has been withdrawn from the seat of its formation. The hypothesis now so highly favoured in this country, and advanced as a full explanation of the origin and spread of contagious diseases as well as the formation of abscess, actually rests upon the assumption of the invariable introduction from without of the supposed vegetable organisms or microzymes. One single case, therefore, in which such bodies were discovered in a closed cavity in the substance of the tissues, would invalidate the doctrine and favour the view long held by many, that the vegetable organisms which are actually found in some cases simply grow in fluids in a state of chemical change, in which state of change or commencing decomposition materials are formed suitable to the nutrition, growth, and multiplication of the particles, and that after all these "vegetable germs" have nothing whatever to do with the origin of the disease or with any particular morbid affection. The whole theory that putrefactive change is due alone to the introduction of living organisms from without, at this time rests upon the most unsatisfactory data.

To us it appears as if the champions of the many conflicting scientific views preferred firing long shots at one another from a distance, to the danger of close quarters. Each evades the objections urged by those opposed to him, and is called a strong or weak brother, according to the skill he displays in intellectual fencing. Each appeals to the evidence of experiment, but neither believes in the experiments of his opponents. Each professes to love truth above all things, and now and then one affirms that "he hates a lie," apparently losing sight of the terrible alternative which presents itself. In too many cases the advocate makes the best of his own case, and utterly ignores the arguments of his opponents.

But this wordy, windy philosophy is opposed to the spirit of science, and simply serves the evanescent interests of an individual or the cause of a party. It is perfectly manifest to every impartial looker-on that all the strange doctrines taught, and urged with an intensity that renders it unwise on the part of anyone to express any doubt, cannot be accepted as if they were true; while some persons will be disposed to think that the truth rests quite peacefully in some quiet nook not yet explored or dreamt of by the gladiatorial actors, who absorb the entire space of the scientific arena for the display of their own special feats of skill.

THE CHOLERA.

At Königsberg the cholera continues to increase, though not very rapidly. On Saturday, the 12th, forty persons were attacked, and nineteen died; and on the 13th there were thirty-eight seizures and sixteen deaths. The police authorities had ordered that no vessel should leave the port without its crew having been Medically examined. At Neufahrwasser, some cases of cholera had occurred on board ship. Two ships arrived in the Thames on Saturday from Cronstadt, and it was reported that in each of them a man had died of cholera; but on inquiry it appeared that both the men had died at Cronstadt, and it is not certain whether they had died on board or not. The clothes of one man were burnt on board; the clothes

of the other were landed, and almost immediately destroyed at the Board of Works. A telegram has stated that a case of cholera had occurred in Paris, but this statement has not been confirmed. On Tuesday, the 15th, the *Times* published a letter from Dr. James Edmunds, stating that, at half-past two o'clock that morning, he had been called up to a typical case of Asiatic cholera in Charlotte-street, Portland-place. We felt it difficult to know whether to admire most the gentleman's rapidity and decision in diagnosis, or his promptness and energy in making that diagnosis known to the public. But it appears, as we had ventured to hope it might, that the Medical Department of the Privy Council does not agree with Dr. Edmunds in diagnosis. In answer to a question put in the House of Commons, Mr. Forster stated that the Medical Officer of the Privy Council had sent a Physician to examine the case, and "he was glad to find, from the report made, that there was reason to believe that the case was not one of Asiatic cholera, although there were symptoms at first which might have excited suspicion." The patient was a respectable artisan, and a school-teacher, and "had been taken ill on his return from a school treat; he was then—Tuesday afternoon—much better, and there was reason to suppose it was sporadic cholera." Mr. Forster added that "he could have wished that Dr. Edmunds had waited a few hours before writing to the papers, and not excited needless alarm until he had ascertained whether he was right or wrong in his suspicion. It was his first duty to communicate with the sanitary authorities of Marylebone, and he trusted that in all other cases of the kind, whether in London or in the provinces, that course would be adopted by Medical men."

The Medical Department of the Privy Council has published an excellent and instructive document, which will be found in our pages, on cholera and the precautions to be taken against it. The Registrar-General's Report again shows, as might be expected, an increase in the deaths from diarrhœa, the number being 299, of which only 31 were of children above one year and adults. To cholera and choleraic diarrhœa 15 deaths were referred, 13 of them of infants not exceeding one year.

We had intended to speak again this week of the *lâches* of Government in respect of sanitary legislation, and to point out more fully and more particularly how our rulers wilfully sin against knowledge in this matter; but the subject has been so admirably well, and, for an official, so boldly, treated by the Medical Officer of the Privy Council in his thirteenth annual report, that we cannot do better than refer our readers to what Mr. Simon says. He points out very clearly and forcibly that the death-rate in this country is at least one-third higher than it would be if our actual knowledge of the principal causes of disease were properly and well utilised; and that the average yearly number of preventible deaths in England and Wales amounts now to about 120,000. Of course, each of these 120,000 represents also a group, larger or smaller, of cases of disease which, though not ending in death, cause unfitness for work, suffering, and poverty, and often leave behind physical depression and injury. Mr. Simon observes that disease hinders national prosperity, and tends to the deterioration of race; that this "needless animal suffering" is a matter for "indignant human protest"; and that it falls chiefly and most severely on the most helpless classes—on those who have the strongest claims on a Government able really to "justly measure and to abate their sufferings." And the evil thus left to flourish and run riot does not affect life and health only. Few who have at all studied the subject will differ from Mr. Simon, when he goes on to assert that, as things are at present, "civilisation and morals suffer equally with health"; that all our efforts for the spread and improvement of education must fail while unaccompanied by the amendment of sanitary laws; and that human life cannot be elevated morally, while "physically it is so degraded and squandered." Mr. Simon thinks that considerations such as these invest the subject of sanitary legislation, or preventive Medicine, with a degree of national importance to which very few subjects can pretend; but, he observes, "its relative position among such subjects is not a point on which he would presume to speak." That is to say, we suppose, that his official position will not allow him to say openly that the subject is of more real and immediate importance than secret voting, abolition of purchase, or many other matters that have occupied the Legislature this year. He remarks that he cannot too forcibly express his official knowledge that the matter most urgently needs the attention of the Legislature; but in all probability the annual penalty of 120,000 lives for neglect of the subject will be paid for several years to come, while this year cholera will, we fear, also add largely to the roll. It must, however, be acknowledged that Government is not alone to blame in the matter. Ample experience has taught how her Majesty's Ministers may be forced not only to take subjects into "serious consideration," but to proceed to legislate on them; and there can be no doubt that our sanitary law would have been now in a very much less imperfect and chaotic state had its amendment been pressed on the Government with anything like the urgency and persistence that have been expended on some other matters. But sanitary science lacks the charms that attract agitators; it is not opposed to common sense and knowledge, and so finds no favour in the eyes of the anti-vaccinationists; it offers no immediate sensible personal glory or gain, and has therefore no pretence to the regard of those who agitate for woman's rights or the female franchise; it is not so sensational as the anti-contagious diseases subject, though 120,000 preventible deaths a year might be deemed somewhat sensational, nor has it any charm of nastiness or prurience; its does not, like the Maine liquor-law legislation, attract those who would "damn the sins they have no mind to"; and it cannot well be made the subject of tall talk and passionate appeals to class prejudices. It is, therefore, neglected on all sides, except by quiet, hard-working, well-informed scientific and professional men, who have neither time nor taste for agitation or popular platform displays.

METROPOLIS WATER-SUPPLY.

The fate of the Metropolis Water (No. 2) Bill hangs in the balance. Will it or will it not pass during the present session? is a question that must, at the present moment, press heavily on the Water Companies, and perturb the breast of many a director. No doubt the companies heartily wish it success; for, in its present form, as amended by the Select Committee, it may be described as essentially a water companies' Bill. The Bill, as originally introduced by the Government, had some good points and many doubtful ones; but the present Bill has been so denuded, at the instance of those who represent vested interests, of most points in it that were likely to prove useful, that we should almost consider it, if not a national, at least a metropolitan, misfortune were the proposed measure to be accepted as a final settlement of the questions at issue. Let us see in what respects the Act of 1852 has failed to secure the beneficial results expected from it, and how these failures are proposed to be remedied. We shall also inquire what provisions any measure that is to command the confidence of sanitarians must contain. In doing this the lamentable defects of the Bill now before Parliament will be only too apparent.

The Act of 1852 has secured for London many undoubtedly great improvements in its water-supply, whilst it has entirely failed in giving the householder, or any considerable body of householders, any effective voice in controlling that supply. Thus, the Act has restricted the sources of supply—in itself an immense advantage—and has prevented the adoption of any new sources of supply until these shall have been approved of by the Board of Trade; it has secured the covering of all

reservoirs within five miles of St. Paul's, and it has put a stop to the conveyance of water for domestic use within the metropolitan area in uncovered aqueducts. It has failed, however, to secure the effective filtration of water before distribution; nor has it been more successful in securing a constant supply, although both these desiderata are expressly contemplated in the statute. The supply of a pure water, above all suspicion of contamination, can scarcely be said to have been contemplated, inasmuch as water is permitted to be taken from the Thames and other sources in places where it has already received a large amount of excremental pollution.

Now, how are the defects of the present statute proposed to be remedied by the Bill. First of all, it proposes to amend the Act of 1852, and not to repeal it. This slovenly method of patching and renovating old and defective legislation is, to our mind, most reprehensible, and we are glad to see that the very important sanitary measure introduced by Sir C. Adderley will, when it becomes law, set aside this vicious system by repealing all the old sanitary statutes, and re-enacting their provisions, when advisable, in one comprehensive statute. It is always difficult to construe two Acts as one Act, and loopholes of escape from inconvenient provisions are too frequently afforded by this slipshod mode of saving trouble. Let us next see how it is proposed to secure those two great desiderata—a constant supply and a pure supply; for what is, above all things, needed is a constant supply of pure drinking-water. The Bill states that every metropolitan water company may, and shall, when required to do so in the manner directed, provide a constant supply of pure and wholesome water for domestic purposes within the district supplied by such company. The "manner directed" is this:—The metropolitan authority (generally the Metropolitan Board of Works) shall, if they are of opinion that there should be in any district a constant supply, make application to the company for such supply. It may be fondly imagined that the metropolitan authority will, in the event of the measure becoming law, as speedily as possible require the companies to furnish a constant supply in their respective districts. Be it so; yet it does not follow that a constant service will be thereby secured, for any company has only to show that more than one-fifth of the premises in its district are unprovided with proper fittings, and the demand may be refused. It is true that the metropolitan authority may in this case require the occupiers or owners to provide the prescribed fittings, and, in the event of contumacy, may itself provide them at the owner's cost. Let, however, the Metropolitan Board once attempt to put this clause in force, and the owners of small house property, who form a powerful element in vestries, will at once move these to return members to the Metropolitan Board pledged not to enforce this (to them) odious provision. The Board of Trade has, indeed, power to enforce a constant supply, but only where the metropolitan authority refuses to make, or unreasonably delays making, application for it, or when the health of a district is, or is likely to be, affected prejudicially from the absence of such supply; and it does not appear that the Board of Trade can dispense with the clause as to the necessary fittings, and can enforce their provision by the owners or occupiers of houses. We cannot see how, in the face of these obstacles, a constant supply is to be secured by the proposed statute. A salutary clause by which it is contemplated that groups of houses in poor and crowded courts may receive their water-supply from a standpipe in the court is marred by the omission of stating by whom the order of the Board of Trade on the requisition of the nuisance authority is to be enforced, and by no provision having been made as to the incidence of the water-rate in such cases. These considerations force upon us the conclusion that the Bill cannot, if it passes, do anything of importance in procuring a constant supply of water to the metropolis. We do not even consider that the 32nd Section of the Bill, by which the absence of the prescribed fittings for a constant supply is to be deemed a nuisance under the Nuisances Removal Act, unless the contrary be shown, will render the measure effective.

As regards the quality of the water to be supplied, the original Bill made effectual filtration an essential—the mode of filtration to be prescribed by one of the Secretaries of State—and contemplated the fixing of a definite standard of purity, the purity or impurity of the water to be determined daily by a paid Government analyst, a penalty being imposed for impurity. Now, whatever differences of opinion there may be as to the evidence of injurious pollution of potable water, we imagine that few would doubt the expediency of fixing some standard of purity, below which no company's water should be allowed to fall. Unfortunately, all these clauses disappear in the amended measure. No mention is made of filtration; the appointment of the water-analyst is dispensed with, but, in lieu thereof, a water-examiner is to be appointed, who shall be paid by the companies, and who is from time to time to examine the water supplied. Anything more loose and inefficient than this could scarcely be devised.

At the time we are penning this the Bill, having passed through the House of Commons, has been read a second time in the Upper House. Possibly it may soon become law. We should not be disappointed, however, were we to see it made one of the innocents.

THE WEEK.

TOPICS OF THE DAY.

The supervision of the Thames and the port of London, in this time of threatened importation of Cholera, has been committed by the Medical Department of the Privy Council to Dr. George Buchanan, whilst the ports of the North-east coast are being visited by Mr. Netten Radcliffe. The Profession may well rest assured that no pains will be spared by these gentlemen to rouse the local authorities to a sense of the impending danger, and that every means of defence which can be, will be employed. On Tuesday, at Hull, the master of the steamship *Kelso* was fined in the full penalty of £20 for having offended against the recent Order in Council. The *Kelso* had arrived at Hull from Cronstadt, and, although warned to anchor at the place appointed by the nuisance authority, she had steamed directly into dock. The defence set up was, that the master did not receive the order to stop until it was too late to do so without great risk to the ship, and that the ship was perfectly free from infection. The magistrate, however, evidently impressed with the necessity of making an example, declined to grant an application for a mitigation of the fine.

The explosion of fifteen tons of gun-cotton at Stowmarket, and the consequent death or injury of a number of people, is one of those penalties which civilised man seems continually called upon to pay as the price of advancing science and art. Of course, such accidents are in theory avoidable, but in reality they recur with terrible certainty. Most of the gunpowder magazines have been at one time or other blown up, and every year brings its explosions of nitro-glycerine. Some peculiar interest, however, attaches to this accident at Stowmarket, for it seems that the unfortunate Messrs. Prentice were under a strong impression that an explosion was impossible, and their belief was founded upon certain experiments recently made by Government officials. These experiments are thus described in a recent article in the *Times*:—

"With a view of demonstrating the non-explosive property of compressed gun-cotton when fired by the ordinary application of heat, a number of wooden boxes, each containing twenty-eight pounds of gun-cotton discs, were stacked on one another, and surrounded with similar boxes full of clay, so as to represent the weight of the superincumbent mass when the boxes were stacked in tiers, as they would be in store. An ordinary electric tube having previously been inserted into one of the boxes of gun-cotton, was then fired. Many of the spec-

tators, knowing what would occur in the case of gunpowder, were prepared for a violent explosion. To their astonishment, however, the gun-cotton of the individual box merely inflamed, without igniting that in the other boxes, and without disturbing the pile in any way. The experiment was then repeated by kindling a fire in the pile with shavings and tar. A considerable bonfire was the result. The outsides of the boxes burnt bravely for some ten or fifteen minutes, until at length the flame found access to the gun-cotton in one of the boxes. This was followed by a dull puff and a bright mass of flame, but there was no explosion. The materials of the bonfire were then scattered by the artillerymen in charge, in doing which a box of gun-cotton, partially charred on the outside, inflamed while being dragged by one of the men over the incandescent *débris*. Had this been a barrel of gunpowder several lives would, in all probability, have been sacrificed; as it was, the incident only caused a laugh at the agility with which the man jumped backwards. How, then, can we possibly explain the awful eastastrophe at Stowmarket? Suddenly, unexpectedly, treacherously, a magazine of compressed gun-cotton explodes, dealing death and destruction on all sides."

It is a curious coincidence that the only portion of the body of one of the Messrs. Prentice which permitted identification was a foot, the ankle of which was marked with a scar, the result of an injury sustained in an explosion which occurred some years ago.

The Vaccination Amendment Act has been passed at a late sitting by a scanty House of Commons. The privilege of non-compliance with the Act may, therefore, be purchased from henceforth by the payment of a fine of 20s. Was there ever a more clumsy piece of legislation? The whole thing was argued on the third reading in the House of Commons, and the illogical 10th clause, which enacts that the full fine shall be only once inflicted was defended on the ground that people had conscientious and sincere objections to vaccination. No doubt they have; and therefore we, in the interests of vaccination, have always held that it was mistaken policy to endeavour to enforce it by fines and imprisonment. Virtually, the Vaccination Act will be now systematically and legally infringed, whereas, by adopting the German plan of making all social privileges contingent on vaccination, on the ground that vaccination is for the benefit of society, and not merely for the benefit of the individual, the chief occupation of the anti-vaccination fanatics, which is to preach the injustice of prosecution and penalties, would be gone.

We are glad to see that the Admiralty have determined on representations made by the Royal Society to fit out an expedition, which will start next year, and will be absent four years, to extend, and, if possible, complete the information to be obtained by deep-sea dredgings and soundings. The expedition will visit every part of the ocean whence it is believed knowledge may be obtained. The observations already made by Professors Carpenter, Wyville Thompson, and Mr. George Jeffries, if confirmed, must go far to affect all previous theories as to geological formation and geological time. If these observations are to be trusted, the deep-sea temperature is not an equable one of 39°, as previously supposed, but descends to just above freezing-point, and it is so modified by currents that an arctic and a temperate fauna may coexist at a short distance from each other, and strata of different characters may be thus forming contemporaneously. There is a constant interchange going on between the waters of the poles and the equator, modifying the temperature of northern climates, and producing deep and superficial currents. The process of chalk formation is still being carried on by countless myriads of globigerinæ, and in the dark caves of ocean, where light was believed never to reach, are creatures possessing highly organised eyes. It may be that these results contain the germs of discoveries which will go far to dispel much of the imaginative science of the present day. Under any circumstances we rejoice that our Government has undertaken to prosecute an investigation which cannot be fruitless, and may give a much deeper insight into biological as well as geological truth.

FOREIGN DECORATIONS.

The recent discussion in the House of Commons on the acceptance by a British subject of the decoration of a foreign order, bears chiefly upon the cases of Deputy Inspector-General C. A. Gordon, C.B., and Surgeon-Major Wyatt, to whom the French Executive Government offered the distinction of "Officier de la Legion d'Honneur" in recognition of their services to the wounded during the siege of Paris. Neither of these officers having received any acknowledgment from our own authorities of their services, and of the risks they encountered during the most arduous and anxious episode of modern times, it seems hard that any point of official etiquette and routine should stand between them and the honour conferred upon them by the French Provisional Government. In the case of Surgeon-Major Wyatt, indeed, if we be rightly informed, no official objection can be raised against his accepting and wearing the insignia of the higher order of the Legion of Honour, of which he is already a member, in consequence of his services in the Crimea, and he is, therefore, entitled to accept any subsequent promotion in the order which may be offered to him. Hence would arise the very striking anomaly of the junior officer being entitled to accept and wear a decoration, while the senior employed on the same duty is not permitted to do so. We, therefore, hope that in the consideration which the subject is about to receive from the Government some means may be found of removing the disability in the case of Dr. Gordon, and in any future similar instances which may arise.

A QUESTION OF "NEGLIGENCE."

A case of considerable importance with respect to the responsibility of Medical Practitioners who retail drugs was tried last week at Croydon. The case was Trotter *v.* Downes. The defendant, Mr. Downes, is a Medical Practitioner in Southwark, where he has an open surgery. He has been established for upwards of thirty years. He has two "pupil assistants and one senior." It appeared from the evidence that the plaintiff, a working woman, called at the defendant's shop, and asked one of the junior assistants for "Rochelle salts." He, however, declared that she asked for "Rochter salts." He supplied her with half an ounce of carbonate of potash or "salts of tartar," a spoonful of which she took in water. She stated that she required the drug for the bile; but this was denied by the assistant, and his denial was confirmed. The medicine gave her great pain, and she vomited violently; but, though considerable depression and prostration followed, it was admitted on all hands that no serious injury resulted. A Medical Practitioner of the name of Alexander, who was called to attend her, gave evidence to that effect; and though another Practitioner gave some evidence on her behalf, the injury was proved to amount to only temporary discomfort. Several Practitioners appeared on the part of the defendant. We give in detail the following particulars of the mode in which the "action" against the defendant was got up. It must be remembered that, though the defendant was only mulcted of a "farthing damages," he will have to pay his own heavy law expenses; he has been taken away from his practice, his mind harassed, and his reputation jeopardised. We are rejoiced to record the sensible summing up of Baron Bramwell, and trust that the result of this case may prevent the institution of many "actions" for "negligence" for the future. It appeared that an attorney's clerk, who lodged in plaintiff's house, came to defendant to claim compensation, and he said that if she could see him, and he found that she had sustained any damage, he would compensate her; and he subsequently, in order to avoid the vexation of an action, offered to pay as much as £40 or £50, but in vain. A writ was issued, and an action entered against him, though he had done the best he could to remedy the consequence of an error on the part of an assistant in his absence, and which

had, according to the evidence, done no real injury at all. It appeared that the attorney's clerk entertained sanguine expectations of the fruits of the action, and even the sum of £200 was mentioned as the probable amount of damages. The result, however, it will be seen, was very different indeed. The woman gave evidence as a witness, and was supported by her daughter. According to her story she had been quite laid up; there were serious symptoms, and even paralysis spoken of as imminent. For the defence several eminent Medical witnesses, who had examined the woman, were called, and their evidence showed that there was no real injury at all—nothing beyond the temporary effect—nothing really serious; and witnesses were called who proved that the woman had spoken of the circumstance as a means and an occasion of obtaining money as damages. After a long trial, the learned Baron summed up the case dispassionately to the jury. If, he said, the assistant had understood the woman as asking for Rochelle salts, and had given her the carbonate for it, or if he had not taken care to ascertain what it was she wanted, the defendant would be liable; but if he gave her what she asked for, then, as she did not ask for directions about its use (though it would have been better to have given them), the defendant was not liable. Even, however, though the jury found for the plaintiff, there would remain the question of damages, as to which the learned Judge observed there were many circumstances which required consideration; the case must be looked at as a whole; and there was strong evidence of undoubted witnesses that the woman had sustained no real injury at all. Moreover, there was great reason to suspect that it was the attorney's clerk, rather than the woman, who was interested in the action. The jury, after a brief consultation, gave a verdict for the plaintiff for one farthing.

THE LOCAL GOVERNMENT BOARD.

Before our next issue the Poor-law Board will probably have ceased to exist. The Act constituting the Local Government Board (34 and 35 Vic., cap. 70) received the Royal assent on the 14th inst. It provides that the new Board shall be deemed to be established from the date of the warrant appointing its first president, and it is understood that this appointment will take place at once. We learn that arrangements have been made to avoid any hiatus in the proceedings of the several departments amalgamated. In view of the apprehended epidemic of cholera, it would be very undesirable were a hitch to occur in the central machinery. It will be a comfort in future to know exactly where to write in case of alarm or doubt, and to realise that the *Times* is not the only channel available on being called to a "typical" case of cholera. The Local Government Board will exercise all the powers hitherto vested in the Poor-law Board; the powers vested in one of her Majesty's principal Secretaries of State in respect of registration of births, deaths, and marriages, public health, local government, drainage (sanitary matters), baths and washhouses, public improvements, towns improvement, artisans' and labourers' dwellings, returns of local taxation; and the powers vested in the Privy Council in respect of prevention of disease and vaccination.

CHOLERA IN RUSSIA.

The authorities in Russia are "up and doing" with respect to sanitary precautions against cholera. "Committees" have been formed in all the towns, and the Government are rendering all the assistance in their power. The dirty habits of the people render precautions doubly difficult of being carried out, and, in fact, constitute the principal danger to be met. The Medical Department of the Minister of the Interior has sent a reinforcement of Doctors to places where they are wanted; but the demand has been such that students have been sent from the Medical Academy.

SPECIAL PENSION TO AN ARMY MEDICAL OFFICER.

Surgeon-Major T. Park, who lately retired on half-pay from the Royal Artillery, in consequence of having, during the performance of a Surgical operation, sustained an injury resulting in the permanent contraction of some of the fingers of the right hand, whereby its operative efficiency has been seriously impaired, has, we are glad to hear, obtained a pension of £200 per annum. The injury occurred before Mr. Park's promotion to the rank of Surgeon-Major, and the rate of compensation is that granted to him as Surgeon holding the relative rank of Major. We are glad of the opportunity of recording this just recognition by the War Office authorities of the claims of Medical officers to compensation for loss or impairment of the function of a limb, resulting from injury sustained during the performance of their special duties as Surgeons, on the same scale as combatant officers who may suffer similar results from wounds received in action. There cannot be the slightest doubt as to the complete analogy of the cases, but the instances of Medical officers being permanently maimed as the result of their peculiar risks are, happily, so rare, that a considerable time will probably elapse before it will be necessary to apply the precedent lately established in the case of Surgeon-Major Park.

THE NATIONAL ARTILLERY ASSOCIATION CAMP, SHOEBURYNESS.

We are glad to hear that no serious cases of disease or accident have occurred to mar the success of the week. About 120 patients have received Medical treatment, the majority of the cases of illness being caused by the effects of the sun on the face, which has produced great ecchymosis of eyelids and forehead. Many cases of diarrhœa and colic occurred, especially at the outset of the meeting, and one case of small-pox, which was immediately removed to the Royal Artillery Hospital, and placed in a ward situated away from the main building. The camp was provided with Hospital and Dispensary tents, containing regulation medicine chests and instruments, by order from the War Office. The staff consisted of Mr. J. Wickham Barnes, F.R.C.S., Surgeon, and Messrs. Corbett and Willing, Assistant-Surgeons. These gentlemen are unanimous in recommending that on all future occasions volunteers should come provided with head-gear as worn in India, and loose holland blouses. They also desire to express their thanks and obligations to Colonel Chermside, R.A., the Camp Commandant, and to Dr. Harrison, R.A., for their kind courtesy and attention.

WHERE DOES THE FAULT LIE?

After the care bestowed on the framing of the Artizans' and Labourers' Dwellings Act, it would seem that its provisions in one important point are all but a dead-letter. Under the statute places unfit for human habitation have been condemned by the Medical Officer of the Holborn District, and by the local authorities, and yet they have not been demolished. The excuse is made that the owners have shut up the condemned houses, and therefore the Board have no legal right to pull them down. In one instance, the owner of some of these houses, after abandoning them, had allowed the premises to be reoccupied, and they are at present in use, despite of the provisions of the Act of Parliament. It will be a reflection on the District Board if they prove themselves unable to give the poorer classes the benefit of a law especially framed for their protection.

A CHANGE.

Paris, so late the scene of so much crime and disease, is now said by *Le Temps* to be one of the healthiest cities in Europe. In Berlin, Barcelona, Florence, Brussels, and London the mortality has exceeded that of Paris. There has been no death from cholera, and the mortality from small-pox has become quite insignificant. The exemption is due, *Le Temps* says, to the excellent sanitary arrangements, which are carried out with unusual vigour and vigilance by the authorities.

UNHEALTHY STATE OF THE ROYAL ORTHOPÆDIC HOSPITAL.

An inquest was held on Tuesday last in the Board-room of the above Hospital on the body of Henry Charles Bard, aged 5 years, who had died in the Hospital on the previous Thursday from an attack of diphtheria. The inquiry attracted great attention, and was much protracted in consequence of an allegation by the Medical officer that the death of the child had been accelerated by the unsanitary condition of the Hospital. Mr. M. W. Bourne, the Resident Medical Officer, deposed that the child, on his admission to the Hospital on August 1, was in good health, and this was not affected in any way by an operation on the foot to which he was afterwards subjected. On the 7th, the child was seized with diphtheria, and notwithstanding that he had the advantage of the attendance of most of the Medical staff, he died. Mr. Bourne was firmly of opinion that the attack of diphtheria was accelerated, if not produced, by the very defective sanitary condition of the Hospital. The witness, on commencing his duties in the institution, had found the general and sanitary arrangements as "bad as they could possibly be." This was the case in respect to the diet, the cooking, the cleanliness, and the knowledge and attention of the matron and nurses. He had sent in a written report to the Committee on the state and condition of the Hospital. The witness was cross-examined by the Chairman of the Committee, but his evidence was not shaken in any material point. Mr. Tamplin and Mr. W. Adams agreed in the main with Mr. Bourne, Mr. Tamplin stating that he had frequently called the attention of the Committee to the general want of care and cleanliness on the part of the nurses, and the dirty state of the patients. Mr. Adams had seen the deceased some weeks before his admission into the Hospital, and had then declined to admit him in consequence of the unsanitary condition of the place. He believed that a regularly trained nurse at the head of the nursery department would effect a beneficial change. After some remarks from a member of the Committee, and a long and able summing-up of the coroner, the jury agreed to the following verdict:—"That the deceased died from diphtheria; and we recommend the Committee to adopt and act upon the suggestions of their Medical officers, especially with respect to the appointment of a regularly trained nurse." Now the foregoing facts are discreditable in a high degree to the managers of the Hospital, who cannot advance the excuse of poverty for the disgraceful condition of the institution which they "manage." The course pursued by the Medical staff is worthy of commendation, and will, it is hoped, be followed in all cases requiring such a decided and independent mode of action.

FEVER AT GLASGOW.

An alarming outbreak of fever has occurred amongst the girls employed at Airdrie cotton-mill. In the early part of last week a dozen of those girls employed in the manufacture of winseys from foreign-grown wool were seized with the fever. One of the cases ended fatally in three days, and six new cases have occurred this week. It is rumoured that the imported wool contained fever germs. At all events, all those who have been attacked were employed in that part of the factory where this wool is kept and manufactured. A searching inquiry will, no doubt, be instituted into the matter. The outbreak has caused considerable excitement in Glasgow.

THE WITHDRAWAL OF TROOPS FROM CANADA.

It has been decided that all troops shall be withdrawn from Canada on or before October 31, 1872. Canada has always been a healthy and favourite foreign station, and its loss will be felt by no class more than by Medical officers. Formerly it was a station for an Inspector General of Hospitals, but, since the withdrawal of a portion of the garrison, the Medical superintendence devolved upon a Deputy Inspector-General, so that all ranks of the Army Medical Department will be affected by the recent and approaching changes.

THE NORTH RIDING INFIRMARY.

It is with much regret we notice that two of the honorary officers of this institution have been compelled to assert their position as independent Medical men by sending in their resignation in consequence of the action of the governors of the institution. The Hospital, in consequence of the enormous development of that region, is rapidly assuming very great importance. It is, therefore, of the first consequence that the best and most experienced men in the place should be returned as its officers; but that, under existing circumstances, seems impossible. The original rules of the Hospital provided for the suspension of the paid officers—the House-Surgeon and Secretary—by the House Committee. This was perfectly reasonable; but when these rules came to be revised some little time ago, a clause was inserted, giving them the same power over the honorary officers of the establishment, and this, as far as we can make out, without in any way consulting them in the matter. This, of course, was altogether too much, and led to the prompt resignation of two of the most distinguished Medical Practitioners of Middlesbro', who had been officers in the institution. If we reflect that this rule placed the reputation, both social and Professional, of our brethren in the hands of men ignorant not only of the etiquette which governs our Profession, but of that which governs polite society, we cannot but commend them on the step they have taken.

FROM ABROAD.—CONTRACTION OF THE PULMONARY ARTERY—THE CHOLERA OF ST. PETERSBURG—THE MEDICAL CONSTITUTION OF PARIS.

At a recent meeting of the Paris Hospital Medical Society, M. Constantin Paul read a very interesting paper on "Contraction of the Pulmonary Artery." It was founded on a case which came under his care at La Charité, this leading him to an examination of other recorded cases. From a consideration of these he arrives at the following conclusions:—1. The pulmonary artery is not only the seat of congenital affections, but may also become the seat of disease acquired during extra-uterine life. 2. Among these lesions there is one of great importance—viz., a contraction of the pulmonary artery, acquired subsequent to birth. 3. This contraction is sometimes found on a level with the sigmoid orifice, being produced by adhesion of the valves, together with a contraction of the orifice, and sometimes even of the calibre of the artery at this level. In general, it is the result of endocarditis. 4. The contraction may occur at the level of the *infundibulum*, and forms a pre-arterial contraction. This is more commonly the consequence of a myocarditis. 5. The contraction may have its seat in one of the branches of the bifurcation of the artery; but M. Paul has never met with it in the trunk of the artery, as is seen in contraction occurring during the early months of intra-uterine life. 6. Beyond the contraction, the artery is in general dilated. 7. There is almost always a consecutive hypertrophy of the right ventricle. 8. Valvular contraction may be accompanied by insufficiency of the same valves. 9. There may exist at the same time a lesion of the tricuspid and of the valves of the left heart. 10. The symptom which is proper to the contraction of the pulmonary artery is a systolic bellows-sound, that is more or less rasping (*râpeux*), and which extends over the cardiac region, but is at its maximum at the level of the pulmonary orifice, sending a characteristic prolongation in the course of the vessel. 11. The contraction does not give rise to cyanosis. 12. In the acquired contraction the *foramen ovale* is closed. 13. Still, myocarditis developed during extra-uterine life may give rise to, at the same time, a pulmonary contraction and a communication between the two hearts. 14. A contraction of the pulmonary artery, accompanied by a persistent *foramen*

ovale, need not be necessarily congenital, if it became developed in a subject having the orifice open. The probability, however, would be that the contraction was congenital. 15. The proof that the contraction has arisen during extra-uterine life may be derived from the fact of the lesions being recent. 16. A frequent complication of pulmonary contraction is consecutive tuberculisation.

In relation to the epidemic of cholera at St. Petersburg, M. Delpech read, at the meeting of the Académie de Médecine on the 8th inst., a note containing a statistical account up to July 19. From July 14 to 19 respectively, the new cases amounted to 47, 57, 29, 31, 33, and 33, or a total of 230, with a mortality of 119. The total number of cases that have occurred between August 17, 1870, and July 19, 1871, has been 6817—viz., 4568 males and 2249 females. Of these 2797 have died—viz., 1938 males, and 859 females. M. Delpech observes that an epidemic which has now lasted nearly a year cannot be regarded as a mere passing epidemic, while, on the other hand, it cannot be considered as of a very menacing character, since during so long a period it has given rise to only 2797 deaths—*i.e.*, less than ten per diem, if we compare the total mass with the duration. Females, it will be observed, have constituted only about a third of those attacked, as well as of those who have died. At Tambow, in the neighbourhood of Moscow, the epidemic has declined, but still continues to excite uneasiness. M. Briquet cited some facts in corroboration of the opinion contained in the recent report of M. Fauvel, that cholera may remain stationary in a country for a while, ceasing during the winter, and reappearing in the hot weather; and there is good reason to suppose that the epidemic now observed in Russia is a simple reappearance of the epidemic of 1865, not yet exhausted there.

In the *Gazette Hebdomadaire* of the 11th inst., M. Dechambre makes some interesting observations in relation to the "Medical Constitution" of Paris which may have their useful application among ourselves. He says that he does not regard the resumption of the publication of the Weekly Bulletin of Deaths as a matter of much consequence, for, in spite of the improvements that have been made in it, and the pains taken with it, it can never give other than a very incomplete, very vague, and, in several respects, an incorrect idea of the public health.

"In the first place, it is only a necrology, and it has been amply shown that the number of deaths, according to categories of diseases, by no means exhibits the relative frequency of each category. The prevalent diseases are not the prevalent deaths. The second term being known, we have to deduce the first from it by an approximative calculation of the degree of fatality attaching to different diseases. Such a calculation is impossible by reason of another defect in this description of statistics—viz., that they bear on a symptom or groups of symptoms rather than on defined diseases. According to what arithmetical computation, for example, can we deduce from the number of deaths from 'diarrhœa' or 'puerperal affections' during a certain period of time the number of cases of diarrhœa or puerperal affections which prevailed during such period? Again, can we admit somewhat rashly the accuracy of the declarations, on the fact of which the diagnosis has been adopted? Lastly, the number of causes of death not susceptible of being arranged in so summary a return as this is such that it often exceeds the two-thirds, and even the three-fourths, of the sum total of the deaths. What leads us to make these remarks is that, precisely at this time, the Bulletin fails to give in any manner a representation of the Medical Constitution of Paris. Everyone must be aware that the dominant feature of this Constitution consists in the frequency of gastro-intestinal, bilious, or choleriform affections. Two of the statistical elements of the Bulletin correspond to this group—cholera and diarrhœa. Cholera figures for two or three cases, and diarrhœa for the thirteenth or fourteenth part of the specified causes of death, which are, as we have just said, only a third or a fourth of the total mortality. Moreover, it is by no means certain that the cases of 'diarrhœa' of the Bulletin are those which belong to the present diarrhœas of the constitution, for these last scarcely prove fatal, and much less so even than in *cholera nostras*. It is, therefore, allowable to suspect that the diarrhœa patients killed by the statistical bulletin were at least in part the subjects of phthisis or typhoid fever. Diarrhœa, indeed, is far from being the proper and significative characteristic of the intestinal affections observed at the present time. In the first place, it may be absent altogether, and then we are not able to state, speaking rigorously, that a certain disorder is a character of a Medical constitution. It is only a symptomatic expression of it; and it is the nature of the diarrhœa which truly characterises, or rather which contributes by its concordance with other morbid phenomena to characterise, what is termed the peculiar genius of the prevailing disease. The Bulletin says nothing of all this, and we may add that it could say nothing of it, its wrong not being in not speaking, but in being dumb from its birth."

M. Dechambre states that, from its symptomatic point of view, the derangement of the digestive organs now prevailing in Paris is especially characterised by *embarras gastrique* and colic. These he describes in a detail which we have not space to follow, and then observes that, in a clinical sense, the nature of the affection may be regarded as a bilious derangement (*état bilieux*), sometimes remaining simply as such, and at others rising to the height of a "bilious fever"—most of the patients, in fact, exhibiting sub-icteric complications. He warns Practitioners against the temptation to the employment of antiphlogistics, which the acute character of some of the symptoms, such as fever and abdominal pain, would seem to justify. Still, leeches or cupping-glasses may sometimes be applied to the abdomen with advantage when the pain is not only severe, but continuous and limited in extent, indicating a pathological action supervening on the principal affection. But neither the full, painful distension nor severe colic should deter from the rapid employment of evacuants, whether accompanied by local antiphlogistics or not. An emetic should be followed by laxatives, and although the colics may be temporarily increased, benefit will soon ensue.

PARLIAMENTARY. — CHOLERA AT SECUNDERABAD — REPORTED CHOLERA BETWEEN CRONSTADT AND THE THAMES—VACCINATION ACT—UNIVERSITY OF LONDON—CONTAGIOUS DISEASES ACTS—METROPOLIS WATER BILL—FOREIGN DECORATIONS—DR. EDMUNDS'S SUPPOSED CASE OF CHOLERA.

In the House of Commons, on Thursday, August 10,

In reply to Mr. Brady,

Mr. Grant-Duff said he was not aware that one-sixth of the whole number of men of the 18th Hussars, stationed at Secunderabad, besides women and children, had died of cholera. He was informed that the whole number that had died was thirty-nine, including one woman and four children. The whole number of men was 386. The cholera made its appearance on May 25, and was supposed to have been brought in by travellers. On June 23 the regiment was perfectly healthy. Evidence very unfavourable to the Secunderabad Barracks was given before the Royal Commission of 1863, and in 1866 they were reported upon not very favourably, though he was also bound to say not very unfavourably. In 1869, however, a very much better report was received; for during the virulent cholera epidemic of 1868 they seemed to have been extraordinarily healthy.

On Friday,

Mr. Stapleton asked the Vice-President of the Council whether it was true that two cases of cholera occurred on board ships which arrived in the Thames on Saturday; that there was no detention or disinfection at Gravesend, and that the clothes of the deceased sailors were landed.

Mr. W. E. Forster was glad to be afforded this opportunity of stating the real facts of the case. Two ships arrived in the Thames on Saturday from Cronstadt, and in each ship a man had died of cholera. From inquiries he had made he learnt that they died at Cronstadt. The clothes of one of them were landed almost immediately, and afterwards destroyed at the office of the Board of Works. The clothes of the other man were burnt on board the ship. He would state the purport of the different orders which had been issued with regard to cholera by the Privy Council. An order was gazetted on July 29, and issued on August 1, empowering the nuisance authorities in England to remove to a Hospital any persons suffering from cholera who might arrive at any English port,

and to cause the clothing and bedding of such persons to be disinfected, and if necessary destroyed. They were likewise empowered to cause the ship to be disinfected. A similar order, dated August 3, was issued for Scotland. An order was issued on the same day enabling the Customs officers to prevent the entry into any port in England or Scotland of vessels coming from a port infected with cholera, till the local authorities had had an opportunity of exercising the powers conferred upon them by the order he had just quoted. The department received an intimation respecting the ships referred to about two o'clock, and about eleven o'clock that evening another order was issued prohibiting the admission into port of any vessel on board of which cholera had occurred until the clothing and bedding had been destroyed.

The Vaccination Act (1867) Amendment Bill passed through Committee.

On Saturday, amongst the votes in Committee of Supply was one of £2320 for the University of London buildings.

On Monday,

In Committee of Supply on the army estimates, on vote nine a long discussion on the working of the Contagious Diseases Acts was raised by Mr. W. Fowler, who moved to omit the pay of the police employed under the Acts. He took the opportunity of discussing the recent report of the Commissioners, and drew from it materials for impugning the principle of the Acts. Mr. Henley also spoke earnestly against this legislation, and warned the House against departing in these matters from moral principles founded on Christianity.

Mr. Bruce, on behalf of the Government, urged that it was impossible for them to sweep away those Acts at once in the face of the evidence as to the diminution of vice and disease which they had brought about, and of the admitted necessity to replace them by legislation of a wider character, as to which the Government had not had the opportunity yet to make up its mind.

Mr. Tipping approved the general working of the Acts, and with much antiquarian learning—going back as far as forty centuries—argued that repressive measures had always failed. Mr. Mundella, on the other hand, opposed the Acts, and quoted some of the most unsavoury details of the evidence against them.

Mr. G. Gregory complained of the unfairness of calling on the House to decide in the absence of the evidence, and Mr. Percy Wyndham condemned the not always unintentional misrepresentations of the opponents of the Acts; while Mr. R. Gurney supported the reduction of the vote with a view of stopping compulsory examination; and, after some observations from Mr. Cardwell, deprecating precipitate judgment, Mr. Fowler's amendment was negatived by 56 to 44.

On Tuesday, in the House of Lords,

The Metropolis Water Bill was read a second time.

In the House of Commons,

Mr. Eastwick asked the First Lord of the Treasury whether he would recommend that the officers who specially distinguished themselves in serving with the ambulances during the late war between France and Germany might be allowed to accept and wear the decorations tendered to them by foreign Governments.

Mr. Gladstone said that he could not promise any relaxation in the existing law until the Secretary of State for Foreign Affairs had carefully inquired into the matter, in order to see whether the rules could be modified for the public advantage.

Mr. Denman asked the Vice-President of the Council whether his attention had been called to a letter signed by a Dr. Edmunds, and published in a newspaper that morning, stating that he had been called in to attend a typical case of Asiatic cholera.

Mr. W. E. Forster: I am informed by the Medical Officers of the Privy Council that immediately on seeing this letter Dr. Buchanan was sent from the office to examine the case, and make a report. I am very glad to say, from that report, that there is reason to believe it was not a case of Asiatic cholera, although there were symptoms at first that might have excited suspicion that such was the case. The patient seems to be a respectable artisan, employed in some works, and also a school teacher, and was taken ill last night on returning from a school treat. Certainly, when Dr. Edmunds was called in this morning the patient had a bad attack of cholera, and was in a state that might naturally have excited suspicion that the attack was Asiatic in its character, though there is now reason to suppose that it was not so; at any rate the patient is now much better. I rather regret that Dr. Edmunds did not wait a few hours before writing to the *Times*, because if he had so waited I do not think he would have thought it necessary to write a letter causing needless alarm. But whether he was right or not in doing this, there is one matter to which I should wish to call the attention of Medical gentlemen throughout the metropolis and the kingdom generally. Dr. Edmunds appears to have contented himself with sending this letter to the *Times* instead of communicating with the sanitary authorities of Marylebone, which, undoubtedly, it was his clear duty to do. If Medical gentlemen entertain any suspicion of such cases in their own neighbourhoods they should immediately send to the sanitary authorities, whose duty it is to take all proper measures for disinfection.

The Vaccination Act (1867) Amendment Bill was read a third time and passed, an attempt to strike out the clause relieving a recalcitrant from further penalties after he has been fined 20s. being defeated by 57 to 12.

ARMY MEDICAL DEPARTMENT.

The Director-General presents his compliments to the Editor of the *Medical Times and Gazette*, and begs to inclose for insertion a list of candidates of H.M.'s British Medical Service who were successful at the competitive examination in February last, and who have passed through a course at the Army Medical School.

Army Medical Department, August 9.

List of the Candidates of H.M.'s British Medical Service who were successful at the Competitive Examinations held at London in February and at Netley in August, 1871, *after having passed through a Course at the Army Medical School, Netley.*

Order of Merit.	Names.	Studied at	Number of Marks.
1.	Crombie, A.	Edinburgh	5965
2.	Stuart, G. B.	Melbourne and Edinburgh	5775
3.	Irving, L. A.	Dublin	5335
4.	M'Cracken, J. A.	Belfast	5320
5.	Beamish, J. M.	Cork	5150
6.	Clery, J. A.	Dublin	5060
7.	Cruikshank, B.	Aberdeen	5040
8.	Coats, J.	Glasgow	5005
9.	Williamson, J. G.	London	4640
10.	Bradford, H.	London	4630
11.	Fawcett, W. J.	Dublin	4482
12.	Joynt, H. W.	Dublin	4475
13.	Saunders, W. E.	London	4470
14.	Leckie, D.	Glasgow	4342
15.	Charlton, W. J.	Dublin	4310
16.	Ruxton, J.	Aberdeen	4300
17.	Anthonisz, A. H.	Aberdeen	4185
18.	Tobin, W.	Dublin	4170
19.	Molloy, O.	Belfast	4145
20.	Moylan, W. J.	Dublin	4120
21.	Exham, R.	Cork	4056
22.	White, W. L.	Edinburgh and Aberdeen	4016
23.	M'Namara, J.	Cork	4013
24.	Harman, R.	Dublin	3980
25.	Wilson, J. B.	Sheffield, Edinburgh and Galway	3860
26.	Leake, G. D. N.	London	3812
27.	Martin, J. W.	Dublin	3812
28.	Robinson, R. H.	Dublin	3683
29.	Gabbett, P. R. D.	Montreal and London	3677
30.	O'Connell, M. D.	Cork	3636
31.	Palmer, C. de M.	Dublin	3566
32.	Ward, E. C. R.	Dublin	3558
33.	Finlay, W.	Dublin	3537
34.	Sullivan, W. P.	Dublin	3513
35.	Joynt, E. H.	Galway	3486
36.	Dickson, J. R.	Kingston, Montreal, and London	3450

Agnes Norman, the infant-murderess, was on Monday sentenced to ten years' penal servitude.

Modification of Canquoin Paste.—M. Demarquay employs the following modification of this celebrated caustic, which renders it very easy of application, whether it be old or recent:—℞ Chloride of zinc, 10 parts; glycerine, 4; and flour, 20 parts.—*Union Méd.*, Aug. 12.

BRITISH MEDICAL ASSOCIATION.

VISIT TO PLYMOUTH.

Concluding Notice.

(*From our Special Correspondent.*)

The meeting which has just concluded has been, on the whole, most successful, and much enjoyed by all the members of the Association who were present. The success, however, has been due rather to the excellent provision made by the local members for the enjoyment of the surrounding objects of interest, both on land and sea, than to the interest attaching to the business of the meeting.

After the general meetings, and the addresses on Medicine and Surgery were over, the members, with one consent, availed themselves of the many opportunities afforded them of escaping from the business of visiting the various sections, which were consequently miserably attended throughout. Excursions were organised, and ready to start daily, any time between noon and five o'clock, and large numbers visited the objects of interest in the vicinity, some going on steamers up the rivers Tamar and Tavy, which afford some scenery not to be equalled in England; others making bolder flights, and landing on the isolated rock whereon stands the Eddystone lighthouse, which, owing to the calmness of the sea, was fortunately approachable.

On Wednesday evening the President gave a *soirée* at the Royal Hotel, which was most numerously attended by both ladies and gentlemen, many of the non-Professional inhabitants being present to do honour to the Medical guests. Dr. Johnson there exhibited some microscopic specimens of diseased arteries of the kidneys, to which he had alluded in his address in the morning, and many beautiful photographs of Plymouth and the neighbourhood decorated the walls. The President had, moreover, provided some very excellent part-singing for the entertainment of his guests, which was executed admirably by the Plymouth Vocal Association.

On Thursday morning, at eight o'clock, about 120 gentlemen sat down to an excellent breakfast given by the Temperance League; after which, Mr. Bowly, the President of the League, addressed the assembly on the subject of total abstinence. Several Medical men spoke on the occasion, their opinions for the most part being, that moderation in indulgence, and not total abstinence, was the maxim to be most strongly advised.

At the third general meeting, the report of the Reform Committee, of that on the Observation and Registration of Disease, and the draft report of the joint Committee of the British Medical and Social Science Associations were read and adopted. It was also resolved that the Committee on the Observation and Registration of Disease should be reappointed.

Professor Lister, in his Address in Surgery, then spoke for two hours of his antiseptic system of treatment as applied in that science. He attributed its failure in some quarters to the non-acceptance of the germ theory, and to the want of a practical knowledge of the manner in which the treatment should be applied, being himself perfectly satisfied of its great value and entire efficiency in Surgery. Noticing the difficulties he had had to contend with in selecting appropriate materials as vehicles for carbolic acid, he gave a description of the fabrics he now uses, and of the method of applying them, illustrating the manner in which this was done. Mr. Lister has now ascertained by experiment that it is not necessary to use, for the production of spray and the cleansing of sponges, a solution of carbolic acid stronger than one part to a hundred.

All the sections were very thinly attended; nevertheless, the presidents and secretaries stood nobly to their work, and in some instances very interesting discussions took place.

In the Medicine Section a paper was read by Dr. Barham, of Truro, on the health of Cornish miners, which contrasted unfavourably with that of the miners in Northumberland, Durham, and Staffordshire, chiefly owing to the early age at which children in the former county are sent to work in the mines. Dr. Murray and Dr. Johnson read papers on cholera, their views on its pathology and treatment being antagonistic; but while Dr. Murray appears undecided in his selection of remedies, Dr. Johnson is energetic in declaring that the eliminative treatment is the only safe method to be adopted. After some discussion on the use of purgatives in the early stages of cholera, Dr. Murray stated that, while he was in India, out of 505 Medical men only eight were in favour of the use of purgatives. The subjects of other papers read in this section were:—"The Therapeutics of Rheumatism and Neuralgia," by Dr. De Berdt Hovell; "Paralysis of the Bladder treated by the Continuous Galvanic Current," by Dr. Althaus; and "Koumiss," by Dr. Jagielski.

The Surgical Section was the most fully attended of any, and some interesting papers were read and amply discussed. Mr. Southam, of Manchester, read a paper on "Excision of the Tongue," for the more effective performance of which he has contrived a forceps which completely grasps the tongue at its root, confining the action of the écraseur to the part requiring to be removed. Mr. Lund read a paper on "Antisepticity in Surgery"; Mr. Furneaux Jordan one on the "Extension of Inflammation from the Epididymis to the Urethra"; Mr. Steele, of Clifton, one on "Excision of the Scapula"; Dr. Rawdon Macnamara read a paper on "The Treatment of Aneurism by Compression"; and Mr. MacCormac read some "Notes on Ambulances."

In the Midwifery Section, under the presidency of Dr. Beatty, papers were read—by the President on "Fibro-Cystic Disease of the Uterus," and on "The Radical Cure of Retroflexion of the Uterus"; by Dr. Meadows on "The Treatment of Fibrous Tumours of the Uterus"; by Dr. Barnes on "Hypertrophous Elongation of the Cervix Uteri"; by Dr. Tilt on "Hysteria"; and by Dr. Swayne on "The Treatment of Hæmorrhage after Abortion."

In opening the Public Medicine Section, Dr. Stewart, the president, gave a most interesting address on the subject of sanitary reform, giving especial emphasis to the fact that the Profession now fully recognise that Medical men live by the cure of disease, and not by disease itself. Some very good papers were read in this section, and the attendance was fair. Dr. J. Ingleby Mackenzie read a paper on "The Climate of Sidmouth," and Dr. Merrifield one one "The Meteorology of Plymouth." Papers were read, also, on "Poor-law Medical Reform," and on "Provident Dispensaries"; and a very interesting and instructive one on "Sewage Irrigation," by Mr. Hope, who appears to be a thorough master of the subject. Dr. C. Bell Taylor had made arrangements to read a paper on the "Contagious Diseases Acts," but, owing to some informalities, the President of the Section decided that it could not be heard. When this decision was arrived at, Dr. Taylor imputed motives to the President for the repression of the paper which provoked from him a grave and well-merited rebuke.

The public dinner on Thursday evening was well attended, about 150 being present, but the arrangements were defective; much annoyance being caused to some worthy members of the Association by their being left to find seats wherever they could, instead of having places provided for them within the magic circle of which the President was the centre. The waiting was so bad that it was difficult to obtain anything, and the "far-famed band of the Royal Marines" played so loudly as almost to render conversation impossible.

The annual museum, under the efficient management of Mr. Henry Greenway, was excellently arranged, and many objects of great interest were to be found there. Most members, with much curiosity and care, examined Mr. Sayre's apparatus for the treatment of hip-joint disease, and Mr Mayer who exhibited it, demonstrated its application on a little patient in the Royal Albert Hospital, when the instantaneous relief from pain and anxiety exhibited by the child fully proved its efficacy. Messrs. Mayer and Meltzer also exhibited amongst numerous other instruments a special support contrived by Dr. Taylor, of New York, which, while preventing forward motion of the trunk, permits all others to take place freely.

Dr. Steele, of Clifton, exhibited a small flexible probe consisting of a thin rod of guttapercha capped by a piece of silver. Some very striking coloured drawings by Mr. Jonathan Hutchinson were present, showing the ravages occasioned by syphilis after some cases of vaccination. Mr. Greenway exhibited a model of a Hospital in which each patient is to be isolated in a glass compartment ten feet square. Among the exhibitors in the drug department the most noticeable were Messrs. Southall, Son, and Dymond, of Birmingham, who showed beautiful specimens of cinchona and opium; Messrs. Howard, the well-known quinine manufacturers; and Messrs. Balkwill and Son, local chemists.

The vestry of Marylebone have given a gratuity of ten guineas to each of their sanitary inspectors for the extra services performed by them during the prevalence of small-pox.

BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

REPORT OF THE FORTY-FIRST MEETING.

Edinburgh, August 9, 1871.

SECTION D.—BIOLOGY.

DEPARTMENT OF ANATOMY AND PHYSIOLOGY.

(Continued).

The Cervical Vertebræ of the Steypirethyr.

By Professor Turner, M.B.

Dr. Turner first described the cervical vertebræ of a large female whale stranded at Longniddry in 1869, and also the cervical vertebræ of a large female steypirethyr stranded at Northmaven, Shetland, in October of the same year, many of the bones of which are in his (Professor Turner's) possession. After giving the principal measurements of the vertebræ of the Longniddry steypirethyr, the author went on to state that the transverse process of the atlas was not perforated by a foramen. Those of the second, third, fourth, fifth, and sixth, each possessed a large oval foramen at the root. The seventh cervical vertebra had only its superior transverse process well developed; the inferior was marked simply by a slight ridge on the body of the bone. In the Northmaven specimen the inferior transverse process of the sixth vertebra was only partially developed, so that it did not give the superior process, and the boundaries of the ring were imperfectly formed. The steypirethyr is not an uncommon whale on the Scottish coasts. In addition to the two specimens already referred to as obtained in 1869, the author had identified the great whale stranded at North Berwick in October, 1831, dissected by Dr. Robert Knox, and the skeleton of which is in the Museum of Science and Art, with this species. Another specimen of the species was a whale stranded at Aberdour in July, 1858, which he had been able to identify from the nasal bones preserved by Dr. M'Bain.

The Cervical Vertebræ in the Cetacea (the Pike-Whale, the Great Rorqual, Narwhal, and Pilot-Whale).

By Professor Struthers.

The author dealt mainly with the conditions of stiffness and mobility of the vertebræ, and the various degrees of development of the transverse processes. The seven vertebræ were present as a mammalian affinity, and their conditions are modified by function. The Surgeon gives his patient a movable or a stiff joint, according as he desires, by practising either rest or motion, and the same law would no doubt act in the whale's neck. The great ring of the transverse processes contains a large vascular plexus, as it contains an artery in man; but that is not its meaning. It is the walls of the ring which are developed for ligamentous and muscular attachments. The lower processes he divided into three stages, and compared these to three stages of the corresponding parts in man. The arches of the vertebræ, supposed to show a difference between the razorback and sibbaldins, he showed to differ so much in his two specimens of razorback that little reliance could be placed on this character. The ligaments between the front vertebræ had been dissected with difficulty, and the author demonstrated their modifications in the whales. One of the razorbacks was the Peterhead whale, in which he had found the rudimentary bony hind limb, the sixteenth pair of ribs, and the rudimentary muscles of the fingers; the other was a larger one from Caithness. The pike-whale, showing the dissection of the soft parts of the neck, had stranded at Aberdeen last year. The next specimens exhibited were from the narwhal, male and female. Possibly in adaptation to the possession of the great tusk, the vertebræ were movable, while in the female, without the tusk, they were less movable. The male showed also an additional joint, on the same side as the tusk, between the atlas and axis. Passing next to the stiff-necked whales, Professor Struthers exhibited a large series of specimens from the globiocephalus, obtained from the flock which stranded near Edinburgh some years ago. They showed progressive anchylosis of the vertebræ, and degeneration of the transverse processes. The younger ones showed even the rudiments of the epiphyses of the vertebral bodies, or vertebræ themselves rudimentary. The last neck exhibited was that of a "right" whale, the interest attaching to which was that, though probably a Greenland "right" whale, it presented more of the characters of the "right" whale of the South Sea. He had gone to dig up the buried bones of a whale in the nursery of Mr. Roy, of Aberdeen, and his disappointment in finding it only a globiocephalus was more than compensated by his seeing this neck lying open in the nursery, and Mr. Roy had kindly presented it to him. The conclusion he drew from the study of this neck was that the supposed differences between the "right" whale of the North and South Seas were possibly not such fixed characters as had been supposed. The Professor, in concluding, alluded to the great difficulties, and even risk to health, attending the dissection of these enormous animals. It was difficult to say whether it was worse on the sea-shore in a wet day, or in the confined and putrid atmosphere of the College-room. No one who had not tried it could realise the difficulties that attended the research.

Professors Thomson, Turner, and Macalister, and Dr. Murie joined in the discussion, Professor Turner expressing that the series of specimens exhibited were the finest he had ever seen. The variations of construction in the cetacea were numerous, and a large collection of such specimens was important. A special vote of thanks was awarded to Dr. Struthers.

Composition of the Carpus in the Dog.

By Professor Flowers, F.R.S.

A short descriptive paper read for Mr. Flowers by Professor Allen Thomson.

The Bearing of Muscular Anomalies on the Darwinian Theory of the Origin of Species.

By Professor Macalister, M.D.

Professor Macalister said there were usually adduced three arguments from anatomy in support of the evolution theory of the origin of man. The first of these is derived from embryology, the second from rudimental structures, and the third from anomalies. The object of this paper is to endeavour to determine the precise value of the last of these arguments. This may be stated thus:—It is the experience of anatomists that structures are variable, that in scarcely two subjects are the parts similar to each other, and that often very great varieties are noticed. As these varieties simulate the normal arrangements in lower animals, it is inferred by some that they are evidences of a genetic affinity. The first point to determine is, Do the anomalies of parts in man resemble the normal structures of lower animals? The evidence in determination of this point were drawn by the author from the muscular system, and he classified muscular anomalies according to their relation to lower animals. The first class consists of those separate muscles which are normal in lower animals, and only rarely present in man—such are the muscles known as occipito-scapular, peroneus, levator claviculæ, etc. The second class consists of those separate muscles which exist as anomalies in man, but do not exist as normal in lower animals, such as the sixteen abnormal laryngeal muscles described by different authors. The third class consists of such muscles as are distinctive of man, and which are sometimes anomalously absent in him, and, still more rarely, of some of the peculiarly human muscles, rarely present as anomalies in lower animals. The fourth class consists of muscles common to man and other animals, but which normally are differently arranged in both. In man such muscles are often found arranged according to lower animal types, and this class contains by far the largest number of anomalies. How to account for these anomalies has long been a point of dispute. There are two hypotheses which seem competent to account for them. One large series like the second class is accounted for on functional grounds; but this hypothesis is incompetent to explain the occurrence of all, as some anomalies are sources of weakness, and absolutely destroy function. That function is a factor, however, seems plain from three considerations:—1. Muscles which have a great variety of function have a wide range of variation. 2. Muscles which have no function, like those of the whale's paddle, are very variable. 3. Those muscles which have single definite functions vary very little. The second hypothesis is that of reversion, that such anomalies are produced by the tendency to revert to some earlier structural condition of some former stage of parental condition.

In the discussion which followed, Mr. Bogg said the question was—What was the aim or intention of the anomalies referred to? He regarded man as a little universe, having in his mind as well as his body the characteristics of the land of creation, and having these anomalies retained in his structure to indicate, not that he was evolved from the lower animals, but that the Creator evolved the lower animals from himself, and that as He could not create any animal which had no connexion with the Person who produced it, they could not exist without having in their own structures types of those which existed in the Creator, and consequently in man, who was the image of the Creator.

Professor Macalister preferred to adhere to a negative

rather than the positive side of the argument. He thought they were shut up at present to the evolution hypothesis, and the proper way to pursue this investigation further would be to tabulate all the muscular anomalies in man, and do the same in regard to the lower animals, and compare the two, so as to see whether the grouping of anomalies in man was the same as in the lower animals. He had drawn out such a table regarding man, and would leave it to someone better qualified than he was to make out a similar table regarding the lower animals.

Working Model of the Circulation.

By Professor Rutherford, M.D., F.R.S.E.

Professor Rutherford made a communication descriptive of an apparatus he had invented, and which was before the section for demonstrating certain points in the mechanics of the circulation, the phenomena of the pulse and the pressure of blood. He illustrated from it how the pulse is produced, why it is that with dilated capillaries there is a pulse in the veins, and why there is no pulse in the veins when the capillaries are contracted. He further showed why it is that the arterial is higher than the venous pressure, and the causes of variation in the amount of the arterial pressure.

On the Anatomy of the Thoracic Viscera of the Elephant.

By Dr. M. Watson.

On the Magnetic and Diamagnetic Properties of the Blood.

By Dr. Arthur Gamgee, F.R.S.E.

On the Existence of Hæmoglobin in the Muscular Tissue, and its Relation to Muscular Activity.

By E. Ray Lankester.

On Bacteria in Water.

By Dr. Ferrier.

Dr. Ferrier gave an account of certain experiments made by him in conjunction with Dr. Burdon-Sanderson, with a view to discover the circumstances which determine the existence of bacteria in the liquids and tissues of the body. The paper had reference to certain results obtained in the course of an investigation into the ultimate nature of contagion. It was shown that in the test-liquids which they used for the detection of organisms in contagious fluids, no spontaneous evolution of organisms takes place. The occurrence of organisms in these liquids was in proportion to the degree of external contamination. Fungi are the chief form which is derived from the air. The occurrence of bacteria is, however, due to water. It was shown that every kind of water, with the exception of freshly distilled water, teems with invisible germs of bacteria. These cannot be detected by the microscope, or by the electric beam in the manner adopted by Professor Tyndall. The purest-looking ice-water was found to contain as many germs as others which had not the same apparent purity. Different varieties of water possess the zymotic power, as they term it, in different degrees. The water supplied by the London water companies was examined, and different degrees of bacteria impurity were found to exist. They further showed that the animal liquids and tissues do not in the normal state contain the germs of bacteria, and that the occurrence of these, and consequent putrefaction, was due to contact with surfaces of ordinary water. Bacteria seemed to be the pioneers, if not the producers, of putrefaction. It was found that meat, milk, wine, etc., do not putrefy if they are kept from contamination with water, or any surface which has not been superheated, or rendered innocuous by some anti-zymotic which is fatal to the life of bacteria. The experiments further showed that there is no developmental connexion between bacteria and torula; consequently Hallier's theories fall to the ground.

Some New Experiments relative to the Origin of Life.

By Dr. Charlton Bastian, F.R.S.

Dr. Charlton Bastian described some new experiments, the results of which led him to the conclusion that living matter might arise *de novo*, and that this living matter might go on to the development of certain common organic forms, just as surely as any speck of crystalline matter in a fluid might take on and assume certain definite characters which belonged to the saline substance in its crystalline condition. His experiments showed that living organisms had been found in fluids that had been exposed to a temperature higher than was sufficient to destroy germs.

On the Relative Powers of various Substances in Preventing the Generation of Animalcules, or the Development of their Germs, with Special Reference to the Germ-theory of Putrefaction.

By Dr. John Dougal.

In the discussion on the above papers, Dr. M'Kendrick said that the experiments he had made did not warrant him in adopting the conclusions on either side of the question. With regard to Dr. Bastian's experiments, he observed that the germs or ova of living creatures must always be more delicate and likely to be destroyed than the creatures themselves.

Dr. Lankester considered the question to be still open. He did not see why theologians should denounce the supporters of spontaneous generation, because the Church in former ages had believed that organic beings might arise from inorganic substance. Dr. Bastian wished them to believe that his experiments had proved spontaneous generation; but there were other and more interesting spheres of observation, and he (Dr. Lankester) thought that it was in the slimy deposits in the depths of the sea that they must look for the solution of the difficulty. The question should not be regarded as irreligious. Philosophers were quite justified in looking for the truth, and no theory or view should be suppressed that might at last turn out to be true.

Mr. Leighton, Liverpool, said that in all the discussion it was assumed that what was inorganic was without life; but this opened up the question of matter and spirit; and on what ground, he asked, did they assume that matter was inert?

On the Origin and Sources of Fibrin in the Animal Economy.

By Dr. John Goodman.

Dr. Goodman's paper was put in and received as read; after which the President closed the Department with some observations on the theories of the origin of life. He held that as yet the representatives of the different theories had left much undecided, and that the whole question remains *sub judice*.

On the whole, the work of the Department of Anatomy and Physiology was worthy of the section. It was solid, laborious, and earnest.

DEPARTMENT OF ANTHROPOLOGY.

The Department of Anthropology is now amongst the most popular of the meetings of the Association, and with a little more care in the selection of papers would be one of the most interesting and useful. We shall cull from its proceedings this year the passages that are, to our taste, most deserving of notice.

PROFESSOR TURNER'S ADDRESS.

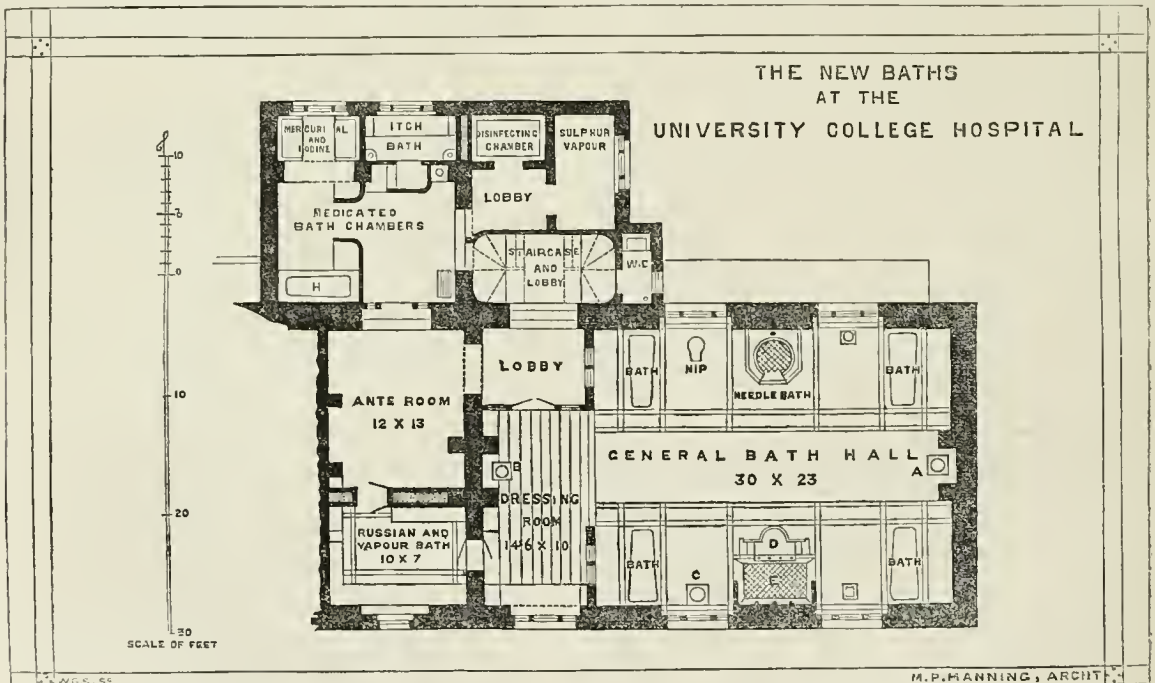
Professor Turner, who presided over this department, opened with an address, in the course of which he said:—Those who are conversant with anthropological literature will, I doubt not, have little difficulty in calling to remembrance various writings in which errors, not only in the description of objects, but in the general conclusions arrived at from their examination, would have been avoided if the previous trainings of the authors had been of a wider nature—if they had fully appreciated the import of the processes of growth and development; nay, even the aberrations from the normal state through pathological changes occurring during embryo or adult life, to which man is subject in common with other vertebrates. It is, I trust, needless for me to enlarge further on this topic, so that we may next proceed to inquire briefly into the part which an anthropological department may play in the proceedings of the British Association. In societies devoted solely to the consideration of anthropological questions, and acting as independent bodies, such as the Anthropological Institute of London, or the corresponding society in Paris, all the subjects included within and constituting the science of man naturally fall within the scope of inquiry, and come under discussion as opportunity offers. But in this department of the Association we have not that complete independence of action which these societies possess. We are only members of a still larger body, and the functions which we perform must be duly subordinated to the common good; and, owing to our recent introduction into the programme of its proceedings, much of the ground which many would consider we were fairly entitled to cover has been largely preoccupied by other and older departments. As the physical aspects of our subject are based on anatomy and physiology, many of the papers on the structure and function of the human body and its constituent parts may doubtless be claimed by the Department of Anatomy. Other papers in which comparisons are instituted between human and animal structure, the zoologists may consider they have a title to. To some extent, also, the habits of man and numerous important questions of a social nature are discussed in the section of Economic Science and Statistics. The time when man first appeared on the face of the earth, the twenty-two formations in which his remains and those of contemporary animals are found, may come under the consideration of the

geologists. As our subjects, therefore, dovetail so intimately with those other sections of the Association, questions may occasionally arise, whether papers submitted for perusal come more appropriately within their province or within ours. Probably the most satisfactory mode of solving this difficulty would be for the different sections concerned to come to a common understanding that all papers which treat of the origin and progress of mankind should be forwarded to this department. Again, if a separate Ethnological Department or subsection were formed, as has been suggested, or even ethnological papers were read, as was for so many years the case, in the Geographical Section, not only would all those communications on the characteristics of the different varieties of man, or their distribution over the globe, but even papers on comparative philology, and on questions appertaining to the early history of man, and to his primitive culture, in all probability be subtracted from our proceedings. Without doubt, all ethnic questions form an integral part of anthropological study, for ethnology is one of those subjects which form the groundwork of our science; and as it is an axiom that the whole is greater than and includes the part, all these questions naturally fall to be discussed in this department, and should not be divorced from their natural allies. The decision of the General Committee, that the ethnological papers should be transmitted to this department, was but to restore them to the place they originally occupied in the proceedings of the Association—(applause)—for in its early years ethnology was a subdivision of Section D. The brief history of this department teaches us that its struggle for existence has been a severe one. It was only after the dissociation of the ethnological papers from the Geographical Section that our proceedings acquired much vitality, and to remove them from us now would be a severe blow to our usefulness. As the "noblest study of mankind is man," the subjects which come within the scope of our inquiries in this department are amongst the most important in which a body of scientific men can be engaged. Let us approach their consideration with a spirit of due humility and reverence; let our discussions be so regulated that our desire may be, not to attain merely a personal victory in argument, but, if possible, to get at the truth. And if we claim to be called anthropologists, let not men say of us that our right to be so regarded is rather owing to our proficiencies, in the old Aristotleian meaning of the term, as discussers of persons—mere gossips—than to our qualifications as patient and humble students of the great science of human nature.

On the motion of Dr. Sharpey, a vote of thanks was given to Professor Turner for his address, and carried with acclamation.

THE NEW BATHS AT UNIVERSITY COLLEGE HOSPITAL.

It has been said with great truth that one particular in which the therapeutic machinery of our English Hospitals falls lamentably short of that of Continental Hospitals, is in the matter of baths. The first step towards remedying this deficiency has now been taken at University College Hospital in the erection of a service of baths available for the treatment, not only of skin complaints, but a variety of diseases, such as rheumatism, paralysis, neuralgia, syphilis, sciatica, and many others. These baths, which are now complete, have been provided through the energy of Dr. Tilbury Fox, the Physician to the Department for Diseases of the Skin in the Hospital, and the Hospital authorities are to be congratulated upon such an important addition to their Institution. The cost has been about £1800. A good idea of the general plan and arrangements of the baths will be gathered from the accompanying illustration. The baths are entered by a staircase from the



out-patients' department of the skin infirmary. To the right is the entrance to the general bath-hall; to the left of the landing that to the section set apart for the treatment of contagious skin complaints. The baths may, indeed, be regarded as consisting of two distinct portions. The itch and lousy patients will not be allowed to mingle with the others, not even in the waiting-room. This is an excellent arrangement. We may say that the great object has been to avoid the use of paint and woodwork as much as possible, and hence there is a large amount of cement-work. The walls are cemented, the partitions of most of the baths are made of brickwork coated with cement, and the floors are tiles, so that everything can be kept clean with little trouble. There is a special and separate drainage from the baths, with a good outfall into the main sewer in the adjoining street. The general bath-hall is thirty feet by twenty-three; it has attached to it a convenient platform where the patients can undress. There are four ordinary porcelain baths, in which simple alkaline, acid, bran, and such like applications will be made; a needle bath; a special douche bath, in which wave, solid column douches, and showers of different kinds may be given. This bath-hall is warmed by two large steam coils,

one at either end; the floor is tiled. The Russian bath is heated by radiation, and the flues are made of fire-tile, the object being to prevent any exposure of heated iron surfaces by contact with which the air might be more or less charged. There is special provision made for the admission of fresh air directly into the room, and the exact regulation of the warming current, which is gently warmed before it actually enters the room by being made to pass along the under surface of the ordinary fire flue. This room can also be used as a steam vapour bath.

In the other section of the baths there is a very compact arrangement; the bath on the left is the sulphuret of potassium bath. Adjoining this place is a box for steaming or fumigating an arm or a leg, as the case may be. Then come the boxes in which patients will be given mercurial and iodine fumigation-baths, and these are constructed on a novel principle. There is at the bottom an iron gas-chamber, which has a special flue of its own. The gas is used to heat the upper surface, upon which the mercury or antimony is placed, the vapour of which passes into the box above through special openings in the floor of this latter box, which is made of stone. There is a small space betwixt the upper wooden box and the lower iron gas-chamber. The box in which the patient sits is supplied with a steam-pipe, which enters beneath the stone floor of the box itself, and there is a special flue guarded by a valve for the egress of the steam and the vapours, and this flue joins the gas-flue above; a like arrangement is to be found in the "sulphur chamber." The itch bath is lined with cement, and has marble fittings, one being a marble seat upon which the patients will sit to rub in the parasiticide; whilst the water-supply is so arranged that the whole body of the patient can be freely and thoroughly rinsed from top to bottom after the proper treatment for the destruction of the acari has been effected.

The disinfecting chamber is intended to be heated to about 220° or 230° F., and provision is made for the passage of the contents that escape from within through the fire itself before being carried aloft. Sulphur and chlorine can be readily introduced into the chamber. This brief sketch will enable our readers to judge of the completeness and compactness of these excellent baths, which do great credit. We must not omit to mention Mr. Michael P. Manning, whose clever handiwork is seen in other Hospitals, and Messrs. Jenkes and Co., who have really done their work in a truly admirable and a most careful manner. These baths will well repay a visit.

HEALTH OF THE METROPOLITAN POLICE.

The report of Mr. T. Holmes, Chief Surgeon of the Metropolitan Police, on the health of that force during the year 1870, is incorporated with that of the Commissioner, instead of being addressed to the divisional Surgeons and circulated to them with printed copies of the monthly tables of sickness, as was done with the four previous annual reports. It has thus become a public official document, from which much interesting information may be collected.

The authorised strength of the metropolitan police on December 31, 1870, was 9160 men of all ranks, deducting from whom the men employed on special duties, public and private, there remained available for police duties proper a total force of 7889 men. This is the estimate of the Commissioner, but for the purpose of Medical statistics Mr. Holmes calculates the average annual strength from the number of men of all ranks for whom payment was made to the divisional Surgeons on June 30 and December 31, being respectively 8602 and 8797, giving a mean strength of 8700. Such a method of estimating the annual mean strength gives only an approximate result, as the numbers, being calculated on the maximum numbers under the care of each Surgeon during the half-year, exceed the actual average strength of the force. Adding the 455 men in the four outlying dockyards, who are under the care of naval Surgeons, the total force included in the "morning states of numbers sick, on sick leave, and detached," appears to be 9155. The method adopted by Mr. Holmes of calculating the average numbers of daily sick, is by adding together the sick on 100 days in the year taken indiscriminately from all seasons of it—viz., the first ten days in each month, except April and August. This gives—

On the sick list	231·44
On sick leave	37·95
Detached	38·21
	307·6

The total average daily loss from sickness, calculated in the same way, for the year 1869 was 340·9, the reduction being mainly in the number of detached men, though the other items also show a slight decrease.

This gives an average daily percentage of sick of all kinds of 3·3, or, deducting the detached men, of 2·9. The former figure is slightly lower than last year, 3·3 in place of 3·6, the latter a little higher, 2·9 in place of 2·8. Mr. Holmes then proceeds to explain that, in consequence of a slight accidental error in reckoning the total force in 1869—viz., the Woolwich Dockyard division having been enumerated twice over—each of these rates for 1869 appears one decimal point too high. This is evidently a clerical error, which, if the nature of the mistake in 1869 had not been stated, would not have attracted notice; but the strength for that year having been too high by the number of men at the Woolwich Dockyard, the ratios calculated on that strength would be too low, instead of too high. The conclusion, however, is correct that the total average loss from sickness in 1870 was ·4 per cent. less than in 1869, and the total average of men sick and on sick leave exactly the same.

The method of estimating the average daily sick appears to us to be an arbitrary deviation from the usual mode, and to interfere materially with any attempt at comparison with the Medical statistics of the army, in which the average daily sick is calculated from the numbers remaining in Hospital at the end of each week. This gives a sufficiently accurate result, taking one week with another, of the fifty-two weeks in the year. Mr. Holmes probably thinks that by making his calculations on the sick of 100 days he has a more extensive basis of observation than if he only took the last days of fifty-two weeks; but it appears to us that his hundred days, composed of the first ten from each of ten months, the other two months being entirely omitted, represent the average of the year much less accurately than do the fifty-two days on the system of weekly returns. Mr. Holmes's plan has certainly simplicity to recommend it, as, in order to divide any sum by one hundred, it is only necessary to tell off two decimal points from the right. The returns of the divisional Surgeons being furnished monthly, there would be no great difficulty in showing the total number remaining throughout the month, which, divided by the number of days in the month, would give the daily average for that month, and the sum of these averages for the year, divided by twelve, would give the average daily sick for the year with almost absolute accuracy, or the total number remaining throughout the year might be divided by 365. Comparing, as far as may be done under these circumstances, the average daily sick of the metropolitan police in 1870 and of the troops quartered at London and Windsor during 1869, we find the latter to be the greater by 1·1 per cent.

We find that among the police of the metropolitan divisions and Woolwich Dockyard, which are under the care of the divisional Surgeons, the strength being 8700, the total of cases treated was 6758, the total of men sick was 4642. The cases are, therefore, at the annual rate of 776·7 per 1000 of the strength, being 70 per 1000 in excess of the ratio of admissions among the troops at London and Windsor during 1869. The number of deaths was 42. The death-rate, calculated on the strength, 8595,(a) (omitting 105 men employed as public carriage attendants, the deaths occurring among whom not being entered in the morning states) is 4·88 per 1000. The total number of deaths was 44, which, on the total strength of 9155, gives a death-rate of 4·80 per 1000, which, compared with the death-rate of 8·28 per 1000 among the troops at London and Windsor in 1869, was remarkably low.

The number discharged with pension, on account of Medical unfitness, was 192, being 20·9 per 1000 on the strength (9155), the rate of invaliding in the Foot Guards in 1869 having been 26·05 per 1000. The voluntary resignations without pension or gratuity were 232, of whom those who resigned on account of ill-health form an unknown, but doubtless a very considerable proportion, which in future reports it would be well to estimate, as, in consequence of the police being able to leave the service when they please, any man who finds that the work does not suit his health can quit it for some other

(a) By a clerical error in text given 8585.

employment—a facility which does not exist in the army, and which, as remarked by Mr. Holmes, is too much overlooked in comparing the health of the metropolitan police with that of soldiers stationed in London.

The rates of mortality and invaliding from phthisis in the metropolitan police during 1870—viz., 1·86 and 3·49 per 1000, the numbers being 16 and 32 in the respective strengths (8595 and 9155), as compared with the losses by this disease among the Foot Guards in 1869—viz., 2·66 deaths, 10·28 invalids per 1000 men—show (from the death-rates being so nearly similar, and the invaliding-rates so strikingly different) what must be the influence on the health-returns of the police of the "unknown proportion" of the voluntary resignations without pension on account of ill-health. The subsequent history of men so resigning would, if traced, most probably show a marked prevalence of phthisis or other tubercular affections attributable to exposure on night duty, etc., and running on within a short period to a fatal termination. Mr. Holmes, however, is of opinion that the number of voluntary resignations is not sufficient to exercise any very great influence on the sick-rate, even allowing that all were for the cause of ill-health, which he says they were not; nor does he even believe any large proportion of them to have been so.

The police force certainly appears to enjoy a remarkable immunity from venereal diseases. Only twenty-three men were reported as suffering from such ailments, and were struck off pay while unable to do their duty. We are told, however, that the number suffering from concealed venereal diseases, but still able to do duty, is probably considerable, but is believed to have been diminished by a request which has lately been forwarded to the various Hospitals not to receive police-constables as out-patients without the sanction of the divisional or chief Surgeon expressed in writing. The fact of the men being deprived of pay while unfit for duty in consequence of venereal diseases implies, as almost a matter of course, that no man will voluntarily come before the Surgeon for such cause, and that those who do come under the notice of the Medical officer are most probably suffering from the more severe forms of disease manifestly disabling them. There being no prohibition on marriage among the police, the liability to venereal diseases must be very much diminished. The number of married men, however, is not mentioned in the report under notice, but, even allowing it to be the maximum observed among men in the same class of life, it is difficult to believe that the prevalence of venereal diseases among the unmarried men of the force is anything like fairly represented by the number given above. A policeman has immense facilities for getting Surgical advice and treatment gratis on every beat, and, however much we may admire the general efficiency of the force, and appreciate its protection to our lives and properties, we must decline to believe that the men composing it are such absolute purists in morals.

The list of deaths during the year includes two from scarlet fever, one from typhoid fever, and one from "fever." No death from small-pox. There is no statement of the causes of admission under treatment, but the small number of deaths from contagious febrile disorders, and no death having occurred from small-pox, show a remarkably satisfactory state of general health.

We hope in future years to see the vital statistics of the police force extended in several directions. There is an extensive field for observation among a body of 9000 or 10,000 men living in our midst with their families under circumstances so nearly similar to those of persons of the same class of life of the civil population. The registration of diseases among them would be a very important step in the direction of the organisation of similar registration among all classes, and, until such a system be established, would serve temporarily to indicate the advent and progress of epidemics. Mr. Holmes is of opinion that the percentage of sickness might be reduced to some extent by more strict Medical supervision. He is opposed to the men belonging to sick-clubs, since they have under that system a great interest in keeping themselves as long as possible on the sick list, inasmuch as they receive more from the club than is deducted as sick-stoppage from their pay, so that they receive actually more when sick than well. Mr. Holmes further remarks that the establishment of a central Hospital, to which severe and doubtful cases could be sent, would give much increased facility for detection of imposture and for efficient treatment, but would involve a considerable increase of expense; that acute and urgent cases are not very numerous in the force, and, when they do occur, there is no difficulty in procuring their admission into the general Hospitals. But the bulk of the cases, being chronic affections of the respiratory organs and rheumatism, are not such as can often be received in metropolitan Hospitals.

We strongly suspect that the desired amount of Medical supervision will never be attained so long as the work is to be done by men engaged in the struggle for private practice. Why not utilise for this purpose the services of naval and military Medical officers retired on half-pay?

PRECAUTIONS ISSUED BY THE MEDICAL DEPARTMENT OF THE PRIVY COUNCIL AGAINST THE INFECTION OF CHOLERA.

1. As Asiatic cholera is now prevailing in foreign ports within a week's voyage of this country, and may probably extend to others which have still quicker communication with England, it is not unlikely that, within the next month or two, occasional cases of the disease may be brought into the ports of this country.

2. A recent Order of Council, dated July 29, has given power to the respective local authorities to deal with any such cases, if they arrive, in a way to protect the population, as far as practicable, against surprise. But, as cases of choleraic infection have innumerable degrees of severity, it is possible that some such cases, slightly affected, will, notwithstanding the vigilance of local authorities, be landed without particular notice in English seaboard towns, whence then they may advance to other and perhaps inland places.

3. Former experience of cholera in England justifies a belief that the presence of imported cases of the disease at various spots in the country will not be capable of causing much injury to the population if the places receiving the infection have had the advantage of proper sanitary administration; and in order that all local populations may make their self-defence as effective as they can, it will be well for them to have regard to the present state of knowledge concerning the mode in which epidemics of cholera (at least, in this country) are produced.

4. Happily for mankind, cholera is so little contagious, in the sense in which small-pox and scarlatina are commonly called contagious, that if reasonable care be taken where it is present, there is scarcely any risk that the disease will spread to persons who nurse and otherwise closely attend upon the sick. But cholera has a certain peculiar infectiveness of its own, which, where local conditions assist, can operate with terrible force, and at considerable distances from the sick. It is characteristic of cholera, not only of the disease in its developed and alarming form, but equally of the slightest diarrhœa which the epidemic influence can cause, that all matters which the patient discharges from his stomach and bowels are infective, and that, if they be left without disinfection after they are discharged, their infectiveness during some days gradually grows stronger and stronger. Probably, under ordinary circumstances, the patient has no power of infecting other persons except by means of these discharges, nor any power of infecting even by them, except in so far as particles of them are enabled to taint the food, water, or air which people consume. Thus, when a case of cholera is imported into any place, the disease is not likely to spread, unless in proportion as it finds, locally open to it, certain facilities for spreading by indirect infection. In order rightly to appreciate what these facilities must be, the following considerations have to be borne in mind:—First, that any choleraic discharge cast without previous thorough disinfection into any cesspool or drain, or other depository or conduit of filth, infects the excremental matters with which it there mingles, and probably, to some extent, the effluvia which those matters evolve; secondly, that the infective power of choleraic discharges attaches to whatever bedding, clothing, towels, and like things have been imbued with them, and renders these things, if not thoroughly disinfected, as capable of spreading the disease in places to which they are sent (for washing or other purposes) as, in like circumstances, the cholera patient himself would be; thirdly, that if, by leakage or soakage from cesspools or drains, or through reckless casting out of slops and wash-water, any taint (however small) of the infective material gets access to wells or other sources of drinking-water, it imparts to enormous volumes of water the power of propagating the disease. When due regard is had to these possibilities of indirect infection, there will be no difficulty in understanding that even a single case of cholera, perhaps of the slightest degree, and perhaps quite unsuspected in its neighbourhood, may, if local circumstances co-operate, exert a terribly infective power on considerable masses of population.

5. It might be supposed that, under those provisions of the Sanitary Act, 1866, which relate to precautions against dangerous infections of disease, security could be taken, as regards the infective discharges of cholera, against various kinds of personal conduct which would be dangerous to the public health; above all, that, under those provisions or otherwise, the universal disinfection of such discharges could be enforced. Undoubtedly everything possible in this direction ought to be done, wherever a case of cholera is known to exist. Too much importance cannot be attached to the precaution of thoroughly disinfecting, without delay, all discharges from the stomach and bowels of persons suffering under the disease, as well as all bedding, clothing, towels, and the like, which such discharges may have imbued; and, of course, neither choleraic discharges, nor any slops which may contain traces of them, should ever (even when supposed to be disinfected) be cast into any position from which they may get access into drinking-water. The duty of observing those precautions is one which ought never to be neglected; but populations cannot prudently stake their lives on the chance that it will be completely fulfilled for them. Apart from all question of negligence, the degrees of cholera are too many, and the slight and incipient cases far too apt to escape observation, for any such defence against its infection to be more than partial. And the main object for endeavour must be to secure such local circumstances that cholera contagium, though not disinfected, shall be unable to act extensively on the population.

6. The dangers which have to be guarded against as favouring the spread of cholera contagium are particularly two. First, and above all, there is the danger of water-supplies which are in any (even the slightest) degree tainted by house-refuse or other like kinds of filth, as where there is outflow, leakage, or filtration from sewers, house-drains, privies, cesspools, foul ditches, or the like, into streams, springs, wells, or reservoirs from

which the supply of water is drawn, or into the soil in which the wells are situate—a danger which may exist on a small scale (but, perhaps, often repeated in the same district) at the pump or dip-well of a private house, or on a large and even vast scale in the source of supply of public water-works. And secondly, there is the danger of breathing air which is foul with effluvia from the same sorts of impurity. Information as to the high degree in which these two dangers affect the public health in ordinary times, and as to the special importance which attaches to them at times when any diarrhœal infection is likely to be introduced, has now for so many years been before the public that the improved systems of refuse-removal and water-supply by which the dangers are permanently obviated for large populations, and also the minor structural improvements by which separate households are secured against the dangers, ought long ago to have come into universal use. So far, however, as this wiser course has not been adopted, temporary security must, as far as practicable, be sought in measures of a palliative kind. (*a.*) Immediate and searching examination of sources of water-supply should be made in all cases where the source is in any degree open to the suspicion of impurity, and the water both from private and public sources should be examined. Where pollution is discovered, everything practicable should be done to prevent the pollution from continuing, or, if this object cannot be attained, to prevent the water from being drunk. (*b.*) Simultaneously, there should be immediate thorough removal of every sort of house-refuse and other filth which has accumulated in neglected places; future accumulations of the same sort should be prevented; attention should be given to all defects of house-drains and sinks through which offensive smells are let into houses; thorough washing and lime-washing of unelean premises, especially of such as are densely occupied, should be practised again and again. (*c.*) Disinfection should be very freely and very frequently employed in and round about houses, wherever there are receptacles or conduits of filth, wherever there is filth-sodden porous earth, wherever anything else in, or under, or about the house, tends to make the atmosphere foul. In the absence of permanent safeguards, no approach to security can be got without incessant cleansings and disinfections, or without extreme and constant vigilance against every possible contamination of drinking-water. [For detailed advice on disinfection, see the office memorandum on that subject.]

7. In view of any possibility that the infection of cholera may again be present in this country, it is desirable that in each locality the public should ascertain to whom it practically has to look, in case of need, for its collective safety against such dangers as the above. The responsibility is, in a large proportion of cases, mixed. The most critical of all its branches, the responsibility of providing for the unpollutedness of water-supplies, is, in many very important places, in the hands of commercial companies; and it is to be hoped that these companies, informed as they must be of the calamitous influence which some of their number have exerted in previous epidemics of cholera, will remember, if the disease should again be present here, that each of them, in its daily distribution of water, has hundreds, or even thousands, of human lives in its hands. But, except to that extent, the responsibility for local defences against cholera, both as regards water-supply and as regards local cleanliness and refuse removal, is vested in the local authorities—the "sewer authorities" and "nuisance authorities" of recent statutes. These authorities—the town councils, improvement commissioners, local district boards, boards of guardians, and select and common vestries, of their respective areas of jurisdiction—are all, either electively or directly, so constituted as to represent the will of the local rate-paying population; and each such population has had almost absolute means of deciding for itself whether the district which it inhabits shall be wholesomely or unwholesomely kept. It is greatly to be wished that the former of these alternatives had, from long ago, been the desire of every local constituency in the country. It may fairly be believed that, in considerable parts of the country, conditions favourable to the spread of cholera are far less abundant than at former times of visitation; but it is certain that in very many places the conditions of security are wholly, or almost wholly, absent; and it is to be hoped that, in all this large class of cases, the authorities, under present circumstances, will do everything which, in the remaining time, can be done to justify the trust reposed in them by the Legislation for the protection of the public health.

8. It is important for the public very distinctly to remember that pains taken and costs incurred for the purposes to which this memorandum refers cannot in any event be regarded as wasted trouble and expense. The local conditions which would enable cholera, if imported, to spread its infection in this country, are conditions which, day by day, in the absence of cholera, create and spread other diseases—diseases which, as being never absent from the country, are, in the long run, far more destructive than cholera; and the sanitary improvements which would justify a sense of security against any apprehended importation of cholera, would, to their extent, though cholera should never reappear in England, give amply remunerative results in the prevention of those other diseases.

By direction of the Lords of the Council,
(Signed) JOHN SIMON.

Medical Department of the Privy Council Office,
August 10, 1871.

WATER-SUPPLY.—The New River Company undertake, or rather engage to undertake, to provide a constant supply of the purest water in the district at present dependent on the Company, while the general question of water-supply is under discussion.

OBSCENE ADVERTISEMENTS.—Of late obscene announcements on "pillars and posts" have been less common than formerly. There is all but a complete cessation of the system of putting filthy little handbills into the hands of passengers in the streets. But some relics of the past dirty announcements remain. It is evident, however, that the publishers of such outrages against decency are amenable to punishment. On Saturday last Sir William Rose inflicted a fine of 40s. on a man for posting in a public place an indecent advertisement. If this law were strictly put in force, the streets would be purged of a nuisance which is an outrage upon decency.

REVIEWS.

Selected Obstetrical and Gynæcological Works of Sir James Y. Simpson, Bart., M.D., and late Professor of Midwifery in the University of Edinburgh. Edited by J. WATT BLACK, M.A., M.D., M.R.C.P.L., Physician-Accoucheur to Charing-cross Hospital, London, and Lecturer on Midwifery and the Diseases of Women and Children in the Hospital School of Medicine.

THE late Sir James Simpson was undoubtedly a very high authority on many of the subjects treated of in this volume; and now that he is removed by death, it was desirable that a complete edition of his works should be produced under the editorship of a Physician who had the advantage of being his assistant for several years, and of acquiring during that association a knowledge of his opinions, writings, and mode of practice. The way in which Dr. Black has performed his task justifies the confidence placed in him by Sir James Simpson's representatives. Whilst the book before us contains the most important of Sir James's contributions to the study of Midwifery and Female Diseases, which, in some form or other, were already before the public, it has the additional merit of bringing to light for the first time his original "*Lecture Notes*," on which was founded his course on midwifery. This is the more satisfactory, as we learn it had been Sir James Simpson's intention to publish an outline of his systematic lectures, a project deferred by his accumulating engagements, and at last frustrated by his death. These "Lecture Notes" are calculated to serve as a guide both in the study and teaching of practical obstetric science, and we are reminded by their publication of similar abstracts of the oral teaching of other great teachers—of Astley Cooper, Abernethy, and Blundell. We may observe, *en passant*, that the present volume is but the first of three which are to appear on subjects identified with Professor Simpson's name, the two coming ones, which are already in the press, consisting of his "Clinical Lectures" and his treatises on "Hospitalism" and "Anæsthesia." These latter-announced volumes must be left to speak for themselves when they appear, and we now proceed to consider the one lying before us. It is somewhat bulky, but this was unavoidable, considering the length and importance of the articles it contains; and if the title which the editor has selected — "Obstetrical and Gynæcological" — would have been thought pedantic by Smellie or Burns, modern criticism will excuse it because of its comprehensiveness. The work itself is divided into six parts, viz.:—1st, Lecture Notes; 2nd, Pregnancy; 3rd, the Fœtus and its Appendages; 4th, Parturition; 5th, the Puerperal State; and 6th, the Non Puerperal Diseases of Women. These are again subdivided into different sections, and are furnished with numerous woodcut illustrations. The whole is supplemented by a copious and clear index, which for reference is invaluable.

The lecture notes, though concise, contain plain directions for any and every emergency to be met with in obstetric practice, clothed in clear and unmistakable language. The section on pregnancy commences with the well-known paper on its duration, in which Sir James Simpson establishes the fact that the period of human pregnancy is not absolutely definite and precise; there follows, *inter alia*, the original note on the therapeutic effects of the salts of cerium in allaying the attendant vomiting. The chapter on the fœtus and its appendages contains an interesting detail of the rudimentary reproduction of extremities after their spontaneous amputation. We have not space to follow the editor minutely, but we cannot refrain from directing attention to the late Professor's employment of chlorate of potass in placental diseases, which he believed to be effectual in checking the repetition of abortions in women whose tendency to them was confirmed, and in producing a healthy and fruitful condition of the uterus. Under the head of parturition there are the papers on the management of placenta prævia, wherein Simpson first advocated the plan of separating and removing the placenta, on albuminuria in puerperal convulsions and peritonitis, on the difficulties of labour occasioned by the sex of the child, and on the various obstetric operations. The succeeding division gives a valuable article on puerperal fever, its propagation and communicability. The sixth and last part is devoted to the non-puerperal diseases of women; here we find the important memoir on the uses and application of the uterine sound, together with notes on various local applications to the interior as well as to the cervix of the womb; dilatation of the cervix, retroversion, fibroid and polypoid

tumours, carcinoma, spurious pregnancy and infecundity, pass under notice; whilst Simpson's views on the treatment of ovarian tumours, and on ovariotomy itself, are reproduced *in extenso*. The palliative treatment by iodine injections and by tapping is carefully weighed and contrasted with the total extirpation of the tumour; and, with characteristic frankness, Sir James Simpson does not shirk the responsibility which must attach to the *operator*. He was in the habit of putting this question to himself:—"Am I conscientiously entitled to inflict deliberately upon my fellow-creature, with my own hands, the imminent and immediate chance of death for the problematical and prospective chance of his future improved health and prolonged life?" And his answer to this question was:—That, when the health and life of the patient were not immediately threatened by the stage and progress of the malady; when the tumour was a source of inconvenience and deformity rather than a source of danger; and when the evils of the disease were as yet prospective rather than real—the conditions for resorting to ovariotomy were unjustifiable. But that, if the health of the patient were becoming rapidly undermined by the disease; if the progress of the affection showed that before long it would inevitably prove fatal; if the question were thus reduced to one of certain and not distant death from the malady, or, *possibly*, an entire escape from the affection, with prolonged life and health, from the operation; and if, in addition, the ascertained or apparent freedom of the tumour from adhesions, and other circumstances, were such as to present no counter-indication—then he believed that ovariotomy might be undertaken under conditions far more justifiable and legitimate than could be urged in favour of capital operations generally; for whereas about 35 per cent. of those operated on for ovarian disease die, there is a still larger rate of mortality after operations for hernia, stone, and aneurism, as well as after amputations generally, as shown by the statistics freely introduced into the volume.

In this notice we have attempted but little more than to give an idea of the contents of this valuable book. To many of our readers, doubtless, the chief of the papers it contains are familiar. To others, although probably they may be aware that Sir James Simpson has written on the subjects, the papers themselves will be new and fresh. To the first class we would recommend this edition of Sir James Simpson's works, as a valuable volume of reference; to the latter, as a collection of the works of a great master and improver of his art, the study of which cannot fail to make them better prepared to meet and overcome its difficulties.

Risultamenti ottenuti nella Scuola di Chirurgia della regia Università di Padova col Bicloruro di Metilene quale Anestetico Generale. Per il Dottore Paolo Rossi. Padova. 1871. 8vo. Pp. 15.

Results obtained in the Surgical School of the University of Padua with Bichloride of Methylene as a General Anæsthetic. By Dr. P. Rossi.

The author gives us as his general conclusion, after a trial of bichloride of methylene in 108 operations, in only eight of which cases was there any vomiting, "that even from the results obtained in the Surgical School of Padua, chloromethyl merits the preference over chloroform." He gives an accurate account of the discovery of this anæsthetic by Richardson, in 1867, and its first employment in a Surgical operation by Mr. Spencer Wells in November of the same year. Since July, 1868, it has entirely replaced chloroform and ether as a general anæsthetic in the University of Pavia. In all minor operations local anæsthesia by the ether spray is preferred.

A considerable part of this pamphlet is taken up by a translation of a paper by Mr. Spencer Wells, published last April by one of our contemporaries, in reply to a statement that the new anæsthetic was only useful for short operations. Mr. Wells's experience in about 250 operations fully accords with that of the Paduan school. It is very pleasant to see the authority of our London school cited as it is in this contribution of an Italian Surgeon; and Mr. Wells may be justly congratulated on the allusions to him as "*grande ovariotomista*," and as "*immortale Chirurgo*."

The latest news from South America tells us that the health of Buenos Ayres is completely restored. Winter has set in, and the Doctors were saying it would be the healthiest winter the city had known for some years. Sanitary reforms are about to be carried out on a large scale.

NEW BOOKS, WITH SHORT CRITIQUES.

Our Eyes, and How to Take Care of Them. By H. W. Williams, M.D. Wm. Tegg.

*** This is a sensible little *brochure*, and is well worthy of commendation. It has had a "great success" in America. The author gives a popular explanation of the organ of vision, and the various disorders and diseases to which it is subject. But he is particularly careful to recommend his readers not to treat these disorders and diseases, but to apply ere it is too late to some respectable Surgeon. It is the exception to the rule that we recommend "popular" works on Medicine or Surgery; but this is one of those exceptions which we are pleased to acknowledge.

On Bone-setting (so-called), and its Relation to the Treatment of Joints Crippled by Injury, Rheumatism, Inflammation, etc. By Wharton Hood, M.D., M.R.C.S. Macmillan and Co.

*** This is a reprint, with considerable additions, of a series of interesting and instructive papers, which originally appeared in the pages of a contemporary. In a very plain, sensible, and practical manner Dr. Hood describes the manœuvres and manipulations of the bone-setters in cases of distortion and loss of power. He shows that Mr. Hutton invariably said, in all cases brought under his notice, that the "bone was out," and when he relieved the patient would declare he had put the bone in place. Dr. Hood's book is full of instruction, and should be read by all Surgeons.

PROVINCIAL CORRESPONDENCE.

LIVERPOOL.

August 15.

The remaining part of the report of Drs. Parkes and Sanderson on the sanitary condition of Liverpool has just been presented to the Town Council. In it the authors consider:—1. The mortality of Liverpool as compared with that of other large towns. 2. The comparative mortality of different districts in Liverpool itself. 3. The comparative mortality in certain selected streets. 4. The sanitary condition of those and other similar streets.

Under the first head, Liverpool appears to great disadvantage, her mean annual mortality per 1000 during the decade between 1861 and 1871 having been 38·59, while in Manchester, the town which came nearest to her, it was 30·2, and in Bristol only 22·5. The mortality is very properly divided into ordinary and extraordinary. The ordinary annual death-rate—*i.e.*, that which exists when no particular epidemic disease prevails—is about 35 per 1000; while during the prevalence of typhus, cholera, or similar scourges it may amount even to 50 per 1000.

In reviewing the causes of the frequent epidemics which afflict the town, the report points out the peculiar dangers to which its abundant communication with all parts of the world exposes it, and the great facilities for the spread of infectious disease, when once introduced, afforded by its local conditions as a large port; and among precautionary measures it suggests the isolation from the permanent population and the healthy accommodation of the crowds of emigrants which pass through it; and likewise that monthly reports of the condition, as regards epidemic diseases, of Germany, Ireland, and the other countries whence emigrants are chiefly drawn, should be obtained, so as to put the town upon its guard.

On investigating the mortality of different districts, the authors point out that there are some—such as Rodney-street, Abercromby, Castle-street, and St. Peter's Wards—in which it may compare favourably with that of any town in England; while in others the death-rate, at all times excessive, reaches during the prevalence of any infectious disease a fearful height. The difference in these different districts cannot arise from any general conditions of climate, but must be the result of modes of life, varying densities of population, local sanitary defects, conditions of soil, or some such causes.

In order to carry the analysis further, the authors of the report selected four streets, two healthy and two unhealthy, for comparison. The two healthy ones were Rodney-street and Egerton-street, the former inhabited by professional men and families of independent means, and the latter by clerks, Custom-house officers, and skilled artisans in the receipt of good wages. Rodney-street is as healthy as any healthy country village with an equal number of inhabitants, while Egerton-street, though

possessed of a higher mortality, contrasts very favourably in this respect with the town generally, the death-rates being as 26 to 35. In the two unhealthy streets—viz., Addison-street and Sawney Pope-street—the enormous proportion of 45·4 and 55·86 deaths per 1000 per annum of their population is reached. These streets are terribly overcrowded by the most drunken, dirty, and improvident classes of the community; and when it is considered that they are but representatives of a very large number of streets, there ought to be but little surprise at the fact of Liverpool's high mortality. A frightful contrast is presented between the first and last of the streets mentioned above in respect of the deaths of children under 5 years of age. In Rodney-street there die annually 4 per cent. of these; while in Sawney Pope-street the percentage rises to 26; and in some others even much higher. Of course the excessive infant mortality reduces the average length of life, which in one or two cases is only 10 years, that of the town generally being 23 years. The three principal causes of children's deaths are, in their order of frequency, the exanthemata, diarrhœa, and bronchitis (including pneumonia); while, in non-epidemic years, by far the most potent causes of death, in the older inhabitants of the unhealthy districts, are bronchitis and phthisis.

With reference to the sanitary condition of the selected streets, the authors strongly condemn the courts which abound in various parts of Liverpool, and which, indeed, do seem to have been constructed with a view to the exclusion of as much air and light as possible. Entered by a dark and narrow passage from a dirty street, and completely blocked up by a high wall at the opposite extremity, it is no wonder that Drs. Parkes and Sanderson consider that "few constructions could be better adapted for the spread of contagious diseases." Against the cellars, also, they speak with equal force, and, as anyone who knows anything of Liverpool cellars of the poorer sort knows, with equal justice too; for, even when these places are not used as dwelling-rooms, they become the receptacles of all the filth and garbage of the house, and in weather like the present become the sources and centres of danger to the health of the neighbourhood in which they abound. It is recommended, therefore, so to close the cellars "as to render them inaccessible to the occupants of the houses or courts."

With regard to the causes of a misery and poverty greater than the authors of the report could have believed to exist in any town in this country, they are just what everyone who for any time has resided in the town, and taken the trouble to inquire into its condition, has made up his mind about, and which we ourselves have many times mentioned when writing on this subject—*i.e.*, the irregularity of the labour market, the improvidence and careless habits of the people—and especially of the Irish—and the great intemperance.

The report contrasts most strongly the filthy and miserable condition of the interior of the houses, the thresholds of which Englishmen's jealousy for the liberty of the subject so often makes a barrier to improvement, with the cleanliness and good condition of the exterior courts themselves, over which the Corporation exercises control. These, for the most part, are well paved; many have hand-pipes of water; and galvanised iron receptacles, into which all the dry rubbish may be (but too often, alas! is not) put, are placed in convenient places. Very favourable judgment is passed on the efficiency of the trough water-closets, which, through the energetic action of Dr. Trench, have now almost universally taken the place of the filthy middens, and to the condition and actual working of which the reporters paid special attention, in consequence of a discussion which has for a long time been maintained in Liverpool on the subject. The words of the report are explicit:—"As an apparatus for the speedy and safe discharge of large quantities of excreta into a drain, we regard the trough-closet as superior to any other with which we are acquainted." As a qualification to this, it is stated further on that while six selected streets, with a population of 4748 souls, "do not show any decided evidence of improper sanitary conditions of either water-supply or sewerage, the entrance of sewer air into many of the houses is quite certain, and must contribute to the fetor and unwholesomeness of the atmosphere, which is the main sanitary defect in the poor houses of Liverpool." Where lies our hope of improvement? "The remedies are to be sought, first, in the introduction of greater volumes of pure air among the crowded quarters and into the houses of Liverpool; and, secondly and chiefly, in the improvement of the morals of the people, and in the cultivation of habits of temperance, self-restraint, and forethought." This candid report does not conclude, as too many critics, after a very hasty consideration of our unhappy conditions, have done, without paying a well-merited tribute to the energy and zeal in sanitary matters displayed by the Corporation, acting under the advice of its very able Health Officer, Dr. Trench, and his predecessor, Dr. Duncan.

As yet we are free from cholera, but, in anticipation of its probable arrival, orders have been given to the staff sub-committee to make a provisional contract "for the erection of a temporary cholera Hospital, if required, to contain not more than twenty beds, and to make such other arrangements as may be necessary."

GENERAL CORRESPONDENCE.

THE UNIVERSITY OF LONDON.

[To the Editor of the Medical Times and Gazette.]

SIR,—The University of London is a national institution, if being founded and supported by the funds of the nation constitute an institution a national one. But this is its sole claim to the rank. It is in no sense a university for the people, nor is it a popular university. The number of its graduates is ridiculously small compared with the national wealth expended upon it, and its influence on the real advance of national culture has been at least equalled, if not surpassed, by that of many voluntary associations, and has never approached that exercised by the older universities. Its chief function has been that of a Medical examining board, but the number of its Medical graduates, although large out of all proportion to the graduates in Arts, is ludicrously small compared with the number of Medical graduates poured forth by the universities of Scotland and Ireland. It is not a university in which the average English lad can be certain, with a fair training and fair work on his own part, to obtain a degree, but it is rather a corps of examiners, largely paid by the State, whose aim seems to be to maintain an ephemeral reputation by putting unfairly difficult questions to candidates, and rejecting all who do not answer them in a special form. The national value and use of the University is sacrificed in order that a select few, some of whom are mentally exhausted and injured by the effort, may obtain its degrees. And yet, with all this exclusiveness, it is notorious that the highest standard of mathematical and classical acquirement the University can produce is far surpassed by the standard set up at Cambridge and Oxford, and the University has but a very small proportion of the leading cultivators of the natural sciences, and not a poet, or historian, or statesman, or great writer in its list of alumni.

I may quote the result of the last matriculation in proof of the justice of my remarks. It is stated that two-thirds of the lads who presented themselves on that occasion were rejected. Now, when it is remembered that no lad would think of attempting to matriculate without an average education and a special preparation, and that the very large majority must have worked—and worked hard—before they ventured, I maintain that the rejection of two out of three proves that the examiners did not perform their duty to the State and country which pays them. To set an average schoolboy on the commencement of a university career a difficult paper in natural philosophy, and to insist on its being answered, besides by no means easy papers in Greek, Latin, arithmetic, mathematics, and modern languages, is to provide for the certain rejection of the majority of English boys.

A very real complaint against the mode in which the University performs its examining functions is, that its questions for pass examinations are not only unnecessarily difficult, but are essentially unfair. For instance, take the last preliminary scientific examination—an examination, be it remembered, intended for students in general science, and by no means exclusively for Medical students. The paper on zoology contained a question on the comparative anatomy of the kidneys—a purely anatomical and physiological question; and amongst the questions in botany was a question on the vegetable alkaloids, which would be likely to be known by none except by advanced students in Medicine. These, Sir, to candidates are very real grievances, and if Parliament is to continue to vote large sums for the maintenance of this University, the question will undoubtedly before long be put, What benefit does the University confer on the nation in return? The annual production of half a score of well-educated Physicians and barristers, who would most certainly be equally well produced elsewhere, will, I suspect, be thought an inadequate return. The truth is, that the University should have pass examina-

tions for its degrees which the average Englishman with fair work and training may be sure of passing. The examinations for honours, on the other hand, should be made as high as possible, and in some respects might well be made higher than at present. I am, &c., M.D.

"QUICK WITH CHILD."

LETTER FROM DR. C. R. BREE.

[To the Editor of the Medical Times and Gazette.]

SIR,—I must confess that I read Mr. Weightman's letter with extreme surprise. Dated from the "Temple," there must, I think, be some mistake, and that Mr. Weightman has been personated. The horrible law upon this subject is not as Mr. Weightman states it, and the "quick with child" notion did not arise in my imagination.

It is not the duty of the jury of matrons to determine whether the woman is with child or not, but to decide whether she is "quick" with child; or, in the words of the law as laid down by the judge to the jury of matrons—taken, be it remembered, from women standing in or prowling about the court—to find "whether the prisoner be with child; if a quick child or not." Now for proof that this is so.

Let me call Mr. Weightman's attention to the case of Rex *v.* Wright, Norwich, Lent Assizes, 1832 (*Medical Gazette*, 12, 585, p. 24, and quoted by Taylor, "Medical Jurisprudence," p. 583), a case which he seems never to have read. In this case the woman was found guilty of the murder of her husband. She pleaded pregnancy, and the judge empannelled a jury of matrons, who found that the prisoner was "not quick with child." Now, this woman would inevitably have been hanged had not the Medical men of Norwich interfered and represented to the judge that proper means had not been adopted by the old women to ascertain the fact of quickening. She was then examined by some Medical men, found to have passed the period of quickening, and to be "quick with child"; therefore she was respited, and delivered four months afterwards of a living, healthy, full-grown child. This case completely cuts away the ground from beneath Mr. Weightman's feet, and shows, not only what the law is, but its truly horrible nature. Dr. Taylor, who speaks most indignantly of such a state of the law (*op. cit. passim*), says that—"The occurrence of such a case as this should lead to the total abolishment of the jury of matrons;" and yet, forty years after, such a disgraceful mode of obstructing justice and causing grievous wrong finds an advocate from the "Temple" of justice itself.

Sir, I maintain that every assize town contains at least two or more competent obstetricians, whose assistance ought in these cases to be obtained. If they disagree, then let them call in a third. If they still doubt, give the woman the benefit; or, rather, spare the judicial murder of an innocent unborn babe.

Mr. Weightman's remark about Medical dictatorship comes badly from one, the members of whose profession occupy such a large portion of the House of Commons, and who get all the rewards of the State.

The members of the Profession to which I have the honour to belong pass their entire lives in performing the highest duties of humanity. Their greatest reward, and generally the only one they get, is the consciousness of having exercised their functions in a uniform stream of benevolence and kindly feeling. Actuated by such impulses, I feel certain that one or other of the Medical members of Parliament will not allow another session to pass without getting rid for ever of a "jury of matrons." They will be supported by ninety-nine out of every hundred members of the House. I am, &c.,

Colchester, August 12. C. R. BREE, M.D.

P.S.—"The bare proof of pregnancy should itself be sufficient. Such is the law of France by Art. XXVII. of the Penal Code. Besides, the means taken by our law to determine the question are bad, and quite unfitted for the present state of society. A jury of matrons may easily be deceived with respect to pregnancy, and still more so with respect to the sign of quickening as it concerns another female."—*Taylor*, "*Med. Jur.*," p. 583.

GLYCERINE IN RHAGADES OF THE ANUS.—Dr. Weisse relates a case in which extremely painful rhagades of the anus that had caused most severe suffering for several weeks were at once successfully treated by the effectual application of glycerine.—*Wiener Zeitung*, July 25.

NEW INVENTIONS.

ARNOLD AND SONS' IMPROVED PORTABLE ENEMA (REGISTERED).

(*Arnold and Sons, Instrument Makers by Appointment to Her Majesty, St. Bartholomew's Hospital, etc., 35 and 36, West Smithfield, London.*)

THIS enema consists of an indiarubber bottle, which is specially prepared to stand any climate, and is fitted with a reversible pipe and mount, to which is arranged a cap, so that a patient can with safety carry the fluid with him, and by simply taking off the cap and reversing the rectum-pipe it is then ready for use. The advantages of such an instrument will at once be seen, as there is no possibility of its getting out

of repair. The mounts are made of brass, and carefully turned on the inner side and every part which comes in contact with the fluid, so as to prevent the possibility of corrosion. They are fitted in various ways, and answer equally well as an enema or vaginal syringe. A smaller size is made for injecting the urethra, so that the patient can readily and without fear of breakage carry with him the injection and syringe ready for immediate use.

OBITUARY.

WILLIAM CRISP PECHEY, M.D. ST. AND., M.R.C.S., WAS born at Biggleswade, Beds, December 17, 1838. Descended through several generations on both sides from members of the Medical Profession, he very early showed great love and aptitude for natural history studies. Educated first at Hill House, Beacondale, and afterwards at Mr. West's, of Amersham, he passed some time as pupil with Mr. Foster, of Huntingdon, and finally became a student at the London Hospital.

Diligent as a student, and still devoted to anatomical and natural history pursuits, he was appointed one of the yearly prosectors at the College of Surgeons, and, had his health been good, would probably have taken a high position in London. Unhappily an attack of hæmoptysis drove him from England, and after several voyages to Australia and India he settled, in 1863, in New South Wales, first at Rockleigh and afterwards at Fort Bourke. Here, with a practice of about a hundred miles' radius, thrown entirely on his own resources, he lived a life of interest and excitement, with ample opportunities for prosecuting his favourite pursuits. In 1868 he returned to England, but increasing illness compelled him soon to leave

again for a warmer climate. Having sold his Australian practice, he attempted this time to settle in the Fiji Islands, where he hoped the possession of a cotton plantation would afford him ample leisure to study the rich fauna of the place. The climate, however, was ill-suited for him; he rapidly became worse, and very speedily he returned to England, where, after lingering some few months, he died at the house of his mother, at Walthamstow, on June 22 last. He has left nothing behind him except a not inconsiderable museum, the results of his collecting in various places, especially rich in Australian birds, and a little work on the Fiji Islands, published only a short time before his death, and giving a remarkably graphic and sensible account of the aspect and opportunities of those rising colonies. All who knew him deplore in his too early death the loss of an acute and indefatigable intellect, which, had life and health been spared, might have done good work in science, and of a true and noble-hearted friend.

CHARLES ASPRAY, L.S.A.

Charles Aspray was born on November 22, 1804, in the town of Olney, Bucks, where his family had followed the practice of Medicine, from father to son, for six generations. When quite young his father sent him to London to study at Guy's Hospital. In 1826 he became a Licentiate of the Apothecaries' Company. For twenty-six years he laboured in his Profession, holding many union and club appointments, and nobly exposed himself during a severe outbreak of cholera at Olney. Extremely sensitive—perhaps too much so for a Medical Practitioner—he suffered from his sympathy with his patients, and gained the esteem (and one might say the affection) of all who knew him. To the great regret of his numerous friends, he left Olney in 1852, wishing to give his children the advantage of a London education.

For the last three years he suffered considerably from mental depression, occasioned by hepatic derangement. His weakness was much increased by a chronic bronchitis. He gradually sank, and died on August 2, aged 66, the immediate cause of his death being disease of the liver.

Mr. Aspray was a man of acquirements, and an able Practitioner. He was born, we believe, in the very house occupied formerly by the poet Cowper, and leased after the poet's death by "Dr. Aspray"—one of the best-known Surgeons in general practice in the part of the country in which he practised. Dr. Aspray was the Medical attendant of the Throckmortons, at Weston Underwood, the intimate friends of Cowper; and he attended the family at Clifton Great House, where Lady Austen resided. He was the friend of Bull (of Newport), Sutcliffe (of Olney), John Newton, and Andrew Fuller.

T. M. KENDALL, F.R.C.S.

The death of this gentleman occurred somewhat suddenly at King's Lynn on Tuesday morning. Mr. Kendall was in his 52nd year, and was the Medical attendant of the Prince of Wales when at Sandringham. Mr. Kendall was a Fellow of the Royal College of Surgeons by election, 1857, having become a Member of the College in 1842. He was also a Licentiate tiat of the Society of Apothecaries; was educated at St. George's Hospital. He was Senior Surgeon, and formerly House-Surgeon, of the West Norfolk and Lynn Hospital, Admiralty Surgeon and agent for Lynn, Inspector of Army Recruits, Medical Inspector of Seamen, Surgeon to Great Eastern Railway and Sutton branch of the Great Northern Railway, Medical Officer of the Freebridge district of the Lynn Union, Surgeon of King's Lynn Union-house and Infirmary, etc., etc.; also a member of the King's Lynn Town Council, and *ex officio* member of the several governing bodies of the town. Both in public and private life Mr. Kendall was greatly respected.

RALPH MONTAGUE BERNARD, F.R.C.S., etc.,

Became the victim of an accident last week. He was walking along the cliffs of Gwbert, in the Bay of Cardigan, with his wife; the edge of the cliff gave way, and he fell on the beach seventy feet below. He sustained a severe fracture of the skull, and died in a few minutes. He was a Fellow of the Royal College of Surgeons, Surgeon to the Bristol Royal Infirmary and Bristol Police. He was also Consulting-Surgeon to the Bristol Eye Hospital. He was formerly Surgeon to Bridewell and the Eye Hospital.

GEORGE DAVID MACLAREN, DEPUTY INSPECTOR-GENERAL OF HOSPITALS AND FLEETS,

Died a few days since. The deceased became an Assistant-Surgeon December 28, 1837, and Deputy Inspector-General January 15, 1866. He was appointed to the Greenwich Hospital pension on March 28, 1866. By his death a vacancy has occurred in the list of Staff Surgeons and Surgeons on the pension-list of Greenwich Hospital.

JOHN DUNWOODIE, SURGEON R.N.,

Assistant-Surgeon of Portsmouth Dockyard, died on the 7th inst. The deceased was engaged in his Professional duties on Friday fortnight, apparently in his usual health, and at 6 p.m. had an attack of epilepsy. At one time favourable symptoms appeared, but a succession of fits rendered all chance of recovery hopeless, and the deceased expired on Monday morning. He was appointed Assistant-Surgeon of Portsmouth Dockyard on September 21, 1870, shortly after his return to England, invalided from Yokohama, where he was in Medical charge of the sick quarters.

MEDICAL NEWS.

Apothecaries' Hall.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, August 10, 1871:—

Garton, William, St. Helen's, Lancashire.
Pearce, Joseph Chaning, The Manor House, Brixton.
Wheeler, Daniel Martin Brumwell, Chelmsford.

The following gentlemen also on the same day passed their first Professional examination:—

Hansell, William Charles, Guy's Hospital.
Kessen, Andrew Emerson, Guy's Hospital.
Le Mottée, George Herbert, King's College.
Paul, Frank Thomas, Guy's Hospital.
Spark, Sidney Walter, Gny's Hospital.
Whitmore, William Tickle, St. Bartholomew's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Baines, M., M.D. Lond.—Certifying Surgeon for South-Western District under the Factories Act.

Law, W. T., M.R.C.S. Eng., L.S.A. Lond., Resident Physician, Royal Infirmary, Edinburgh.

May, Mr.—Medical Officer to the Parochial Board, Aberfoyle.

Moore, Edwin, M.D., M.R.C.S.E., L.S.A.—Honorary Medical Officer of the Preston and County of Lancaster Royal Infirmary, *vice* Dr. Nulling, deceased.

Smith, W. R., L.R.C.P. and L.R.C.S. Edin.—House-Surgeon to the Huddersfield Infirmary, *vice* E. J. H. Booth, M.R.C.S., L.S.A., resigned.

Walker, S., M.R.C.S. Eng.—Surgeon to the North Riding Infirmary, Middlesbro'-on-Tees, *vice* J. Ellerton, M.D., resigned.

Whitehead, Alfred, M.R.C.S.E.—Resident Medical Officer to the Birmingham and Midland Free Hospital for Sick Children.

Wilson, Richard Langford, M.R.C.S., L.S.A.—Medical Officer for the Second District of the Brixworth Union.

BIRTHS.

Barry.—On August 13, at Clifden-road, Twickenham, the wife of D. P. Barry, M.D., late Staff Surgeon-Major, of a daughter.

Domenichetti.—On August 16, at 10, Scarsdale-villas, Kensington, the wife of Richard Domenichetti, M.D., Staff Surgeon-Major London Recruiting Staff, of a daughter.

Evans.—On August 10, the wife of Nicholl Evans, M.D., Cheshunt, Herts, of a son.

Fagge.—On August 10, at Lutterworth, the wife of Herbert W. Fagge, M.D., of a son.

Farrington.—On August 8, at Grassmere House, Diss, the wife of Dr. Anthony Farrington, of a daughter.

Hocken.—On August 8, at Wood-green, Middlesex, the wife of C. E. Hocken, M.D., of a daughter.

Jeaffreason.—On August 15, at 7, Tyndale-place, the wife of J. B. Jeafferson, Surgeon, of a son.

Langley.—On August 8, at Rathdrum, co. Wicklow, the wife of Harley Langley, M.D., Surgeon Bombay Army, of a daughter.

MARRIAGES.

Douglass—Watts.—On August 10, at the Parish Church, Croydon, Robert Bruce Douglass, of Brompton, to Sophia Louisa, eldest daughter of the late Henry Watts, M.D., and niece of Mr. and Mrs. Rawlings, of Bensham House, Croydon.

Hale—Poole.—On August 10, at St. John's, Paddington, Charles Douglas Bowdich, eldest son of Robert Douglas Hale, M.D., of Queen Anne-street, Cavendish-square, to Bertha Maria, daughter of the late John Poole, Esq., of Avenue House, Upper Clapton.

Hincks—Pollard.—On July 4, at St. George's Cathedral, Georgetown, Demerara, British Guiana, Francis Hincks, Esq., youngest son of Sir Francis Hincks, C.B., K.C.M.G., late Governor of British Guiana, to Alice Josephine Cory, youngest daughter of the late J. H. Pollard, M.R.C.S.E.

KINGHAN—SPENCER.—On August 10, at St. George's Church, Campden-hill, George Fitzmaurice Kinghan, of Dublin, to Mary Emily, only daughter of George Spencer, Surgeon, of Kensington-park-road, Notting-hill.

PEARSE—RADCLIFFE.—On August 10, at All Saints' Church, Kensington, Lieut. Arthur Napier Pearse, son of George Pearse, M.D., Hon. Physician to her Majesty, to Alice Ekins, second daughter of the late Capt. Charles Wilbraham Radcliffe, 7th Bengal Cavalry.

DEATHS.

A'BECKETT, ARTHUR MARTIN, F.R.C.S., at Sydney, of serous apoplexy, suddenly, on May 23, in the 59th year of his age.

ADCOCK, ALICE MARY, infant daughter of John Adcock, M.D., Army Medical Staff, at Sandgate, on August 9.

ARTHROPE, WILLIAM, M.D., formerly of Prince's-street, Leicester-square, at Melbourne, Australia, on May 29, aged 60.

BERNARD, RALPH MONTAGUE, Surgeon, Clifton, Bristol, at Gwbert, near Cardigan, South Wales, on August 10, aged 55.

CHITTY, FREDERICK AYNOTT, son of Aynott Chitty, Surgeon, Dedham, Essex, of pyæmic fever, after vaccination, on August 9, aged 16.

KENDALL, THOMAS M., F.R.C.S., L.S.A., at King's Lynn, on August 15, aged 51.

NESHAM, MARGARET, wife of William Nesham, Surgeon, at 39, Northumberland-street, Newcastle-on-Tyne, on August 13, aged 68.

SYNNOTT, ROBERT, M.D, late of 2, Royal-avenue, London, at Lisnascia, co. Down, on August 9, in his 53rd year.

TOMKINS, HANNAH, relict of the late William Tomkins, M.D., of Yeovil, Somerset, at the residence of her daughter, on August 10, aged 78.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

BOURNEMOUTH GENERAL DISPENSARY.—Resident Surgeon; must have both Medical and Surgical qualifications and be registered. Applications and testimonials to B. A. Rugg, Esq., for the President of the Dispensary, on or before August 28.

BRADFORD INFIRMARY AND DISPENSARY.—Physician; must be a Graduate in Medicine of one of the Universities of the United Kingdom, or a Fellow or Member of one of the Colleges of Physicians. Applications and testimonials to Mr. C. Woodcock, Bradford, on or before August 30.

BRISTOL GENERAL HOSPITAL.—Assistant House-Surgeon; must be duly qualified and registered. Applications and testimonials to the Secretary on or before August 25. Election on the 30th.

CHESTER GENERAL INFIRMARY.—Visiting Surgeon; must have both Medical and Surgical qualifications. Applications and testimonials to the "Chairman of the Board of Management," on or before August 28.

COUNTY ASYLUM, BURNTWOOD, LICHFIELD.—Assistant Medical Officer; must be duly qualified. Applications and testimonials to Dr. Davis, Medical Superintendent.

COVENTRY PROVIDENT DISPENSARY.—Surgeon; must be a Member of one of the Colleges of Surgeons of London, Dublin, Edinburgh, or Glasgow, and must hold in addition a Licence from one of the Royal Colleges of Physicians, or from the Society of Apothecaries. Applications and testimonials to the "Honorary Secretary," on or before August 31.

MIDDLESEX HOSPITAL, W.—Physician; also Assistant-Surgeon. Applications and testimonials to Mr. H. N. Custance, Secretary-Superintendent, on or before August 22.

NORFOLK AND NORWICH HOSPITAL, NORWICH.—House-Surgeon; must have both Medical and Surgical qualifications. Applications and testimonials to Mr. T. R. Tallack, on or before September 8. Election on September 16.

PARISH OF UNST, SHETLAND.—Medical Officer. Applications and testimonials to Mr. White, Inspector of the Poor.

QUEEN'S COLLEGE, BIRMINGHAM.—Medical Tutor and Joint Demonstrator of Anatomy. Applications and testimonials to the Secretary on or before August 31.

QUEEN'S HOSPITAL, BIRMINGHAM.—Fourth Physician; must be a Graduate in Medicine of a British or Irish University or Graduate in Medicine of a Foreign or Colonial University, and F. or M.R.C.P.L., F.K.Q.C.P., or F.R.C.P. Edin. Applications and testimonials to the Special Committee on or before August 25.

ST. GILES'S AND ST. GEORGE'S, BLOOMSBURY, PARISHES OF.—Assistant Medical Officer; candidates must have the qualifications prescribed by the General Orders of the Poor-law Board. Applications and testimonials to Mr. John Robinson, Clerk, Vestry Clerk's Office, Broad-street, W.C., on or before August 21.

UNIVERSITY OF DURHAM COLLEGE OF MEDICINE, NEWCASTLE-ON-TYNE.—Medical Tutor. Applications and testimonials to Luke Armstrong, Esq., College of Medicine, Newcastle-on-Tyne, on or before August 31. It is particularly requested that no *original* testimonials be sent.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Bishop Stortford Union.—Mr. F. D. Beck has resigned the Sawbridgeworth District; area 7397; population 3050; salary £75 per annum.

Bury Union.—Mr. Francis Nuttall has resigned the First Tottington District; area 8887; population 13,259; salary £60 per annum.

Lexden and Winstree Union.—Mr. E. L. Fenn has resigned the Eighth District; area 11,640; population 3366; salary £60 per annum.

APPOINTMENTS.

Godstone Union.—Arthur G. R. Harris, M.R.C.S. Eng., L.R.C.P. Lond., to the Southern District.

Holborn Union.—Tom Robinson, L.R.C.P., M.R.C.S.E., L.S.A., to the First District.

Hoo Union.—George P. Applin, M.R.C.S. Eng., to the Workhouse and the District

ROYAL COLLEGE OF SURGEONS.—The following is an abstract of the unconfirmed minutes of the meeting of the Council on the 10th inst.:—Messrs. John Taylor Porter, L.S.A., and James Gledall, L.S.A., both of Sheffield, elected on the 13th ultimo, were admitted Fellows of the College, their diplomas bearing date, respectively, April 22, and August 21, 1840. Mr. John Buck Stedman, L.S.A., of Godalming, Surrey, was *elected* a Fellow of the College, his diploma bearing date March 5, 1841. The Council having confirmed their resolution of the 13th ultimo removing Mr. Frederick Henry Morris from being a Member of the College, it was resolved—"That the secretary do inform this person of such removal, and do call upon him to return his diploma as required by clause 5, section xvii. of the By-laws; and that Dr. Hawkins, the Registrar to the General Council of Medical Education and Registration, be informed that his removal was in consequence of his conviction for a criminal offence." The Council adopted the recommendation of the Court of Examiners that the subjects for the preliminary examination for 1872 should be the same as the present year. The museum and library were directed to be closed as usual during the month of September. Sir William Fergusson, Bart., and Messrs. Hilton, Hawkins, and Smith, were elected members of the Committee appointed to report on the mode of issuing the several diplomas granted by the College. The following donations were accepted, and thanks of the Council voted:—From Sir William Fergusson, a copy of the engraving of "Henry VIII. presenting the Charter to the Barbers and Surgeons," and a copy of the same in oil; from Mr. Edward Cock, three copies in different stages of the engraving of Sir Joshua Reynolds's picture of John Hunter, together with an engraving of the picture of Sir Astley Cooper. Letters were read from Drs. Hawkins, Carpenter, and Pitman, representing respectively the General Medical Council, the University of London, and the Royal College of Physicians, in reference to the formation of a Joint Examining Board for each division of the United Kingdom. The scheme was approved by the University of London, subject to a slight alteration in resolution X. thereof, and by the Royal College of Physicians. Mr. Birkett, in the absence of Mr. Quain, and in pursuance of the notice given by the latter at the last meeting of the Council, moved—"That a committee be appointed to investigate the expenses of the College in all its departments, and to report thereon, with a view to the diminution of expense where practicable." The motion having been seconded by Mr. Hancock, and the votes of the Council taken thereon, a majority was in favour thereof, whereupon Messrs. Hilton, Quain, Hawkins, and Birkett were elected members of such committee. Mr. Hawkins gave notice of the following motion for the next meeting of the Council after the quarterly meeting in October—viz., "To take into consideration the question of placing those who pass the examinations for the Fellowship in classes according to merit."

MEDICAL QUALIFICATIONS.—The following is an analysis of the Medical licences possessed by the 133 candidates examined at the last meeting of the Court of Examiners of the Royal College of Surgeons of England:—M.D. Edin., 1; M.D. Toronto, 2; M.D. Queen's University, Canada, 1; M.B. Edin., 3; M.B. Aber., 2; M.B. Dub., 2; M.B. Toronto, 2; L.R.C.P. Lond., 2; L.R.C.P. Edin., 6; L.R.C.P. Edin. and L.S.A. Lond., 3; L.S.A. Lond., 27; L.F.P. & S. Glasg. and L.S.A. Lond., 1; and L.K. & Q.C.P. Ire., 1.

THERE were sixty-one small-pox cases in the Canal-street Hospital, Manchester, last week. Eight patients had been admitted during the week, and one had died.

SMALL-POX has broken out at Stafford. In one family the father and mother have died, and the disease has appeared in another part of the town.

VACCINATION IN MARYLEBONE.—Mr. Dawn, the Vaccination Officer, reports that out of 3627 cases of default, reported between March, 1869, and August, 1870, only two persons absolutely refused to have their children vacciuated, and they have been prosecuted.

ACCIDENT TO A PHYSICIAN.—A sad accident has, we regret to say, occurred at Godney-hall, near Wisbeach. Dr. Crowden, accompanied by Mrs. Crowden, was driving along the road at the top of Southean Bank, when the horse took fright, and, dashing down the embankment, overturned the gig, and threw them both out. Dr. Crowden had his collar-bone broken, and his wife, besides being severely bruised and shaken, had both ankles broken. One leg has been amputated five inches above the ankle, and hopes are now entertained of her recovery.

At Hull, on Tuesday, the master of a vessel trading to Cronstadt was fined in the maximum penalty of £20 for taking his ship into dock, in breach of the Privy Council quarantine orders, before the crew had been Medically examined, although he had been warned.

The *Times of India* says that cholera has broken out at Linjah, in the Persian Gulf, and the mail steamers have not, in consequence, been calling there. Cholera also exists at Bahrein, on the Arab littoral, and in the Turkish camp at Khatif. Dr. Hart, of H.M.S. *Euphrates*, serving in H.M.S. *Magpie* in the Persian Gulf, has died of cholera at Bahrein. The heat in the Gulf was such, when the last steamer left, that twenty-four men of the crew of the *Magpie* were *hors de combat* from heat-apoplexy, and thirteen men of the crew of the *Bullfinch*, from the same cause. At 8 o'clock p.m., the heat was 104° Fahr.

The foundation-stone of a new Hospital for the west-end of Glasgow was last week laid by Mr. Walter Montgomerie Neilson. The Hospital is to be erected by public subscription; it will contain 332 beds, and provide a theatre for the Medical school.

Crystallised Aconitine. — MM. Duquesnel and Gréhaut have announced, in a recent communication to the Académie des Sciences, that they have succeeded in obtaining aconitine in a crystallised state. It is only slightly soluble in water, but dissolves in alcohol, glycerine, ether, benzine, and especially chloroform. It is decomposed at a temperature of 138° C. It is poisonous in almost infinitesimal doses, and is very analogous in its effects on animals to curarine.—*Gazette Hebdomadaire*, Aug. 4.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

A Member.—The library and museum of the College of Surgeons will be closed during the ensuing month of September.

L. D. S.—This qualification does not exempt you from serving on juries, neither is it registrable; write to Dr. Hawkins, 32, Soho-square, and Mr. Trimmer, Royal College of Surgeons.

Canting.—Dr. Cheyne, a Scotchman, weighed in 1715 more than thirty stone, but afterwards, by changing his habits and living on milk and vegetables, reduced himself to less than half that weight.

Anxious.—No definite period has yet been fixed for the poison of hydrophobia to lie dormant in the system. Cases are recorded in which the attack has followed the bite after an interval of six months, but these cases are not very well authenticated. There is some doubt whether the case referred to by our correspondent was a genuine case of hydrophobia.

Reader.—Sir Theodore Mayerne was Physician to four kings — viz., Henry IV. of France, James I., Charles I., and Charles II. of England. He was a man of singular address, and distinguished for his knowledge of chemistry and natural philosophy.

The Amalgamation of the British and Indian Medical Departments.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Every now and then one hears the question raised, whether it would not be advisable to amalgamate the British and Indian Medical Services. Some change is almost certain. It can hardly be expected that the present dual system will continue in India, and many seem to think that by joining the two services they would retain to the officers of the British Medical Department the prizes of the British Service Indian appointments; and, no doubt, looking at the matter from a purely British Medical Service point of view, this would be satisfactory to some, but it must be remembered that the Indian Service Medical appointments, taken as a whole, are very much more lucrative than those of the British Medical Department while serving in India, and that, in all probability, if the two departments are amalgamated, instead of the Indian pay of the British being raised to that of the local, the pay of the local will be lowered to that of the British. You are probably aware that the pay of the Local Service in India is much better in every way than that of the British while serving in India. So that, if once these services are made into one, the Profession at large will have lost the best-paid Medical service in the world. Would it not be better to try and retain this lucrative service for those who come after us, even if the price of so doing had to be paid in the shape of the present British Service being turned out of India? In time to come, looking at the matter from a Professional point of view (the Profession being considered as a whole), there would be quite as many appointments if the two services were separated as if they were amalgamated, and by retaining the old Indian as it is or extending it; appointments out in India would retain their present value, and the Indian Service would offer a field for those bent on the public service, the like of which they will never have offered to them if the Indian Service is amalgamated with the British and the pay reduced to the British standard. Of course, if by amalgamating the two services the pay of the British would be raised to the pay of the local, the case would be different; but do you think, Sir, there is any chance of that in the present age of economy? And as a step once taken is not easily recalled, it would be well for us to be very careful and not deprive our Profession of openings in life in the future merely for the sake of pleasing a few men at present serving in the British Medical Department. There may be reasons for making the two departments one that may carry the day; but calling attention to one pretty obvious result of the junction may make people a little cautious.

I am, &c.,

Look Forward.

Bombay.—The *Bombay Gazette* of the 6th ult. has an able leading article on the contemplated enlargement by Government of the Insane Asylum at Colaba. The writer is of opinion that the projected building is altogether a mistake, and shews by facts and reasons that the locality of the Asylum, with the single exception of being near the sea, is most objectionable. Every other topographical circumstance is against it; such as the roaring noise of the sea, the proximity of two graveyards, the glaring light of the lighthouse, and, most important of all, the utter absence of soil for gardening and farming operations, which are considered in every establishment in Europe and America a *sine quâ non* in the good treatment of insane patients. The water-supply is also imperfect. The *Gazette* insists that no alteration in the building at Colaba can supply the wants of the district, and protests strongly against the expenditure by Government of three lacs for an all but useless building. It certainly appears to us that the *Gazette* has treated the subject with much ability, and that its remarks are fortified by truthful reasoning.

Medical Officers of the Royal Artillery.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Under the above heading you had an editorial article in your *Gazette* last week. In it you completely ignore and set aside the existence of Assistant-Surgeons as being competent to take Medical charge of a battery of artillery. Your article was solely in favour of the Surgeons and Surgeons-Major, though you commence your leader by saying, "the prospects of Medical officers of this branch of the service are likely to be injuriously affected by the proposed change of organisation; yet, at the close of your article, you say, speaking of a battery, "it would hardly give sufficient employment to two Medical officers, and a Surgeon or Surgeon-Major would scarcely appreciate the position of Medical officer to a battery without an assistant." I would ask, Is not an Assistant-Surgeon equal to this duty? Is he to be set down such an ignoramus that he cannot take charge of a battery of artillery except under the surveillance of a Surgeon or Surgeon-Major? In common charity, let me beg of you do not administer so unkind a snub to those Medical officers who have the greater part of the work to do, for your paper has a world-wide circulation, and as your article now reads, a most undeserved snub is given to those who, with every respect for your editorial pen, are ever willing to sign themselves as I do now,

Yours faithfully,

August 7. Assistant-Surgeon Royal Artillery.

*** Our correspondent appears to have quite misapprehended the tenor of our remarks. On again reading them, he will observe that, so far from ignoring the existence of Assistant-Surgeons in charge of batteries of Royal Artillery, we distinctly alluded to them as likely to retain their present positions, quite independently of the Surgeons-Major and Surgeons now in charge of brigades. The method of disposal of the latter class of officers will present a considerable difficulty if the battery be substituted for the brigade system.

Sanitas.—The *Borough of Marylebone Newspaper* of last week contains a sensible letter with the above signature. After quoting a paragraph from the *Pall-mall Gazette*, respecting the evil influence exerted on health by the non-emptying by contractors of dust-bins sufficiently frequently, *Sanitas* says—

"And now I wish to improve on the above; the remarks are all very well, only they convey an erroneous idea as to the real subject of complaint and concerning the persons more immediately to blame. The nuisance could be at once done away with if householders would prohibit the practice by lazy servants of making the dust-bin a receptacle for all kinds of decaying matter and other rubbish. If nothing but cinder-ash were permitted to be thrown in the dust-bin there would be no 'nuisance' at all. Cabbage-stalks, potato-peelings, fish-bones, and all such useless articles, could be burnt. These regulations should be enforced by the authorities, who should institute a house-to-house inspection and levy a fine in all cases of neglect; if this plan were carried out we should hear no more of the dust-bin as a fever-nest and a propagator of cholera, which it now is."

Statistics of the Contagious Diseases Act.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Through your exceptionally impartial conduct, I have been enabled, on two former occasions, to call the attention of your readers to certain facts and figures, derived from the reports of Parliament of 1868 and 1869, which demonstrated that, up to that period, the Contagious Diseases Acts, so far from mitigating disease, had been attended by an increase in the numbers of soldiers suffering from venereal maladies; that, taking all the stations at which the Act of 1866 had been two full years in operation, the number of cases of disease treated the second year was greater than the number treated the first year. Here are the figures:—

Year.	Average strength at all stations.	Total number of cases of disease.	Percentage.
1867	15,930	3842	24·1
1868	15,308	3958	25·9

And they show conclusively that that disease is really aggravated by such measures. Since my last communication, the report of 1870 has been published; and, in conjunction with my friend, Dr. Hooppell, an eminent statistician, I have gone carefully over the figures. This document professes to give the number of cases of disease contracted in the districts themselves which are subjected to the Acts, for every year, from the introduction of the first Act (1864) to March 26, 1870. Such a basis of statistical compilation must necessarily be a very untrustworthy one; as, in many, if not all, of the cases, the statements of the patients themselves and mere conjecture must have been the groundwork of the conclusions come to. But, laying these considerations altogether aside, the return is crowded with errors of fact, and blunders of calculation of the most egregious kind; for instance, in the return of 1870, such things as the following occur:—From the previous returns we know that, at Sheerness, in 1867, 13·1 per cent. were treated in all throughout the year. The return of 1870 says that 14·06 of the whole number of soldiers at the station caught disease in the district itself—that is to say, more men caught disease in the district than had it altogether. The next year there is a remarkable fall; 3·92 per cent. are set down as having caught disease in the district, little more than a quarter of the number so set down the year before, yet the total number

treated in Hospital was 11·8 per cent.—almost as large a percentage as the year before. At Woolwich, we know from the Lords' report that the total number of men treated in Hospital in 1867 was 1283; the return of 1870 says that that number and nine more caught disease in the district—of course, the following year there appears again a marvellous reduction. At the same station the return says 288 men caught disease in the district in two months of 1866, whereas we find from the Lords' report that those 288 men were the whole number that were treated in three months at Aldershot. Again, according to the return of 1870, 1717 men caught disease in the district from April to December, 1867; the truth being that only 15·26 men were treated altogether in that time. Nor is this all; in addition to those errors of fact, the blunders of calculation in the returns of 1870 are most disgraceful. The cases which occurred during a few months of a year are taken as a basis, and the number which might have occurred in the rest of the year are then estimated from these, and put down as actually occurring. The errors sure to arise from these are very great, as the amount of disease in different months varies exceedingly. Then the framer of the tables has obtained his final percentages by adding together the percentages at the different stations, and dividing by the number of stations, apparently oblivious of the fact that there were widely differing numbers of men at the several stations, and that, to take a plain illustration, 23 per cent. on 14,000 and 4 per cent. on 2000 do not make 13½ per cent. on 16,000. Again, he has added in fresh stations every year, so that there can be no comparison between the different years, although they are written one under the other, inasmuch as the circumstances of the different stations are so diverse, and the amount of disease at them so unequal, that the constant adding the statistics of new stations to the general mass cannot fail to vitiate the whole. The conclusion come to by the compilers of this return, by the methods of calculation now described, was that disease had diminished one-half among the men at the stations at which the Acts were in force. The only real conclusion that can be drawn from the figures, which are the data of all the rest contained in the document, is that the amount of disease contracted in the districts which were under the Acts both in 1868 and in 1869 had diminished from 13·91 per cent. in the former year to 11·79 per cent. in the latter. But not even on this can any reliance be placed, for reasons already given. Here are the facts, and I leave your readers to draw their own conclusions as to the trustworthiness of the *ad captandum* statements which are so prominently provided by interested promoters of this iniquitous measure.

Nottingham. I am, &c., Thos. Worth, M.R.C.S.E.

COMMUNICATIONS have been received from—

Mr. Aspray; Mr. Stilliard; Mr. Sayce; Mr. G. Wilmot; Mr. Martin Murphy; Dr. Bree; Look Forward; Mrs. Baines; Mr. W. T. Law; Mr. S. Walker; Dr. E. Moore; Dr. Elleaton; Mr. John Simon; Dr. Stevenson; Mr. T. Worth; Mr. J. Wickham Barnes; Dr. Morell-Mackenzie; Dr. B. W. Richardson; Dr. F. R. Hogg; Mr. J. Chatto; Mr. H. Morris; Dr. J. J. Ridge; Dr. Whitmore; Dr. Day.

BOOKS RECEIVED—

Report of the Birmingham and Midland Hospital for Women—Bulletins et Mémoires de la Société Médicale des Hôpitaux de Paris, tome septième—Twenty-fifth Report of the Commissioners in Lunacy to the Lord Chancellor—Dr. R. A. Vance (New York) on Syphilitic Epilepsy—Dr. Mapother's Animal Physiology—Wormell's Mechanics, second edition—Wormell's Natural Philosophy, second edition—Our Eyes, and How to Take Care of Them, by Dr. H. W. Williams—A Manual of the Laws affecting Medical Men, by Robert George Gleun, L.L.B.—The Articles and Preparations of the British Pharmacopœia, pointed according to their Relative Values, by Dr. A. Harvey and Dr. D. Davidson—The West Riding Lunatic Asylum Medical Reports, vol. i., edited by Dr. J. Crichton Browne—Professional Grievances, by Dr. W. Ogle.

PERIODICALS AND NEWSPAPERS RECEIVED—

Nature—Pharmaceutical Journal—Mechanics' Magazine—Western Daily News—The Buxton Advertiser—The West Country Lantern—Food Journal, August—Dublin Quarterly Journal of the Medical Sciences—Australian Medical Gazette—The Times of India—American Journal of Insanity, July—Medical Press and Circular.

APPOINTMENTS FOR THE WEEK.

August 19. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

21. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

22. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

23. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

24. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; West London, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

25. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

VITAL STATISTICS OF LONDON.

Week ending Saturday, August 12, 1871.

BIRTHS.

Births of Boys, 1055; Girls, 1002; Total, 2057.
Average of 10 corresponding weeks, 1861-70, 1966·8.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	805	763	1568
Average of the ten years 1861-70	756·8	719·7	1476·5
Average corrected to increased population	...	...	1624
Deaths of people above 90	...	...	...

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561189	3	5	4	...	9	...	3	...	53
North ...	751668	45	3	5	4	6	2	6	...	65
Central ...	333887	2	1	2	...	3	...	...	...	29
East	638928	16	12	4	1	13	...	2	4	68
South	966132	30	7	15	...	10	4	2	3	84
Total	3251804	96	28	30	5	41	6	13	7	299

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·978 in.
Mean temperature	68·3°
Highest point of thermometer	88·2°
Lowest point of thermometer	51·9°
Mean dew-point temperature	57·0°
General direction of wind	E. & N.E.
Whole amount of rain in the week	0·00 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, August 12, 1871, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1871.*	Persons to an Acre. (1871.)	Births Registered during the week ending Aug. 12.	Deaths Registered during the week ending Aug. 12.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3263872	41·8	2057	1568	88·2	51·9	68·3	20·17	0·00	0·00
Portsmouth ...	113450	11·9	72	42	84·0	49·0	65·1	18·39	0·00	0·00
Norwich	80533	10·8	47	32	86·5	51·8	65·4	18·56	0·00	0·00
Bristol	183298	39·1	103	70	...	...	...	...	...	...
Wolverhampton ...	68476	20·2	65	12	84·8	50·3	66·4	19·11	0·00	0·00
Birmingham ...	344980	44·1	250	129	84·8	50·5	65·9	18·83	0·01	0·03
Leicester	95882	30·0	60	54	88·7	52·5	67·8	19·89	0·00	0·00
Nottingham ...	86929	43·6	49	44	85·7	52·8	66·6	19·22	0·00	0·00
Liverpool	493649	96·8	323	283	82·5	53·6	66·5	19·17	0·00	0·00
Manchester ...	356099	79·4	233	229	...	...	...	...	...	...
Salford	125422	34·3	95	74	85·6	50·2	67·2	19·56	0·00	0·00
Bradford	146987	22·3	114	59	84·0	53·0	67·4	19·67	0·00	0·00
Leeds	260657	12·1	220	143	86·0	51·0	66·1	18·94	0·00	0·00
Sheffield	241507	10·6	161	154	84·0	50·5	66·7	19·28	0·00	0·00
Hull	122266	34·3	77	39	84·0	47·0	64·3	17·94	0·00	0·00
Sunderland ...	98797	29·9	90	97	...	...	...	...	...	...
Newcastle-on-Tyne	128677	24·1	107	96	80·0	54·0	66·3	19·06	0·00	0·00
Edinburgh	201728	45·6	112	80	79·7	49·0	64·8	18·22	0·00	0·00
Glasgow	479227	94·7	313	296	76·3	51·3	64·1	17·83	0·00	0·00
Dublin (City, etc.)	310565	31·9	145	95	81·9	49·5	65·7	18·72	0·00	0·00
Total of 20 Towns in United Kingd'm	7204001	33·8	4696	3596	88·7	47·0	66·2	19·00	0·00	0·00

At the Royal Observatory, Greenwich, the mean reading of the barometer in the week was 29·98 in. The highest was 30·89 in. at 9 p.m. on Sunday, and the lowest was 29·88 in. at the end of the week.

* The figures in this column are the unrevised numbers enumerated in April last, raised to the middle of the year by adding 1-40th of the rate of increase which prevailed between 1861 and 1871. As the population of Dublin and its suburbs showed a decline between the Censuses of 1861 and 1871, the enumerated number in April last has been inserted above for that city, the population being assumed to be now stationary.

ORIGINAL LECTURES.

LECTURE ON OPTIC NEURITIS FROM INTRACRANIAL DISEASE.(a)

DELIVERED AT THE LONDON HOSPITAL.

By J. HUGHLINGS-JACKSON, M.D., F.R.C.P.,
Physician to the London Hospital and to the Hospital for the Epileptic and Paralysed.

1. *The Value of the Ophthalmoscope in Diagnosis.*—The Physician is as much indebted to Helmholtz as the Ophthalmic Surgeon is. You cannot investigate cases of cerebral disease methodically unless you use the ophthalmoscope. It will not pass nowadays to say that a patient is amaurotic. The amaurosis may depend on most different causes. In a former lecture (published in the London Hospital Reports, vol. iii.) on cases of Cerebral Hæmorrhage, I have given illustrations of the value of the ophthalmoscope in helping us to observe the width of tissue-changes in cases of Bright's disease. One of the cases there reported is important as showing you how a blunder may arise if we do not use the ophthalmoscope. A patient was hemiplegic of the left side, and afterwards became blind. We saw post-mortem disease—remains of blood-clot—in the right *optic* thalamus. Now, we might have supposed that disease of the thalamus *opticus* had caused the amaurosis, but the ophthalmoscope had shewn us the intraocular changes which occasionally occur with Bright's disease. The loss of sight had nothing to do with the lesion of the thalamus. Then, in some cases we "see syphilis," so to speak, in the fundus oculi. In the first volume of our Reports I have recorded the cases of three children, each of whom had choroiditis from congenital syphilis; one of the three was hemiplegic, another paraplegic and idiotic. The inference was warrantable—for treatment, at all events—that in the hemiplegic and paraplegic child there had been changes in the pia mater analogous to these we saw in the fundus oculi. In some cases of tubercular meningitis tubercular disease of the choroid is seen during life. As the diagnosis of no acute cerebral disease—in adults, at least—is so difficult as that of tubercular meningitis, this is a most important point in doubtful cases; and most cases are doubtful. A patient who has valvular disease of the heart may become suddenly amaurotic of one eye, and we may then see something of the embolic process as it affects the vessels and other elements of a nerve-termination. These are but crude hints of the value of the ophthalmoscope as an aid to investigation. I refer you to most valuable papers by Dr. Clifford Allbutt (*Medical Times and Gazette*, 1868), or, better still, to his forthcoming book on Medical Ophthalmoscopy, for a knowledge of the great importance of the ophthalmoscope in the investigation of Medical cases.

2. *Morbid Ophthalmoscopical Signs rarely absent in Amaurosis from Cerebral Disease.*—There nearly always are abnormal ophthalmoscopical appearances when amaurosis, excluding temporary loss of sight (See No. 7), attends cerebral disease. I mention this as it is sometimes taken for granted that because sight fails *from intracranial disease* there will be no abnormal ophthalmoscopical appearances. One hears it said, "The changes are in the head, not in the eye." It matters not how amaurosis is caused, there are, with rare exceptions, changes to be seen in the fundus. In Physicians' practice we mostly see double optic neuritis, or its sequel, optic atrophy. In a few—a very few—cases of amaurosis there are no morbid ophthalmoscopical appearances. In the few cases of hemiopia I have seen there have been none. In one of these cases total blindness followed, and *then* the discs showed signs of simple atrophy.

In no case can you say with certainty that there are absolutely no abnormal ophthalmoscopical signs unless you have examined the eyes by the direct method.

3. *Optic Neuritis the commonest Ophthalmoscopical Condition in Cases of Cerebral Disease—Optic Neuritis as important in the Diagnosis of Cerebral Disease as Hemiplegia.*—I wish to speak in this lecture of the commonest abnormal ophthalmoscopical appearances which occur in *Medical* practice—of optic neuritis and its usual sequel, optic atrophy. We often *see* a pathological condition of the end of an important cranial nerve where it breaks up into an elaborate nerve-termination as plainly as we see pathological conditions of the skin. Observe, I say a "pathological condition"; for optic neuritis is not a symptom, or, at all events, it is not a symptom in the same sense that hemiplegia or convulsion is. In a case of optic neuritis with convulsion, the proper comparison is of *amaurosis* with convulsion and of *optic neuritis* with the pathological *condition of grey matter*, on discharge of which the convulsion depends. We shall see (No. 5) that the pathological condition, optic neuritis, is sometimes unattended by the symptom amaurosis.

The great object I have in view is to show you *how* optic neuritis is of value in diagnosis. I think I do not exaggerate in saying that it is of as great value in diagnosis as hemiplegia; but its value is of a totally different kind. Hemiplegia points to the *position*(b) of intracranial disease; double optic neuritis does not point to the position of intracranial disease, but is most important evidence as to its *nature* (See No. 9).

4. *The Stages of Optic Neuritis.*—I now tell you what you see in cases of optic neuritis at different stages. In the sense that there are abrupt differences, there are no stages; there are gradual changes from the beginning of the process through its ascent to a climax of acute change, and in its descent to the permanent change — atrophy. Nevertheless, although the changes are gradual, the appearances are strikingly different at different times, and most unlike at the two extremes—the height of acute change and permanent atrophy. We will make four stages. You will have gathered from what I have just said that this division into four is arbitrary. I used to make two stages only. It is, I think, convenient to make four, for learners, at all events. The following is an account of what is seen at different stages of a severe case. I use the expression "severe" advisedly, as cases vary so much in degree and progress that I do not pretend to be able to describe "typical" cases. Particularly observe that cases do not always run through these stages. There may be retrocession from either the first or the second stage, and *not* a progress to atrophy. I speak of what you may see by the indirect method of examination:—

(*a*) *The Onset.*—The disc is redder (and more coarsely red), slightly swollen, and therefore prominent. Its edge is indistinct, and the arteries are slightly obscured from the swelling. The veins are large, dark, and tortuous.

There are two sources of difficulty here:—

1st. You must not mistake a physiological peculiarity for a pathological condition. For this reason I have given as the stage of onset an account of appearances of neuritis decidedly begun, one about which, I think, no mistake could easily be made. You may say that the existence of defect of sight will help you to determine whether what you see is an individual peculiarity or a morbid change; but the defect of sight may be owing to a fault of accommodation. Besides (see No. 5), there may be no defect of sight when there are extreme ophthalmoscopical changes. This matter is one too important for me to handle here. I must refer you to works on ophthalmic Surgery, and particularly to Liebreich's Atlas (Swanzy's translation). (See, also, remarks by him, Clinical Society, October 28, 1870, *Lancet* report, November 5, 1870.)

2nd. The condition may be the early stage of the swollen disc (Stauungspapille of Graefe). I think in the swollen disc the swelling more rapidly developes, and smooths off more gradually into the fundus, and that the surface is more uniform and glistening. I confess that this attempt to shew the difference in the two things is of little value, and that I often cannot tell by the ophthalmoscopic appearances whether there is optic neuritis or the swollen disc.(c) That there are two different things clinically I have no doubt; and although it is reasoning in a circle, I may say that you can sometimes infer by clinical

(a) This lecture was delivered several years ago, and, with modifications, again in June last, in reference to particular cases of cerebral disease. As since 1863 I have published numerous papers on Medical Ophthalmoscopy (Royal London Ophthalmic Hospital Reports), this lecture necessarily involves considerable recapitulation; but there is no impropriety in reproducing in a condensed form the facts stated in former papers, and the opinions therein expressed, now partly modified.

(b) It is not meant that the *mode of onset* of hemiplegia is of no value in the diagnosis of the nature of the lesion. What is meant is, that the *range* of the paralysis, when developed, is no evidence of the nature of the lesion. Yet it must be admitted that when hemiplegia is very extensive in range—when there is lateral deviation of the two eyes and of the head, as well as palsy of the face, arm, and leg—the diagnosis of a *sudden* lesion, and, therefore, inferentially of embolism or clot, is much assisted.

(c) Liebreich, after speaking of the elements in the diagnosis of the several forms of neuritis (engorged papilla, neuritis descendens, and neuritis intra-ocularis), says:—"Unfortunately, however, such perfect transitions exist that in but a *small* number of these cases is the certain arrangement of the morbid condition *in its proper class possible.*" (No italics in original.) See also the papers of Clifford Allbutt on what he names "Isehæmia of the Disc."

evidence whether what you see is neuritis or the swollen disc. I shall have more to say on this point later on.

The changes of this stage may gradually disappear. There is frequently, if not mostly, no defect of sight in this stage.

(*b*) *Second Stage.*—In this condition the disc is quite lost in a patch, which is about two or three times the diameter of the normal disc. The arteries are not traceable, or only faintly here and there, in the patch, which from great swelling is much raised above the neighbouring fundus. The veins are very large and tortuous, and are more or less obscured in the patch, and seem to "knuckle" over its edge. There are scattered blotches of effused blood on and beyond the patch, especially near its margin. There are often, also, near the edge, small shapeless white patches, sometimes edged with blood. Occasionally there are, especially near the macula lutea, brilliant white spots, quite like those sometimes seen in cases of Bright's disease.(d)

It is of very great importance to recognise that the appearances of this stage may clear away, the discs resuming a nearly healthy aspect. As, however, it is by no means easy to declare that a disc is absolutely healthy—since the physiological differences are very great—it is best to say that after stage *b* the abnormal ophthalmoscopical appearances remaining may be so slight that a critical examination by the direct method is necessary for their detection.

(*c*) *Third Stage.*—The descent to atrophy begins. The blood has cleared away. We again see something like a disc, but there is much swelling, and the edge of the so-called disc merges into the fundus. We trace the arteries again, but they are still partly obscured, and the veins are tortuous.

This third stage may be taken for the first stage. I believe it is the stage which is usually first seen by those who do not look into the eyes until sight fails. It is sometimes called the swollen disc.

(*d*) *Fourth Stage.*—The stage of permanent atrophy. The disc is now white; its margin is distinct, but not so clearly defined as in health, and the vessels are traceable, the swelling having disappeared.

But there are two kinds of optic atrophy. If, then, we see an atrophous disc, not having any account of the earlier conditions, we have to determine whether the atrophy really is consecutive to *inflammation*, or whether there has been slow atrophy from the first, without inflammation. Observe: atrophy may be the result not only of the quasi-simple neuritis I have described, but of syphilitic or albuminuric neuro-retinitis. Liebreich says:—"If the atrophy be complete it is of course impossible to decide by which of the different forms of neuritis it has been produced. The only question, then, is to discern that the atrophy is consecutive upon a neuritis—that is to say, to distinguish it from other forms of atrophy. For this purpose the ophthalmoscopic appearances supply us almost always with sufficiently well-marked signs."

The atrophy which begins by a non-inflammatory process has quite a different clinical significance from that following neuritis. It may be called spinal, because it is the form of atrophy which sometimes occurs with—I do not say, occurs from—a certain spinal affection: locomotor ataxy. It may be called more simply a progressive atrophy, because it is an atrophic change from the beginning, and progresses slowly.

In the atrophy after optic neuritis the edge of the disc is not distinct; the whiteness is a more opaque whiteness; the lamina cribrosa(e) is not well seen, from remains of effusion; the arteries are thin, and the veins remain irregular, and we occasionally see very small whitish patches, extending over the boundary of the disc on to the neighbouring fundus.

As to the simple or spinal atrophy, I quote what Liebreich says of "an atrophic, slightly excavated papilla, taken from a man aged 40, suffering from locomotor ataxy and completely blind. The bluish-grey colour, and great disturbance of the lamina cribrosa, and of the nerve-boundaries, combined with the repletion of the vessels, especially of the veins, which, although thinner than in the normal eye, are considerably larger than in other cases of atrophy, all these appearances, although not characteristic of spinal amaurosis, seem to me to occur most frequently in such cases."—"Atlas," p. 26.

5. *No Defect of Sight in some Cases of Neuritis.* In all cases of cerebral disease the ophthalmoscope should be used, whether the patient has defect of sight or not. For it is quite certain that there may be extensive changes of neuritis; those even of Stage *b*, for instance, when the patient does not know that there is anything the matter with his sight, and when he can read the very smallest of our test-types. The early stages of optic neuritis (*a* and even *b*) are, I believe, not unfrequently overlooked by those who do not use the ophthalmoscope until sight begins to fail. Thus a much later stage (*c*) may be taken for the first stage of the neuritic process. Indeed, optic neuritis may be altogether overlooked by those who do not use the ophthalmoscope by routine in cerebral cases, as the neuritis may retrocede from the second stage (*b*)—(*vide supra*)—in which stage, as above remarked, there may be no defect of sight. And when there is failure of sight it is often quite out of proportion to the abnormal ophthalmoscopical appearances, or, more correctly, to what we should theoretically infer from the degree of these appearances. This is so, also, of syphilitic and albuminuric neuro-retinitis, even when in the latter there are hæmorrhages. Hence, in cases of cerebral disease you use the ophthalmoscope as a matter of course, just as you examine the urine as a matter of course. If you do not, you will often overlook a very striking pathological condition. At all events, you must never omit to use this instrument when the patient has severe headache. [I have spoken of conservation of sight in neuritis so many times that I will here say nothing further. It was first, I believe, pointed out by Blessig. (See Royal London Ophthalmic Hospital Reports, 1865; *Medical Times and Gazette*, February 8, 1868, and June 3, 1871); in the last paper I give the opinions of Ophthalmic Surgeons.]

6. *Optic Neuritis almost invariably Double.*—As the title of this lecture implies, I speak of cases occurring in Physicians' practice. But it is a rare thing to see uniocular optic neuritis, I believe, even in ophthalmic(f) practice; but it unquestionably occurs. I have seen it also in a case where the symptoms seemed plainly to indicate intracranial tumour. I have seen it of the right eye in a patient who had, as the autopsy showed, gliomatous tumour of the left cerebral hemisphere;(g) but, I repeat, it is very rare indeed for Physicians to see an uniocular optic neuritis—in other words, it is rare in cases where there are special nervous symptoms such as convulsions and hemiplegia. One eye may suffer more than the other, but nearly always both suffer somewhat; nearly always at the same time; and they are nearly always in the same stage.

We are not to be satisfied with what the patient says of the sight of each eye. This is seemingly an absurdly unnecessary remark; but it is well to make it, as I have known instances of error resulting from investigators merely writing down in notes of cases what the patients say of their sight. A patient may say that he has lost the sight of but one eye, when the sight of the other also is very much impaired. We should test both eyes by reading, and use the ophthalmoscope. I have known a patient say that he only had defect of sight of one eye, and yet with the "good" eye he could read but very large print, and the optic disc of this eye showed marked atrophic changes. His account was received as correct by several observers; therefore, I may mention that Dr. Hermann Pagenstecher, who saw the patient, agreed with me that there was marked atrophy of each optic disc. This patient misled more than one investigator into the belief that disease of the *right* hemisphere, which he evidently had, had caused loss of sight of the *left* eye only. (His case is recorded in a paper on Convulsions, St. Andrews Reports, vol. iii.).

7. *Paroxysmal Failures of Sight in Optic Neuritis.*—Although sight may be good in acute neuritis, it may fail occasionally for a minute or two, and the degree of failure varies from a little dimness to total darkness; the last is rare. More frequently, however, temporary failure of sight occurs in patients whose fundus presents no abnormal appearances. These cases must be considered here, as neuritis may supervene. The temporary defect may possibly be owing to failure of accommodation, or

(d) Hutchinson (Royal London Ophthalmic Hospital Reports, vol. v., p. 308), in some cases of optic atrophy in children, no doubt the sequel of neuritis, has seen at the yellow-spot region groups of highly refractive globules, resembling at first glance clusters of spiders' eggs. Dr. Herm. Schmidt and Dr. Wegner (*Archiv. f. Ophth.*, Bd. xv., Abth. iii., s. 253—275) report a case of cerebral tumour in which the ophthalmoscopical signs were quite like those in a case of kidney disease. (See Dr. Noyes's report on "Ophthalmology," *New York Medical Journal*, February, 1871, p. 210.) This report contains many particulars of great interest to Physicians as well as to Ophthalmic Surgeons.

(e) Liebreich says ("Atlas," p. 26) that the veiling of the lamina cribrosa is of the greatest possible importance for the differential diagnosis of the various forms of atrophy, and that it has not yet been appreciated as it ought to be.

(f) See cases by Brudenell Carter, *Lancet*, November 5, 1870.

(g) This case, of which the life history was taken by myself and Mr. G. Ernest Herman, will be published in the next number of the Roy. Lond. Ophth. Hosp. Reports, as part of a paper by Dr. Hermann Pagenstecher, of Wiesbaden, together with an account of a microscopical examination of the eyes by that distinguished ophthalmologist. Dr. Pagenstecher saw the patient during life.

possibly to irregular action of the external ocular muscles. When there is total darkness it cannot be thus caused. I used to call cases of temporary failure of sight Epilepsy of the Retinæ; but, since I cannot know that the retina is really the part at fault, I now use the term Epileptiform Amaurosis. I do not speak of temporary alteration of vision caused by stooping or by getting up suddenly. I read you a case which I recorded (Royal London Ophthalmic Hospital Reports, 1863):—One morning, Julia W., a middle-aged woman, came to me, saying that for five whole minutes she had been "blind." She was at the time seated peeling potatoes. The blindness came on suddenly and left suddenly. It was not total darkness, but "dark," which was the word she used herself in describing it. It was not from failure of accommodation. I asked her to look through a very strong convex glass. It was not like that, she said. It was not spots, nor specks, nor clouds, nor colours. When I saw her a minute afterwards, she could read well with each eye, and the fundus of each, as seen by the ophthalmoscope, was normal. She had headache across the forehead, which continued the next day. She said it felt "tight" across the forehead. She had no giddiness. She was regular, but subject to dyspepsia.

I do not know what importance is to be attached to these temporary losses of sight when the appearances in the fundus are normal, and when there are no other nervous symptoms. The patient whose case I have related kept well for about two years, when I lost sight of her. I think we can attach little evil importance to them if the patient suffers no severe pain in the head and has no other nervous symptom. If there be severe and continued pain in the head, and especially if there be purposeless vomiting, the future onset of double optic neuritis is to be feared. Again, if the patient have *any* other *local* nervous symptom, the onset of neuritis is to be feared.

The most interesting association of paroxysmal failure of sight is with convulsions *beginning unilaterally*. In a few of these cases there is defect of sight about the time when the spasm begins in the hand, face, or leg, and there may be either simple failure of sight or there may be coloured vision. In these cases the onset of neuritis is to be feared, especially if there be severe pain in the head. I have recorded two cases of this kind (*Medical Times and Gazette*, June 6, 1863), but I was unable to hear what became of the patients. A patient, whom I still frequently see, consulted me in 1862, because he had had a fit which began in his left cheek. At the same time his eyes "became dim and sparkled." He became insensible. After this visit he ceased to attend, but some months after I sought him out, and then found that he was blind of the left eye, and partially of the right, from the effects of optic neuritis. He had left hemiplegia also. He subsequently had seizures in which spasm attacked the face or hand on the left, and in which he had "sparkling" before his eyes (Royal London Ophthalmic Hospital Reports, vol. v. part 4, p. 293). So we see that temporary loss or disorder of vision may precede optic neuritis, may occur with optic neuritis before sight is affected, or may occur when the optic neuritis has much damaged sight.

(*To be continued.*)

ORIGINAL COMMUNICATIONS.

CASE OF CEREBRAL RHEUMATISM TREATED BY COLD BATH.

By W. MOXON, M.D., F.R.C.P.

In the following case, after other measures had failed, cold immersion was tried as a last resource to endeavour to bring down the temperature in a case of cerebral rheumatism. Success, such as it was—and it was painfully far from being complete—gives a certain encouragement to the use of this means in practice.

R. B. H., aged 23, a policeman, was admitted to Guy's Hospital, under Dr. Moxen's care, November 27, 1870. He was a strong-looking young man, with dark hair and eyes; he had always enjoyed good health, and lived well. This was his first attack. Three days before admission he awoke in the morning and found his ankles swollen a little; he kept about that day in pain. The next day his knees also were swollen and painful; still he could walk, though in much pain. He then had a sleepless night, and on the following morning was quite helpless; his hips sharing now in the trouble, and his hands being affected. He was then admitted, and offered the usual appearance of a case of acute rheumatism of medium severity. The joints very painful; the skin covered with slightly acid perspiration; the urine loaded with lithates; the appetite lost; his pulse was 119, full, regular, and compressible; the first sound of the heart was weak and short, otherwise the state of the chest was healthy and its movements free; axillary temperature 101°.

He was at once put under a treatment by alkalies; a scruple of pot. acet. and a scruple of pot. carb., given effervescing with citric acid every four hours, until the urine should become alkaline. This happened within twenty-four hours, and then the doses were reduced to half the quantity, which sufficed to keep up the alkaline state. The sweat at the same time became neutral. Ten grains of Dover's powder were given at night, and a rhubarb purge was twice given on account of obstinate constipation. The temperature fell a little the next day (to 100°), but other joints had been attacked. The next day it rose to 102°, and he was plaintive, sleepless, without appetite, tongue covered with a brownish fur, the heart's sounds free from murmur, but the first sound nearly inaudible; sweats profuse. The next day he was no better; the sweat had again an acid reaction. The tenderness of the knee-joints was chiefly seated over the internal lateral ligament, where it was exquisite, while other parts of the joint bore handling pretty well. The temperature was 100·4°; the first sound of the heart very indistinct. The pulse then gradually came down to 86, and reached 74 by December 8, the temperature in the meantime rising to 103°, and the respiration numbering 38. The diaphragm was now kept quiet in breathing, and some pain suffered on deep inspiration. As yet, however, no further abnormal sound was heard in the chest. For the next four days his pulse was between 70 and 80, and the temperature varied from 104° to 101°.

On the 13th a sudaminous rash appeared over the trunk, and a rub was heard over the heart's surface synchronous with its action, but only during inspiration, and only over the heart on its left side. He was too ill to be raised in bed. Although his whole condition was worse than ever, he now said he was much better and free from pain; but his eyes glistened with a singular appearance, and his manner was excited. In the night he was delirious, and the next morning his temperature was 105°, pulse 102, respiration 32; perspiration and urine were acid in reaction.

The next day the temperature was 106°, pulse 104, and he was quite delirious. A slight systolic rub was to be heard over the heart, but only on inspiration, so that the probability of pleurisy outside the pericardium was inferred. A grain of antimony was given every quarter of an hour until four grains were given, but the temperature rather rose than fell.

The condition of the patient was now very threatening. Muttering delirium, carphosis, and intense heat showed that he would soon be sinking. He was then taken from his bed and put into a cold bath, the temperature of which was 64°. The water was about twelve inches and a half deep in the bath, and its temperature rose during the immersion from 64° to 68°, whilst the patient's temperature fell from 106·2° to 98°. When in the bath water was poured over his head to prevent cerebral congestion, if it be so caused. On removal from the bath he was put to bed, and rubbed dry and wrapped in woollen blankets. He was quite conscious all the time he was in the bath, and continued so for a quarter of an hour afterwards, but his delirium and carphology then returned gradually, and his temperature rose slowly and gradually, reaching, at five o'clock in the morning, 105°; the patient very delirious. Dr. De Liefde, the House-Physician (who carried out my wishes with his usual ability and firmness), then gave brandy up to three ounces in the course of three hours, but without any benefit. At half-past nine the next morning Dr. De Liefde saw him, and thus described his condition:—"He was very delirious, caught hold of the bedclothes, the curtains, or my coat and hands. The pulse was 172 per minute, as far as I could ascertain, but full; his face looked congested; he mumbled with his lips, and his skin was of an arid heat; the temperature of axilla 108°. Considering that, in my opinion, he was materially benefited by the former bath, which, I believe, had already prolonged his life, I determined to follow out the instructions of Dr. Moxon, and immersed him again. He looked very blue in the face and was very delirious, so I did not keep him in longer than four minutes, and, on removal, had him rubbed again by the nurses. His condition was not much changed by the second bath; he remained blue; temperature 103·2°; pulse 152; and continued to be delirious. On my return to the ward after an absence of half an hour, he had died ten minutes ago."

The foregoing case may prove interesting to those who have

joined in the disposition to attempt the reduction of extreme pyrexia by direct application of cold water. I was led to employ the cold bath through the belief that patients in cerebral rheumatism with intense fever die of the heat immediately—indeed, are in a way seethed to death in their own fluids. As to the partial success obtained, it should be noted that it is by no means a usual thing for patients in cerebral rheumatism, when delirium has once set in, to be brought out of it by any remedial means. In one case when the temperature was 109° I ordered the patient to be bled, and he died during the operation. To another patient, whose temperature was 104·5°, and whose manner was becoming excited, I had brandy administered in one-ounce doses frequently repeated; but the temperature rather rose than fell, and although the patient recovered afterwards while taking quinine, yet the benefit by no means distinctly followed the use of that drug.

The history of the present case shows, on the other hand, an immediate decided and great relief from the use of the cold bath, all the active symptoms disappearing with the fall in temperature. It is true this benefit was only temporary, but so was the remedy; and though when the remedy was repeated a less effect was got, yet it will be seen that the patient was then so far gone that the House-Physician did not think it safe to reduce his temperature below 103·5°, itself a temperature of high fever with delirium. The use of cold suddenly to such an extent was determined on in this case partly on account of the urgency of the case, and partly because it seemed to me desirable to get the effect of it decidedly, so that as little doubt of its efficacy as possible should remain in the minds of those who saw the trial. But it is probable that an equally good effect would be more surely and safely got by cold sponging or continuous cool bath. Cold sponging in high fever has, I believe, fallen out of use very undeservedly. Several cases of threateningly high temperature (107° to 109°) have been recently treated at Guy's under the supervision of our able House-Physician, Dr. Douglas; and he, watching the immediate result with a care I know well I can rely on, is satisfied of the great benefit it effects at the time of its application; while I can confirm the belief in its efficacy from my observation, though that has been usually less immediately at the time. As we know that such a temperature as we were dealing with actually causes the white blood-corpuscles to cease their movements and contract closely, while at 113° some elements of the blood begin to coagulate, it is certainly necessary to prevent the temperature reaching these heights by all possible means, and we do possess entirely efficient means. It is our fault if the patient dies of being too hot.

SPECIFIC ULCERS ON THE LOWER EXTREMITIES.

By C. HOLTHOUSE, F.R.C.S.

Among the many anomalies, or apparent anomalies, in connexion with the subject of syphilis must be reckoned the occurrence of certain ulcers on the lower extremities, having specific characters and yielding only to specific treatment, yet occurring in persons who are otherwise perfectly healthy, and in whom there is no antecedent or hereditary syphilitic history. "It is not very rare," observes Dr. Paget, "to find patients who have continued for ten or more years subject to these ulcers, but to no other form of syphilis."(a) I have met with several such cases, and the following may be regarded as a typical one.

M. F., aged 29, a healthy, fresh-coloured, good-looking young woman, well-grown, with a remarkably fine set of white even teeth, free from any traces of struma or syphilis, and with no history of syphilis, either hereditary or acquired, was admitted into the Westminster Hospital under my care on June 7, 1870, with a large oval patch of diseased and ulcerated skin on the upper and front part of the left leg, and partly surrounding it. The patch measured eight inches and three-quarters by four inches and a half, reaching as high as the lower half of the patella, and four inches and a half below this, which was its short axis. It was of a livid red colour, thickened, and raised above the surrounding healthy skin, and its surface uneven from tuberculous-looking elevations and numerous small ulcers, roundish in form, from the size of a florin to a pin's head, in various stages of spreading and healing; the first sloughing, the second granulating.

History.—Had been under my care three years before for a similar ulceration in the same site. Although one of the ulcers was larger and deeper than any of the existing ones, and had been preceded by a "lump," which appeared without obvious cause, it healed perfectly under the use of iodide of potash, and she left the Hospital well in February. In the following June, when the cicatricial skin had nearly returned to its natural colour, the patient struck her leg against the bedstead, and slightly grazed the new skin. This was followed by inflammation of the part, and small vesicles formed, which broke, and left ulcers; some of these healed, while fresh ones formed, and this has been going on for the last two years, in spite of treatment by various Medical men, and a residence of several weeks at the seaside. Finding no improvement, she left her situation, and went home to her parents in Derbyshire, where she has been attended by their own Doctor for the last six months, taking all this time cod-liver oil and steel wine, and applying a lotion of nitrate of silver to the sores. As this treatment proved of no avail, she determined on coming up to London, and again placing herself under my care. She was at once ordered five grains of iodide of potash three times a day, and black wash to the ulcers, while the students were specially invited to watch the results.

On July 13 the note is—"All the sores have healed, but the skin is of a leaden colour, tuberculated, slightly warty, and with numerous bridles or tongues running obliquely downwards and slightly inwards. The cicatrix has more of a strumous than a syphilitic character."

It ought to have been stated that this patient has ten brothers and sisters, all remarkably healthy and fine-grown, she being the eldest but one. Her father and mother are also both living, and very hearty.

(a) "Holmes's Surgery," second edition, vol. i., p. 192.

ON A MODE OF FORMATION OF URINARY CALCULI AND THEIR SPONTANEOUS PASSAGE THROUGH THE URETHRA.

By BERNARD KRAUS, M.D.

In our number for June 3, page 629, we inserted a paper by Dr. Kraus hearing the above title, and he has since published in the *Allgemeine Medicinische Zeitung*, of which he is the editor, an account of an examination that he has made of the calculi and of the urine in two of the cases in question. This was performed immediately after the calculi, expelled during a strong flow of urine, had been received in a glass vessel prepared for the purpose. These analyses, Dr. Kraus observes, confirm in the most decided manner all his published observations relating to the peculiar form of catarrh of the bladder combined with the phosphatic diathesis first described by himself, the condition of the bladder during this affection, as also of the nature of the catarrhal product and of the sediment prior to its formation into concretions.

In the first case, the small stone weighed fifty-four milligrammes, was of a pure white colour, and consisted almost entirely of phosphates, there being only slight traces of carbonate of lime, and none whatever of urates or oxalates. The second calculus, weighing more than forty milligrammes, was externally covered with blood, owing to bleeding of the urethra having been caused by its passage. After it was washed, it was also of a milk-white colour, and entirely resembled the other in its composition. In both cases the urine also furnished entirely similar results. Immediately after being passed it was of a reddish-yellow colour, and turbid, the upper portion becoming clear after standing a few minutes, while the lower became more turbid. Its specific weight was 1020. Immediately after being passed it was slightly alkaline throughout; but after some minutes it was amphigenous in its upper strata, and alkaline in the lower. At the end of an hour it was acid in the upper and alkaline in the lower strata. Of abnormal matters, there were only traces of albumen, phosphate of lime in lumps, and a very small amount of carbonate of ammonia. A purulent mucus was at once deposited, which under the microscope could not be distinguished from pus. The triple phosphates were from the commencement swimming throughout all the strata of the urine, giving it the appearance of coagulated milk; and in ten or fifteen minutes they had collected together at the bottom of the vessel. There were large masses of bladder-epithelium, and phosphate of lime was in abundance; but there was no trace of epithelium of the kidneys or of the passages. Uric acid was diminished, while urophæsin,

uroxantin, urea, the chlorides and sulphates exhibited no difference to normal urine.

A portion of this urine having been allowed to dry in the sun, small concretions were soon formed from the phosphate of lime and triple phosphates, which entirely resembled the composition of the calculi above described. Rubbing them between the fingers gave a sensation like that from sand, and the beautiful triple-phosphate crystals shone in the sun like diamonds. The conglomeration of the sediment also took place when the urine was rapidly cooled.

"These very interesting chemical results of the examination of the calculi and the urine, in which the former, so to say, exist in a nascent state, throw life upon the condition which I have described as a peculiar catarrhal affection of the bladder dependent on the phosphatic diathesis, and confirm the correctness of my symptomatic and diagnostic indications. It is thus made evident that there is a form of catarrh of the bladder in which the triple phosphate and phosphate of lime play the chief part by depositing in masses, and that these crystals can be immediately produced in the bladder itself, since the kidneys are entirely unconcerned in the process, inasmuch as epithelium, neither of the kidneys or the passages, has been found in the sediment. It has been, moreover, shown that this form of calculous formation is entirely free of urates or oxalates, no other constituents than the phosphate of lime and triple phosphate being present. It is demonstrated by this examination of the urine that only very small portions of the phosphate and triple phosphate are concreted, inasmuch as the calculi are expelled from the bladder amidst a mass of similarly formed sediment. It is possible that the concretion may take place in the urethra itself, as it is otherwise not explicable why the mass should not form into large calculi in the bladder.

"In calculi of other forms of composition, and especially the oxalate, the urine does not contain similar salts, as is observed with regard to these phosphatic calculi. Almost every atom of the oxalate is utilised for the formation of the calculus, while in this formation there is contained dissolved in the urine as much lime as would equal in weight that which has been expelled. It is, moreover, evident that these calculi are solitary, as by means of the catheter we are able to convince ourselves that beyond the small stone expelled no other concrement exists in the bladder, and that several of these concretions do not take place at the same time. The most careful examination made by the most practised hand is unable, after the removal of the small calculus, to find any other in the bladder; and this seems to favour the view that this kind of calculus may be first formed within the urethra itself—apparently in its prostatic portion.

"As a further result of the foregoing examination of the urine is the confirmation of my assertion, that this description of concretion takes place within the body when there is a deficiency of water, and when the urine is wanting in sufficient warmth to hold the phosphates in solution or suspension. I have often witnessed after colds the sudden production of the febrile action which I have already described as characterising the period of formation of the calculus. The purulent mucus, and pus in its most decided form, which, besides the sediments, occur in such large quantities in the urine in this form of disease of the bladder, and which in former communications I have in part appreciated, were also found on the examination of the urine in the present cases. Again, this offers a proof that the pus cannot exert the deleterious effect attributed to it by the earlier clinical observers; for these patients who furnished the calculi and the urine for examination had been passing purulent mucus for years, and yet, except when threatened with obstruction of the urine by the calculi, enjoyed the best health."

ON RHEUMATISM.

ITS NATURAL AFFINITIES.

By J. JAMES RIDGE, B.A., B.Sc., B.S., M.D. Lond.

(*Continued from page* 215.)

In the last paper on this subject I stated my belief that the most obvious way of obtaining a knowledge of the correct pathology of rheumatism is to study its natural affinities. By these I mean—first, diseases which are excited by causes similar to those occasioning rheumatism, and which may be excited simultaneously, or may alternate with it, or exist altogether separately from it; and, second, more remote diseases which are consistent with rheumatic symptoms, and often associated with them.

I.—Diseases excited by the same Cause as Rheumatism.

The diseases I shall chiefly mention under this head are those in which the cause is obvious, and the most obvious cause is cold, generally associated with damp. I do not now discuss the question whether this is the only exciting cause of rheumatism, nor whether there must necessarily be a predisposing cause. I believe predisposition generally exists, and, on the other hand, also, that there may be repellant influences which obviate the effect of cold in some cases. I will not discuss the question, either, whether the predisposing cause is a morbid poison in the blood. I wish to point out the effect which "cold" has in producing morbid action, which, as far as we can possibly know, would not have occurred without that cause; also, the relations which exist between these diseases and the disease called "rheumatism."

The diseases rightly or wrongly attributed to cold are legion. Let us take a few:—

a. Herpes and Impetigo.—We see these shading into one another by insensible degrees, and not always according to the intensity of the cause. The character of the eruption, whether more pustular or fibrinous, varies obviously to a greater extent with the state of health of the individual. Herpes is a very common attendant upon catarrh. It occasionally happens that symptoms of great fever, attended with wandering pains, will occur, generally after some exposure to cold or damp; and we may be unable to say whether an attack of acute rheumatism is impending, or what the disease is. Shortly, however, we see a crop of herpetic vesicles appear, generally about the mouth in adults, or face and body too, in children. Together with this we may have mucous inflammation of the nasal and other similar membranes, or such may be quite absent. Less frequently, perhaps, but certainly sometimes, we see serous inflammation of the joints—in fact, acute rheumatism—with this eruption of herpes in full bloom, and running its course simultaneously. It seems to me, then, that the true explanation of one of these groups will be the best guide to the true explanation of the rest, and that the introduction of a poison in one alone is gratuitous and unnecessary. We have every reason to believe that the cause which seemed to produce both the herpes and the serous inflammation at the same time, and which we knew is capable of exciting each separately, was really the cause of both; and still more, that the pathological process concerned in their production was identical, the different symptoms being the result of the textures affected, and not due to any specific difference in the diseases. I submit, also, that we have every right to believe this until the different process concerned in the production of the two diseases is demonstrated; and this, I think, never has been done.

b. Thoracic Inflammations.—According to Dr. Fuller, we ought to exclude these from a list of diseases produced by cold, because the thoracic organs are well protected from the external atmosphere, and the effects of cold, as he describes them, do not include any of the well-known symptoms of these diseases; that is, it does not cause pain, local inflammation, cough, etc. But I need not stay long to refute this argument. Dr. Fuller—like Canute retiring from the waves—must give way to the universal testimony of mankind, that cold does excite thoracic inflammation, even though everybody is not always suffering from it; so he must enlarge his ideas of the effect of cold, and admit that it has powers other than he was once willing to attribute to it.

Considering the *lungs* first, we find:—

1. Inflammation of the parenchyma and serous covering, pneumonia, pleuro-pneumonia, and pleurisy, produced by cold. The existence of these, both as results of cold and as complications of rheumatism, needs no proof from me. No doubt any of these may occur in pyæmia; but here, as Dr. Bristowe has shewn, the inflammation is caused mechanically by embolism, and the only effect of the vitiated state of the blood is to influence the course of the inflammation, rendering it more uncontrollable and more prone to suppuration. But this is not the general course of so-called rheumatic pneumonia or pleurisy, any more than of the "common" kind. There cannot be pointed out a single symptom, in the affected parts themselves or among the general symptoms, which will enable one to say which is rheumatic pneumonia, and which is only common; the diagnosis of the former can only be made by the presence of inflammation of the serous membranes of the joints. This articular inflammation may seem to have been excited by the same cause, may affect a similar tissue (as in pleurisy), and may pursue the same course, yet in the one case we are told that the existence of a *materies morbi* is absolutely necessary to account for the symptoms which are admitted to be produced without it in the other.

2. Inflammation of the mucous membrane, bronchitis, and—closely allied to this, though strictly not a lung affection—common catarrh. These mucous inflammations are less common in association with rheumatism, though sometimes existing with it. But not unfrequently they seem to be a sort of alternative to rheumatism. A person is exposed to cold; he experiences the malaise which precedes the local symptoms of catarrh; the fulness of head is present, he has also wandering pains in all parts of the body, and these sometimes so severely in the joints that he expects an attack of rheumatism; but in a day or two the local nasal inflammation is established, with (it may be) slight bronchitis; the pains then cease and the general symptoms are less severe. Sometimes, on the other hand, we have the same train of symptoms; the "cold" seems to be coming on, and the coryza may have been partially established; but this process is arrested, and the symptoms bloom into a case of acute rheumatism. The morbid action thus seems uncertain where to fix itself, and, in all probability, the constitution, hereditary or acquired, is the main element in the settlement which gives

"——To airy nothing
A local habitation and a name."

Similarly, at the termination of some cases of rheumatism, we sometimes see that as the joint-affection subsides a bronchitis developes. In fact, the inflammation set up in the one region seems to act as a natural counter-irritant to the inflammation in the other. Nevertheless, the impression of cold as the exciting cause, or the predisposition of the patient to inflammatory action, may one or both be so great that serous and mucous membranes alike shall be simultaneously (and, surely, similarly) affected.

I would venture the suggestion that a distinction may be drawn between the rheumatic and the strumous constitutions—that the former, as a general rule, is more prone to primary serous and fibrous inflammations, the latter to mucous and parenchymatous inflammations. Proliferation of cells and perambulation of white blood-corpuscles—in other words, rapid and defective elaboration of tissue-elements with great pyopoietic tendency—seem characteristic of the strumous constitution, and, perhaps, are more easily set up in the mucous and parenchymatous tissues, whose products (mucous corpuscles, lymph corpuscles, or, in general, cells) are connected more or less closely with the distinctive constituent of pus. On the other hand, fibrinous effusions seem more specially the product of inflammation, whether simple or rheumatic, of fibrous or serous tissues, the characteristic constituent of which—fibre—is the form most readily assumed by the effused products. Severity of inflammation, whether in consequence of intensity of predisposition or of exciting cause, approximates the fibrous and serous inflammations temporarily to the habitual condition of mucous inflammations; and so pus is more or less abundantly formed. Thus, a strumous individual will be liable to inflammatory action from causes too slight to affect a person in equally good health, but rheumatically inclined; if both have fibrous or serous inflammation set up, the strumous man will have it more severely, and is more liable to pus-formation, and in him, *à fortiori*, catarrhs of various kinds will be more readily established. In all fibrinous effusions corpuscles exist, many of which are indistinguishable by the microscope from pus corpuscles; a greater production of these, with the slight invisible alteration necessary to make perfect pus-cells, together with a less plastic fibrin, is all that is required to render the effusion puriform. There is no hard-and-fast line between the two; it is all a question of degree. So, also, the two constitutions I have attempted to distinguish shade imperceptibly into one another, are well seen only in typical cases, and doubtless may vary in vividness, even in the same individual, at different times. But if this is the true view of the facts, and there is this connexion between rheumatic and other inflammations, there is no stronger argument against its specific origin.

In the case of the *heart* we have two serous membranes, and no mucous. Peri- and endo-carditis are both common, but, strangely enough, are regarded very differently. It is allowed that pericarditis may be either rheumatic or simple; but if endocarditis occurs, it is immediately concluded that the cause must be a circulating poison—generally the rheumatic, sometimes the gouty, or the morbid blood of Bright's disease. But, surely, if it is admitted that inflammation of the exterior of the heart can be excited by simple cold, no serious reason can be alleged why the interior cannot be simply inflamed in the same way. The intervention of a poison ought to be proved before we are called upon to believe it, and to alter our treatment on that ground. With regard to these diseases, Sir T. Watson, in the passage before quoted, admits that the products of rheumatic and simple carditis are the same; and yet, although the same exciting cause produces similar symptoms and similar results, we are required to believe that the genesis of the disease is quite different if a single other serous membrane happens to be simultaneously, though similarly, affected, and that a different line of treatment is to be pursued!

Endocarditis is, however, not altogether a true serous inflammation, though perhaps not less so than the articular affections. The tissue, at least, primarily affected is generally the sub-serous fibrous tissue, most abundant in the valves. The rarity of its occurrence without accompanying arthritis probably accounts for its being usually regarded as due to rheumatism—in other words, as something specific.

c. Peritonitis.—Here, again, a serous membrane sometimes becomes inflamed as a result of cold. When it is thus non-traumatically excited, suppuration is rare. It is less often associated with arthritis than the previous diseases, but sometimes is, and then the same remark as before applies, that no specific difference can be shown to exist between the two forms. It is often accompanied by a herpetic eruption about the mouth.

d. Meningitis, Cerebral and Spinal.—Dr. Allbutt(a) relates a case of spinal meningitis in which the symptoms resembled closely those of the ordinary form, but which subsided suddenly in forty-eight hours on the supervention of articular inflammation. In other cases cerebral symptoms seem to supplant the morbid action in the joints; and a see-saw process has sometimes been observed between them. The nature of the cerebral symptoms, which vary considerably, has been much disputed. There are cases, however, where post-mortem examination has revealed the usual products of inflammation of the meninges, even including pus. More often, perhaps, nothing special has been found, and the delirium, etc., have been attributed to heart affection, or regarded as a special neurosis. Sometimes all the typical symptoms of heat-stroke are present; there seems then to be a paralysis of the heat-regulating centre. If the cerebral symptoms occur first, there is no indication which would enable us to distinguish rheumatic from non-rheumatic cases. When they are subsequent to joint affection, if there are post-mortem appearances at all, they in nowise differ from those of simple meningitis; and, when nothing abnormal can be found, the symptoms have so much analogy with the neuroses as to warrant the belief that the morbid process is similar—at least, until we have some ocular, or very cogent, demonstration of the existence of a poison. The occurrence of simple cerebral meningitis, apart from any joint affection, but distinctly due to cold, is doubtless rare, but might appear more frequent if the sufficiency of this cause were recognised. Spinal meningitis is more commonly regarded as a simple inflammation.

e. Certain Neuralgiæ and Paralyses.—I cannot mention all of these affections which have been attributed to cold; some unquestionably are caused thereby. This proves that cold can exert a distinct and powerful influence upon nerve-fibres. Whatever this influence is—whether the facial paralysis often produced is due to depression of the function of the implicated nerves, whether the neuralgic pain of other cases is due to the same depression of sensory nerves, or whether in reality the nerves are unduly excited and excitable—is of no importance in this connexion. Inflammation of the neurilemma may or may not be one of the links in the chain of causation; some say so, and if it be, it is an inflammation established by cold. There are some cases of rheumatism, especially some chronic cases of one painful joint, or one painful region, in which neuralgia seems to me to be the real morbid action, unassociated with inflammation; they are non-febrile cases, and require different treatment. There are thus, I believe, two distinct varieties of lumbago—neuralgic and inflammatory—not at first sight very different, but amenable to different remedies. The relation between neuralgia and rheumatism is a difficult question to discuss, but the connexion (of whatever extent it is) which seems to exist between them would rather suggest the neurotic origin of rheumatism than the septic or blood-poisoned origin of the neuralgiæ excited by cold. With regard to paralysis, the extent to which real loss of voluntary power over muscles, both in so-called muscular rheumatism and in the acute joint affection, sometimes exists, deserves recollection in connexion with those paralyses which cold undoubtedly can produce in face, shoulder, and elsewhere.

f. Selerotitis and Iritis.—The existence of the former has been accounted for by the fibrous structure of the sclerotic.

(a) *Medical Times and Gazette*, April 4, 1868.

This affection, or a tendency to it, seems to be present sometimes without any subjective symptoms. I have noticed in some cases a zone of injected vessels, of small but inconstant breadth, surrounding the cornea, while no complaint has been made by the patient. This has occurred in articular rheumatism, but also in two cases where, but for that, I should never have thought of rheumatism; one was a case of pleurisy, a second attack rapidly succeeding the first, in which a slight stiffness in one shoulder-joint at one visit was the only rheumatic symptom complained of; the disease was distinctly traceable to cold. Sometimes the sclerotitis is more intense and painful, occurring with, and also without, articular pain.

There is a form of iritis which has generally been distinguished as "rheumatic." A similar disease occurs as the result of cold without articular inflammation. Dr. Anstie(b) is of opinion that the term "rheumatic iritis" will soon be consigned to oblivion, since we shall be able to trace its connexion with affection of the nerves of the iris. I hope to assist in the process.

These, of course, are not all the diseases which cold can excite, nor all the complications of acute rheumatism; but I think they are sufficient to show that no difference exists between rheumatic and non-rheumatic diseases excited by cold. If a difference is recognised, great uncertainty must enshroud every cold-excited inflammation in which arthritis is not also present; and I cannot but think that, apart from preconceived ideas, it must seem obvious that the genesis of a disease cannot be so very different, merely because it is in one case associated with articular inflammation and not in the other, while exciting cause, symptoms, and result remain the same. If we are asked to believe the reality of this great distinction on the ground of the presence of a subtle *materies morbi*, this is no real explanation, even if one were required. But when this *materies morbi* is no longer called subtle, but a definite, abundant, continually reproduced and continually excreted acid, lactic or acetic, I hardly know which to wonder at most—the boldness which can deliberately contend for the existence of this undemonstrated and undemonstrable poison, or the credulity which can unhesitatingly adopt this hypothesis as the principle and guide to treatment.

If the complications of acute rheumatism are thus in no-wise due to the circulation of a poison, but to the impression and remote influence of cold on the nervous system, we are brought far on our way to the adoption of a similar view with regard to rheumatism itself.

(*To be continued.*)

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

VICTORIA-PARK HOSPITAL.

CASES OF PARACENTESIS THORACIS.

(Under the care of Dr. PEACOCK.)

DURING the last few years four cases in which paracentesis was practised have occurred in Dr. Peacock's wards at this Hospital. Of these cases we are able to give reports, and we believe they will be found to possess considerable interest to our readers.

Case 1.—*Purulent Effusion in the Left Pleural Cavity in a Child—Paracentesis twice practised, and the tube the second time left in—Complete Cure.*

The child, a female, aged 9, was admitted into the Victoria-park Hospital on April 27, 1866. She was then reported to have been ill for five weeks, but the history of her illness was very incomplete. She complained of pain in the left side, and had great difficulty of breathing, with feverishness and prostration of strength, but without lividity. The left side was found to be generally much enlarged, and there was a very marked bulging in the left upper mammary region. The movement of the side was abolished, and there was entire dulness on percussion, and the respiratory sounds were only feebly audible at the upper part of the side, and were entirely absent below. The heart was greatly displaced, being situated to the right of the lower part of the sternum. The right side of the chest was resonant on percussion, and respiratory sounds were loudly heard there, and the movement was very much exaggerated. She lay on the left side. The pulse was feeble and rapid—132 in the minute; the breathing also rapid—64. The tongue white, with the tip red, and the papillæ projecting. There was great reason to fear, from the general symptoms, that the child was tuberculous, but it was evident that there was extensive effusion in the left side of the chest, and that immediate relief must be obtained. It was therefore determined at once to puncture the chest. This was done on the 28th, and eleven ounces and a half of pus were evacuated, when the air began to enter, and the tube was removed and the aperture closed. The evacuation of the fluid was attended with very decided relief. The left side of the chest diminished in size, the irregular enlargement in the mammary region was less marked, and the breathing was much freer.

The following notes were taken on April 30:—The breathing is very much relieved, though still short and hurried, the respirations numbering 60 in the minute; pulse 120, and sharp; tongue red, with the papillæ projecting; dulness on percussion still very marked over the whole of the left side, and the movement very imperfect. There is some return of vesicular respiration over a large portion of the upper part of the side, and bronchial respiration is heard to the left of the spine in the dorsal region. The cardiac sounds are most distinctly heard to the left of the lower part of the sternum. The resonance on percussion is clear on the right side of the chest, and the respiration is puerile, and attended with a slight sibilant wheeze. She prefers to lie on the left side, but can lie on the back, and for a short time on the right side. She takes her food well. The bowels are regular, and the urine is passed naturally.

May 2.—She is capable of sleeping tranquilly when lying on the right side, and her appearance is very much improved. The pulse is still quick. The chest is decidedly enlarged on the left side, especially in front. The side is everywhere dull on percussion, and the movement imperfect. The respiration is almost entirely bronchial. The heart is becoming again displaced to the right side. She has a cough, but no expectoration.

On the 4th, the side being much distended, the chest was again punctured, and a large quantity of pus evacuated, the canula being left in, and the opening closed by a plug, which could be removed, so as to allow the secretion to flow out at intervals.

On the 7th her condition was very much improved, and her breathing easier. She slept comfortably lying on her back, somewhat inclined to the right side. The left side is much smaller than before, and continues quite dull on percussion; but there is a return of the respiratory sounds at the upper part of the chest, both before and behind. The discharge from the side is lessening, amounting to about one ounce twice daily, and it consists of healthy pus. Her tongue is clean, but still a little furred towards the root, and the papillæ are somewhat red and projecting. She takes her food well, but her bowels are somewhat torpid.

9th.—She has continued to improve. The side continues entirely dull on percussion, and is generally full; but there is a decided increase of the space over which the respiratory sounds can be heard, and her breathing is obviously much fuller and freer. The heart still continues somewhat displaced to the right side. She prefers to lie on the back, but can lie on the right side. The respiratory sounds on the right side are puerile, and are attended by some sibilant rhonchus. Her pulse is quick, but probably from excitement. The tongue has a white fur on the dorsum. She takes her food well, and the bowels are regular. For the last few days the discharge has been smaller, but to-day, on changing the position of the tube, fully four ounces of pus escaped.

16th.—The left side of the chest is contracting, the falling in of the upper mammary and infra-clavicular regions being very marked, but the movement has not to any considerable extent returned. The dulness on percussion is, perhaps, somewhat less complete. There is very obvious return of the natural respiratory sounds in the left spinal and dorsal regions, and to a less degree in the infra-clavicular and axillary regions. The respiratory movements on the right side are less exaggerated, and the sound, though still puerile, is less so than before, and is not attended by any sibilus. The heart's sounds are still distinctly audible to the right of the lower end of the sternum. The pulse is quick, probably from excitement. The respirations 28 in the minute. Her cough, which had ceased, has returned, but she does not expectorate with it. Her appetite continues good. The canula has been removed since the 14th, and the opening has been kept plugged with a piece of lint.

(b) Reynolds' "System of Medicine," Art. "Neuralgia," vol. ii., p. 738.

The discharge amounts to about two ounces daily, and is still decidedly purulent.

28th.—Her general condition has considerably improved. The left side of the chest has continued to contract, but the dulness on percussion is less marked, especially at the posterior part. There is a decided return of the respiratory sounds, which are everywhere feebly audible except in the lower lateral region. The heart's sounds are still heard to the right of the lower end of the sternum, but are the most distinctly heard in the natural situation. The respiratory movements on the right side are full and free, and the sounds natural, though somewhat puerile. There is still a little discharge from the side.

On June 17 pleural crepitation was heard over a large portion of the left side, and she was otherwise improving. The discharge from the side was very trifling.

On the 18th the opening had entirely healed.

On July 4 the following notes were taken:—There is very marked contraction of the left side of the chest, more particularly beneath the clavicle. The respiratory sounds are everywhere heard, but only very feebly in the lower parts of the chest, and there is still considerable pleural crepitation to be heard. In every respect she has greatly improved. The tongue is a little mottled, but the pulse is quiet and the respiration natural. She takes her food well, and the bowels act regularly.

She was discharged cured on the 12th.

In this case the result was more favourable than could at the time of the little patient's admission into the Hospital have been anticipated. There was great reason to fear that there might be tuberculous disease of the lungs; but after the pus was evacuated the child greatly improved, and was, indeed, discharged from the Hospital nearly well, with, however, as might be expected, considerable contraction of the left side of the chest.

(*To be continued.*)

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Medical Times and Gazette.

SATURDAY, AUGUST 26, 1871.

NOTES ON PUBLIC HEALTH.

We must acknowledge that, just at the end of the late session of Parliament, her Majesty's Government did manage to pass three Bills which may come under the title of sanitary measures. The Vaccination Amendment Act Bill makes the appointment of Vaccination Officers by guardians of unions or parishes obligatory, instead of only permissive; and the House of Lords fortunately struck out Clause 10 of the Bill, and so saved us from the absurdity, to use a very mild term, of a Bill that, while affecting to make vaccination compulsory, allowed anyone to purchase exemption for twenty shillings. The Metropolis Water Bill is hardly likely, as we pointed out last week, to be of much use; but we may hope for some real solid benefit from the Bill which has changed the Poor-law Board into the Local Government Board, and has transferred the sanitary powers of the Privy Council and the Home Office to the new department. Mr. Stansfeld is placed at the head of the new Board, and the nation may be congratulated on the transference of any powers to him from the present Secretary for the Home Department.

There is not much to report this week as to the progress of Cholera. It continues to prevail, and rather to increase in Königsberg. On the 15th, 70 persons were attacked by the malady, and 34 died; on the 16th, 80 were seized, and 27 died; on the 18th and 19th, it is reported, 111 new cases occurred, with 56 deaths; and on the 20th, there were 87 fresh cases, and 32 deaths. It was reported at the end of last week that cases of cholera had occurred in the neighbourhood of Stettin, but this seems at least doubtful. According to a telegram from Berlin, dated on the 22nd, there have been a few cases at Dantzic and Elbing. It is stated that in the Russian province of Sumalki cholera is on the decrease. The whole number of cases that had occurred was 443, and of these 83 had died, while 190 had recovered. In Persia the disease is raging terribly; a telegram from Tabreez states that in that city alone the deaths from it in the first week in August averaged 200 a day.

Dr. Buchanan, who has been charged with the supervision of the precautions against the importation of cholera into the Thames, has been in communication with the Board of Customs, the Trinity House, and the Thames Conservancy, as well as with the authorities at Gravesend, and the health authorities of all the riverside districts below London-bridge, in order to obtain their co-operation in organising and carrying out a complete and uniform system of supervision. As ships are boarded by the Custom-house officers at Gravesend, the necessary work for detecting the presence of cholera among the crews will be merely carried out at that place; but of course the expenses of supervision, of disinfection, and of removing and providing for patients, will not all fall on Gravesend, but will be equitably divided among the various river districts.

On the 18th the Sanitary Committee of the City Commission of Sewers met, and expressed their desire to co-operate in every way with the Privy Council in endeavouring to secure a more stringent examination of ships entering the port of London, and thus to lessen the chances of the introduction of cholera.

Medical inspectors are appointed on the Tyne to examine ships from Königsberg, Cronstadt, and other places on the Baltic; and arrangements are being made to establish a floating Hospital. The Chatham Board of Health have applied to the War Department for the use of a small disused fort near Fort Pitt, to be converted into a cholera Hospital if needed. Chatham itself is in good sanitary condition, and, since the water supplied by the water company has superseded that taken from wells near inhabited houses, the annual death-rate of the town has been reduced 2 per cent. Mr. Netten Radcliffe is now visiting the ports from Boston to Southampton.

The fatal cases of diarrhœa in London, which had been 110, 201, 225, and 299 in the four previous, rose to 425 last week, of which 388 were of infants aged under 2 years, and 18 of persons aged 60 years and upwards, leaving but 19 as occurring among children and adults aged 2 years and under 60. These 425 deaths from diarrhœa in London exceeded by 222 the corrected average number in the corresponding week of ten years 1861-70, and were equal to an annual death-rate of 7 per 1000 persons living; in the West group of districts this death-rate from diarrhœa was 8 per 1000, in the Northern group 6, in the Central and Eastern groups 7, and in the Southern group 6. The deaths referred to cholera and choleraic diarrhœa in London, which in the three previous weeks had been 17, 18, and 15, rose last week to 40, of which 33 were of infants not exceeding 1 year.

SEA-BATHING.

About this time of year our brethren are wont to be consulted on the relative merits of sundry health-resorts; what particular climate or what particular exposure will suit dear So-and-so; who shall try the east coast, or south coast, or the Alps, or what not. Often, also, those who go to the seaside will desire advice as to the propriety of bathing in the open sea. Not all will do so, however, and of those who neglect the precaution a large proportion are almost certain to sin against the rules which ought to be observed in taking advantage of this health-giving practice.

The first thing to be insisted on is, that sea-bathing is not suitable for all; the next, that at certain periods of the day, and under certain circumstances, it is likely to do more harm than good. Neither is it advisable for a man, much less for a woman, to rush hot-foot from London and London modes of life to the sea, and forthwith plunge into its refreshing waters. It is quite true that a strong man may laugh at precautions, and may behave much as he likes; but, then, he does not *need* sea-bathing, nor will it do him any particular good. It is perhaps with ladies, nervous and delicate, that the most elaborate precautions require to be taken, as it is assuredly to these sea-bathing does most good. It will be remarked that we speak entirely of bathing, and make no reference to the sea-air, which to many is an absolute tonic. That may be enjoyed without too much rule or regulation; not so with the bathing.

Let us suppose, then, that we have to deal with a lady patient, of no great original strength, and whose powers have been severely strained by the overwork of a London season. For such there is no better remedy than a week or two of sea-bathing at some retired spot. First, however, there will be the journey from town, more or less fatiguing, according to the distance of the place selected. This ought to be chosen with reference to the patient's strength of body and constitution. Should the strength be but small and the constitution weak, a breezy place on the south coast should be selected, whilst those of greater stamina might try Ilfracombe, the Yorkshire coast, or even further north on the same side of the island. At all events, the journey will be quite enough for one day. A short walk by the seaside, or a short row on the water, with the fresh smell of the sea-air and sea-water, will suffice for an introduction to a new mode of life. With the change of abode a total change of diet and mode of life is advisable. The old motto "Early to bed and early to rise" should be adopted—but gradually, and by no sudden jerk; the feeling of fatigue will readily induce the habit of early retiring to rest, and the systematic practice of rising earlier and earlier every morning will by degrees induce the other.

The second morning really begins the seaside life; but it is not yet the time for plunging into cold salt-water. A pailful or two should be used as an ordinary bath in the bedroom, the precaution being taken of raising the whole to a temperature of about 60° Fahr. by warming a portion of the water considerably above that degree. Next should come the walk, drive, or row in the open air, an early dinner, followed by a rest on the couch, a little more exercise in the evening, an early supper (not later than eight or nine), and to bed at or before ten. The next morning the water might be tried cold, and so, perhaps, for the next; after which, if the weather is not too oppressive, a bath in the open sea might be tried about mid-day, the period for bathing being made earlier and earlier each day, but never within two hours of breakfast. In about a week the bath may be taken before breakfast, the latter being slightly postponed for the purpose; but bathing at this time should not be attempted earlier, and sometimes not so early, for it is in such matters that judgment is best shown. Certainly no delicate individual ought to attempt an early morning bath without first going through a course such as we have indicated.

One grand rule is, never to bathe soon after a meal, or with a stomach at all full; neither should the bath be attempted by a weakly individual on one altogether empty. Perhaps the condition most suitable in every respect is attained by a cup of warm new milk partaken of after dressing, and just before starting for the sea itself. A strong, hardy man may outrage both rules; not so one who is weakly and delicate.

The great test of the efficacy of sea-bathing is the feelings of the individual on coming out of the water. The first day the patient should not remain above a minute or two in the water; not much more than is required for one or two complete immersions, and at no time, except he be a swimmer, more than five or ten minutes. After a good immersion over head and ears, and a good dry with a rough towel, the patient, having quickly dressed, should take a little stroll along the beach. If now he feels warm, comfortable, and exhilarated, the bath is as certain to do him good as it is certain to do him harm should he feel cold and depressed, if his hands and finger-nails remain blue and pinched, and the cutis anserina be generally developed. These are sure signs either that the bath disagrees, or that some indiscretion of diet or what not has been committed. There is a common dread of going into the water if the body be greatly heated; this is quite unfounded if the individual be strong, and the immersion be sudden and complete; but a little caution is required on the part of the weakly. In all cases sudden and complete immersion is desirable.

Many other points might be alluded to and hints given, but these meanwhile must suffice. We only add one more. It will add greatly to the patient's comfort and enjoyment if, about the second day, a slight cholagogue be given. A little podophyllin or calomel will not be amiss; but we know none better than our old friend a blue pill in the evening and a black draught in the morning, due consideration being had for the strength of the patient.

DR. SANDERSON ON THE ORIGIN AND DISTRIBUTION OF MICROZYMES (BACTERIA) IN WATER, AND THE CIRCUMSTANCES WHICH DETERMINE THEIR EXISTENCE IN THE TISSUES AND LIQUIDS OF THE LIVING BODY.

The Thirteenth Report of the Medical Officer of the Privy Council contains a most interesting and instructive appendix bearing the above title, in which Dr. Sanderson continues his researches on the intimate pathology of contagion. In his previous report the author defined microzymes as living particles which in their earliest stage are spheroids, but subsequently elongate into rods, and their existence was said to be associated with the commencement of putrefactive decomposition of nitrogenous compounds.

The purpose which Dr. Sanderson had immediately in view in instituting his experiments (in which Dr. Ferrier was associated with him) was to examine into the origin, growth, and development of microzymes, to investigate the conditions which are fatal or favourable to their existence, so as to be enabled to approach one degree nearer to an understanding of their influence on the processes which go on in the living body. Though the question of spontaneous generation is only incidentally touched upon, a heavy blow is dealt to it, for it is shown that, as regards the animal liquids and tissues and the liquids used as tests for the presence of microzyme germs, no spontaneous evolution of any organic form ever takes place; so that, it is significantly added, it is quite unnecessary for the purpose in hand either to deny or to assert its possibility under other and different conditions. He shows, however, that liquids which contain no particle distinguishable under the highest powers of the microscope possess the property of evolving microzymes without contact with external media, and must therefore contain the germinal substance from which these organisms spring. Nevertheless, he believes that here we have to do with particles so minute that they do not

interfere with the homogeneity of the liquid. The peculiar manner in which microzymes (bacteria) grow on the surface of liquids in rods which adhere together by their sides, after the manner of columnar epithelium, appears to be new. When growing on moist surfaces, these rods, with their intervening jelly, sometimes form the masses of microzymes to which Cohn applied the term "Zoogloea."

As regards the chemical composition of microzymes and their relation to the media in which they grow, it is assumed from their deportment with reagents that the particles are albuminous, and it is known that their growth is attended with absorption of oxygen and discharge of carbonic acid; that they are remarkably independent of the chemical constitution of the medium, provided that they are supplied with oxygen; and that they take nitrogen from almost any source which contains it, and use it for the building up of their own protoplasm. This last power indicates their place in nature as the pioneers, if not the producers, of putrefaction. The evidence bearing upon this function elucidated by Dr. Sanderson's experiments is, that so long as the germinal matter of microzymes is excluded, animal fluids or tissues withstand decomposition for very long periods, whilst the slightest contact with media containing this material at once determines septic changes. Consequently, it can be asserted positively that, under certain circumstances, the presence of microzymes excites putrefaction; but the facts do not, in his opinion, afford grounds for stating that they are the cause of putrefaction, or that if it were not for them the process would be postponed indefinitely. We may remark that the assertion of some chemists, that organic matter may, under the influence of heat and moisture alone, undergo decompositions which present all the chemical characters of putrefaction, even though no organisms be present, receives strong confirmation from some recent experiments of Hoppe-Seyler (*Med.-Chem. Unters.*, p. 565, 1871), which tend to prove that temperature has more to do with putrefaction and fermentation than has the presence of organisms, and that it is requisite to distinguish between the ferment and the organism producing this.

Dr. Sanderson divides his memoir into three sections. The first gives an experimental determination of the conditions which govern the development of microzymes in certain organic liquids to be used as tests (animal fluids and Pasteur's solution); the second is on the distribution of the germinal matter of microzymes in ordinary water; whilst the third treats of the circumstances which determine the existence of microzymes in organic liquids and tissues.

Under the first head the following are the chief results obtained:—1. No evolution of organisms takes place in superheated liquids, provided that the air with which they are in contact has also been superheated, whether they are kept at an ordinary temperature or at that of the body; whilst organisms appeared in the same liquids which had not been superheated. 2. Thoroughly boiled liquids, preserved in tubes first prepared and sealed, remain perfectly free from organic forms. 3. Superheated liquids, when freely exposed to the air, become eventually covered with tufts of penicillium. 4. The germinal matter from which microzymes spring *does not exist in ordinary air*, whilst the activity of the development of penicillium is in proportion to the degree of exposure to such air. Next, as regards the relation of water to microzymes, it was found—(*a*) That water is the primary source from which the germinal particles of bacteria are derived, whenever they seem to originate spontaneously in organic solutions. (*b*) Distilled water may be obtained free from germinal particles, whether of microzymes or fungi, and the zymotic property of ordinary distilled water is acquired either by mixture with other waters or by contact with the surface of vessels. On this is founded a method of ascertaining the amount of zymotic impurity of two waters, by comparison of the degree of opalescence produced by each in Pasteur's test-solution (composed of a solution of sugar, tartrate of ammonium, and yeast ash) in the same time and at the same temperature. (*c*) The germinal particles of microzymes are rendered inactive by thorough drying, without even the application of heat; and the contamination of water by apparently dry surfaces happens only in those cases in which desiccation is incomplete. (*d*) Disinfectants—such as ozone, permanganate of potassium, carbolic acid, quinine, peroxide of hydrogen, chlorine, and the application of heat—may be so applied as to prevent the development of microzymes without stopping the germination of penicillium. (*e*) Filtration exercises no perceptible influence on the zymotic property of water.

The third section of the Report is perhaps the most interesting of all to the Medical Practitioner. In this section it is shown—(*a*) That normal tissues and liquids—muscle, cellular tissue, blood, urine, saliva, and probably milk—do not possess the zymotic property, and that they contain no microzymes potentially or actually. (*β*) The liquid products of inflammation (pus) are occasionally zymotic, but not always so. Further experiments seem to be required in this direction, and we may confidently look for them from Dr. Sanderson.

The whole tendency of the Report is to prove that fungi are not developed from microzymes, and that their apparent association is one of mere juxtaposition. The grounds of this conclusion are thus concisely stated:—1. The prompt appearance of torula cells in Pasteur's solution whenever it is exposed to the air, and the rapid development and luxuriant fructification of the higher form (penicillium), show that, so far as the chemical composition of the liquid is concerned, there exists in it all the conditions favourable to the process. 2. When precautions are taken to prevent contamination by impure surfaces or liquids, the development which ends in penicillium goes on from first to last without the appearance of microzymes. 3. Whenever it is possible to impregnate the test-liquid with microzymes without at the same time introducing torula cells or germs, the development of the former begins and continues by itself without any transformation into the latter. Thus fungi are not developed, *notwithstanding the presence of microzymes*, in the same liquid in which, *microzymes being absent*, but air having access, they appear with the greatest readiness. Such are the very important conclusions arrived at by this skilful observer. Rightly to appreciate them, the account of the experiments themselves must be read. We commend the whole of Mr. Simon's Report to our readers, and have only to add that it may be purchased for 4½d.

THE WEEK.

TOPICS OF THE DAY.

We notice that a proposal to range successful candidates for the Fellowship of the Royal College of Surgeons in classes, according to the proficiency displayed in their examinations, is to be submitted to the Council of the College by Mr. Charles Hawkins. We trust that so mischievous and impolitic a proposition will not for one moment be entertained by the Council of the College. Surely there are enough ranks and grades in our Profession already, and enough jealousy and heartburning is caused by them without introducing new ones. The effect of such a proposal, were it made law by the Council, would be to change the Fellowship from a popular and coveted distinction to a most unpopular and unattractive one. What rising young Surgeon would submit to an examination which, on the whim of an examiner or the accident of a particular question, might brand him, as far as the Profession and the College of Surgeons are concerned, as a second-class man throughout life? With regard to the public, indeed, they would know or care but little about the matter. They bestow their patronage on those who can render them the aid they require, and do not stop to inquire into the mystery of Medical diplomas. But this does not diminish the impolicy of this proposal. To draw

such a distinction between Fellows of the same College will be to introduce a source of jealousy and discontent, which will not only diminish the esteem in which the College is held and the good feeling which prevails amongst its Fellows, but will certainly deter men from seeking the Fellowship. In this country it is not a new, but an increasingly true complaint, that we are becoming more and more under the domination of the Chinese system. The examination test is enforced everywhere, and it is final; but with it do we produce great men or great discoveries? Is it not rather that we are lapsing more and more into a uniform mediocrity? It is certain that our greatest men in Physic and Surgery would assuredly have been rejected at many of our modern examining boards. John Hunter would not learn Latin and Greek to please his brother William, and Liston could certainly not have passed an examination in Materia Medica at the University of London.

We are informed by the editors of the "Manchester Medical and Surgical Reports," that they are endeavouring to collect and collate statistics of the major operations in the chief public Hospitals of England during 1871. Next year they propose to extend their scheme, and to issue, in a separate form, returns of all the important operations performed in 1871 throughout the United Kingdom, arranged in reference to meteorological conditions and locality. They propose to include in these returns Operative Midwifery and Ophthalmic Surgery. To obtain the desired information, they intend to issue blank forms to every public Medical charity in the United Kingdom. We need not say that such a work, if well done, cannot fail to be valuable; and we hope that Messrs. Bradley and Walter Whitehead will meet from the Surgical staffs of the Medical charities all the aid and information they ask.

Surgeon-Major Atchison's letters to the *Times* on small-pox encampments (which, republished in a separate form with his letters on cholera and the Contagious Diseases Acts, we are glad to see have now reached a third edition) may, perhaps, yet bear fruit in a cholera epidemic. Segregation by camping the sick out in some airy situation, and on the subsidence of the disease burning the encampment, is the formula he recommends; which, put in practice during a severe epidemic of cholera at Mecan Meer, in 1861, speedily arrested the disease. Should the experiment be tried in the neighbourhood of our towns, the means have been suggested by Mr. Netten Radcliffe, who has designed a tent for four beds which can be furnished at a very moderate cost. The tent is sixteen feet long by fourteen wide, and thirteen feet high. It weighs a hundredweight, and can be erected in a quarter of an hour. The tent is to be obtained at Pigott's, in Bishopsgate-street.

The Medical attendants and Sisters of Mercy of the Small-pox Hospital at Hampstead applied last week, through Mr. Poland, the barrister, to Sir Thomas Henry, for summonses for libel against the proprietor and publisher of the *Echo* newspaper. The libel was contained in the description of the case of a child which lost its eyesight in an attack of small-pox through which it was nursed at the Hospital. The child had bedsores and ulceration of the cornea, and the article undoubtedly attributed neglect to the Medical and nursing authorities of the Hospital. Sir Thomas Henry refused the summons—principally, as it seems, from the report of the case in the *Times*—because the article in the *Echo* was confirmed by the child having become blind; as though blindness was not too common a result of small-pox! Sir Thomas Henry is reported to have said, "There was no pretence, perhaps, for attributing neglect, but still it was a matter of opinion." In our opinion, however, the Medical and nursing staff have been unjustly used in the matter. The article undoubtedly attributed neglect, and the staff, we think, had a right to claim a public investigation into the whole matter.

A telegram from New Brunswick communicates the melancholy intelligence of the death of Renforth, the stroke-oar of the Newcastle crew in the Anglo-Canadian boat-race. It appears that the boats started at 7.25 in the morning in smooth water, the Brunswick crew taking the lead. The Tyne boat drew a-head for a short time, but at three-quarters of a mile the lead of the Brunswick boat was three lengths, when Renforth was seized with a fit of apoplexy, which resulted in his death. The Tyne crew gave up.

THE LOCAL GOVERNMENT BOARD.

On the 19th instant the Queen was pleased to appoint the Right Hon. James Stansfeld to the office of President of the Local Government Board. On that date the Poor-law Board ceased to exist, and the new department established by the statute 34 and 35 Vic., cap. 70, was constituted. All communications relating to the administration of poor-laws, Local Government Acts, and sanitary matters should now, we are informed, be addressed to "The Local Government Board, Gwydyr-house, Whitehall."

TESTIMONIAL TO E. COCK, ESQ.

Upon the retirement of this gentleman from the appointment of Senior Surgeon to Guy's Hospital, with which institution he had been connected for nearly half a century, a number of the past and present students determined upon presenting him with some mark of their appreciation of his long and valuable services, and the deep interest he has always taken in their welfare. In order to carry this out, a subscription was entered into, and on the 28th ult., in the presence of some of the staff, and a goodly gathering of old Guy's men and the present students, Mr. Cock was presented with a very handsome and massive silver epergne, made by Messrs. Hunt and Roskill. Dr. A. S. Taylor kindly undertook the presentation, and, in doing so, availed himself of the opportunity to speak of their long connexion with Guy's, and being the only two left of what might be called the old school. He also spoke of the universal estimation in which Mr. Cock was held, not only in this country, but also on the Continent. "Having," he said, "many, very many, opportunities of meeting with Medical men all over the country, I can say, without the slightest hesitation, that I never yet heard one single unkind word said of Mr. Cock; neither have I, after all these years of most intimate acquaintance with Mr. Cock, ever heard him say an unkind word of anyone." Mr. Cock, in a somewhat characteristic but very appropriate speech, thanked them all for what, he said, he should look upon with the greatest pleasure and pride.

A GOOD EXAMPLE.

The old adage, "If you want your work done well do it yourself," is being acted upon by the Health Committee of Middlesborough-on-Tees. They are going from house to house in the town, to ascertain for themselves whether any nuisances exist, and determining the best mode of getting rid of them. This is an example worthy of being followed—it certainly appears the best way of putting a town into a thoroughly sanitary condition.

INCREASED WATER-SUPPLY IN LONDON.

Mr. Bruce's Water-supply Act will come into operation at the expiration of eight months from the passing of that measure. We are glad to record that the Grand Junction Water Company have, in a letter to Dr. Lankester, suggested as an auxiliary to the present water-supply that stand-pipes should be put up, from one to two hours during the day, in all courts, alleys, and places where imperfect water-storage was provided. The Company have handsomely offered to bear the expense, and to provide extra supplies of water for the purpose of flushing when deemed necessary. The suggestion should at once be acted upon, and it would be well if the other water companies in the metropolis would act as justly and as liberally to their customers as does the Grand Junction Company.

INFRINGEMENT OF SANITARY LAWS.

In most large towns, and London in particular, infringement of various sanitary laws is constantly being practised. If proper vigilance were displayed by the authorities, it is difficult to suppose that the accumulation of filth, and the abominable stinks which now abound, would not cease to exist. We commend the conduct of Dr. Syson, Medical Officer of Health of the town of Salford, to his brethren in the various towns of the kingdom. Last Thursday week two men were summoned before the police magistrate for conveying offensive matter, which gave off a very great stench, along Irwell-street during prohibited hours. It was urged that, seeing the precautions that were being taken, both locally and nationally, on account of the apprehended visitation of cholera, the Bench would mark their sense of the importance of carrying out sanitary regulations by imposing a heavy penalty. Walker was fined 40s. and costs, and Carter was dismissed, as he simply acted under his master's order.

FROM ABROAD.—TREATMENT OF PNEUMONIA—M. BESNIER ON THE MEDICAL CONSTITUTION OF PARIS.

M. Papillaud terminates an interesting paper published in some recent numbers of the *Gazette Médicale* on the "Treatment of Pneumonia" with the following conclusions:—1. Bleeding is hurtful in the treatment of malignant or adynamic pneumonia. 2. It is also injurious, whatever may be the form of the pneumonia, in feeble or debilitated subjects. In robust subjects it may be serviceable as an expedient for the relief of the embarrassed respiration, but opium may render the same service without producing the inconveniences consequent on the loss of blood. 3. In the treatment of pneumonia, tartar emetic is a remedy of the first rank, by reason of its antipyretic, antiphlogistic, and decongestive action; but there is no need to raise the dose beyond from 10 to 20 centigrammes, nor to continue its employment for a longer period than from two to four days. 4. Alcoholic liquids, in doses varying from 30 to 100 grammes, according to the subjects, are medicinal agents which, whether by aiding organic combustion or from other as yet little known modes of action, powerfully contribute to the resolution of pneumonia. 5. A formula combining these three medicinal agents—opium, antimony, and alcohol—is that which will best meet all the ordinary indications in the treatment of pleuro-pneumonia.

We are glad to find M. Besnier has recommenced the interesting Reports on the Medical Constitution of Paris as evidenced by its Prevalent Diseases, which he has for a long time past (until interrupted by the events of the last year) addressed quarterly to the Paris Hospital Society. The members of this Society, comprising most of the Practitioners holding public appointments, supply him with the material whence his deductions are made. The present report only relates to the months of June and July, 1871, and is, in fact (owing to the paucity of facts as yet readily obtainable), merely a preliminary glance at the Medical "situation" of the capital.

1. The fact of most interest recorded is the entire disappearance of the epidemic of small-pox, which has prevailed since November, 1869. M. Besnier observes that he confines himself to a statement of the fact without offering any absolute interpretation of it, believing, however, for his own part, that this epidemic, like others, has become extinguished under conditions which are absolutely unknown, and quite unconnected with our means of action.

2. During these two months the atmospheric vicissitudes have been remarkably variable, the early great heats of July having been suddenly followed by a great fall in the temperature, accompanied by abundant rains. Consequent upon this, the diseases usual in spring-time supervened upon estival affections, especially in the form of rheumatism, pneumonia, and pleurisy, accompanied by some connected affections, and especially anasarca.

The most remarkable affection observed in the Versailles army, as regards its frequency, was *albuminuria*. The causes of such predominance are not readily seized, for the subjects of the disease were of vigorous constitutions, and but little exposed to the hardships usual among armies in campaign. The soldiers, the objects of constant solicitude, were well fed and very well clad. They had to undergo none of the long marches or other excessive fatigues of ordinary warfare. Long before this epoch, indeed, the frequency of anasarca and albuminuria was positive, and dropsy was one of the prevalent diseases of the siege, due in great measure to the combined influence of faulty hygiene, alcoholism, and misery. There can be no doubt that atmospheric conditions have exercised their influence in producing this remarkable recrudescence, but M. Besnier also attaches great importance to the abuse of alcoholic drinks. Attached to the Maison Municipale de Santé, he has had the opportunity of observing among the civil population, also, alcoholism in all its forms on a very large scale. Albuminous anasarca and alcoholism are two elements so connected that it is very often difficult to separate them, the accidental causes to which the patients themselves refer the dropsy only acting in proportion to the predisposition inherent in the subject. In anasarca from cold, properly so called, albuminuria only appears at a late period, and is slight and fugacious, or even entirely absent.

3. Since the entry of the Versailles army into Paris, a considerable number of cases of typhoid fever have been met with in the military Hospitals, but this has generally been of a mild character. At a somewhat later period the same disease has prevailed in the civil Hospitals, and even seems to be on the increase. M. Bergeron reports the case of a child who left the Hospital early in July, after a residence in it of more than two months, and who presented an unique example of a double relapse of typhoid fever, accompanied by all its classical symptoms, the eruption included.

4. Thus far no account has been received of affections due to the direct action of the sun, although, amidst the constant movements of the troops during the great heats of July, and the extensive reparations of the ruins caused by the bombardments and fires, numerous cases of insolation must be supposed to have occurred. In the children's Hospitals tubercular meningitis was met with in unusual frequency.

5. As to intestinal affections, these have been only met with in the form of simple or biliary or choleriform diarrhœa, usual at the time of the year.

PARLIAMENTARY.—THE VACCINATION AMENDMENT BILL—METROPOLITAN WATER-SUPPLY—DR. GORDON AND SURGEON-MAJOR WYATT—THE LATE WAR MEDICAL REPORTS.

On Thursday, August 17, in the House of Lords,

The Vaccination (1867) Amendment Bill was read a second time.

Lord Shaftesbury, after adverting to the great Parliamentary influence of the metropolitan water companies, and the inquiry by a Royal Commission, declared that the present supply was inadequate, and that there was scarcely a pint of good pipe-water to be had in London, while the water in the wells was still more deleterious. There was hardly a great town in the kingdom that was not better provided with water than London, and he trusted that the Government would deal with the question next year.

Lord Halifax said that the Metropolis Water Bill, although not all that could be wished, would insure a constant supply, and that further legislation would be desirable next session to insure a more abundant supply of pure water for the metropolis.

In the House of Commons,

In answer to Mr. Eykyn,

Lord Enfield said: As the services of Dr. Gordon in Paris last winter were performed with the knowledge of, and under the express direction of, the War Office, he would, I apprehend, be permitted to accept and wear any distinction, not being the

decoration of a foreign order, if the French Government had asked it for him, but I cannot ascertain that any such application has been made in his behalf. I should be glad to take this opportunity of assuring that gentleman, as well as Surgeon-Major Wyatt, who performed such good and humane service during the siege of Paris in administering to the comforts of the sick and wounded, that my words last Friday evening had only reference to the volunteer ladies and gentlemen who worked so honourably under the Red Cross, and not to them, as I was quite aware that these distinguished Medical officers were acting under orders and authority from home, that they had sent in the report of their humane labours to the authorities of the War Office, and that their duties had been performed with earnestness and kindness; while, on the other hand, the work of the other ladies and gentlemen had been spontaneous and without the direct control or supervision of any Government officials, but not the less involving care, danger, and responsibility. I had to draw the distinction between the official and non-official character of the work done under the Geneva Convention.

On Friday, August 18, in the House of Lords,

The Vaccination Act (1867) Amendment Bill went through Committee. On the report being received,

Lord Redesdale moved the omission of clause 10, which exempted persons who had been fined the full penalty, or two penalties of any amount, from any further proceedings. The clause had been hailed with triumph by the opponents of vaccination, who justly thought it destroyed the whole effect of compulsory vaccination. The poor would naturally think that if the rich were let off with a fine of 20s., the penalty ought in their case to be reduced, and such a resistance to the measure would spring up that the whole object of former Acts would be done away with. The Lancaster Union had petitioned against the clause.

Viscount Halifax hoped the House would not strike out the clause, as it might entail the loss of the Bill. He admitted that there were objections to its principle, but it had been unanimously recommended by a Committee of the House of Commons. Determined opposition had been offered to vaccination by a limited number of persons, on grounds which he deemed unreasonable, and while this feeling existed, it was the opinion of Mr. Simon, the Medical officer of the Privy Council, that the penalty now proposed would answer all the practical purposes of the Act. It was desirable that the public feeling should go with the Act, which would be the case if the exceptions were very few, whereas otherwise a counter-feeling might be excited. The strongest advocates of vaccination deprecated repeated fines and imprisonments, which still left the defendants' children unvaccinated.

Lord Redesdale presumed the noble viscount would think it was useless to fine a man more than twice for drunkenness. The clause would give up the whole principle of compulsory vaccination.

Their Lordships divided, when there appeared—Contents, 7; non-contents, 8; majority against the clause, 1. The clause was accordingly struck out.

In the House of Commons,

Lord Elcho, referring to the fact that during the late war two distinguished Medical officers were sent out by the Government to accompany the French army, and to report generally on its sanitary arrangements, said he had reason to believe that these reports contained matter which would prove very valuable, not only to the Medical Department, but to civilians as well, and asked the Secretary of State for War whether he would consider the desirability of publishing those reports.

Mr. Cardwell said that the objection to publishing reports of this kind was, that officers who were commissioned to watch the proceedings of foreign armies of course were received with great courtesy, while their criticisms, to be at all valuable to the Government at home, must necessarily be free and unreserved. He therefore could not give any pledge as to publishing these reports.

Lord Elcho said that possibly the right hon. gentleman might be able to look into the reports himself, and see whether there really was anything in them that could be considered offensive to a foreign Power.

Mr. Cardwell said he should be very happy to consider any suggestion which might be put before him. But, lest he should be misunderstood, he might say that his objection had reference, not to the contents of any particular reports, but to the principle of publishing these reports at all. For if it were once understood that these reports were to be published, the Government would get no more really valuable reports in future.

The Metropolis Water Bill was returned from the Lords with some amendments, which were agreed to.

On Saturday, in the House of Lords, the Vaccination Act (1867) Amendment Bill was read a third time and passed.

In the House of Commons,

Mr. W. E. Forster said the House of Lords had struck out of this Bill the tenth clause, which mitigated the penalties. That clause was passed in this House by a majority of 57 to 12, and expunged in the other House by a majority of 8 to 7, the total number of Peers voting being just about equal to the number of members on the Select Committee, which, after a long and careful consideration, came to a unanimous conclusion in favour of the clause. He should have had no hesitation whatever in asking the House to disagree to the amendment if the period of the session would allow of such disagreement being made without loss of the Bill; but as this was not the case, he feared the House had no choice but to accept the amendment. Although the clause was, doubtless, an important one, he might remark that it was not necessary to the other parts of the Bill. The right hon. gentleman concluded by moving that the House should agree to the Lords' amendment.

The motion was agreed to.

On Monday, amongst the Bills which received the royal assent in the usual form were the Factories and Workshops Act Amendment, the Vaccination Act Amendment, and the Metropolis Water Bills.

AUTOBIOGRAPHICAL RECOLLECTIONS OF THE PROFESSION.

No. XV.

By J. F. CLARKE, M.R.C.S.,
For nearly forty years on the Editorial Staff of the "Lancet."

A STRANGE CHAPTER IN THE HISTORY OF MEDICINE.

Animal Magnetism at University College Hospital—Experiments with it as a Curative Agent—Baron Dupotet, Laplace, and Cuvier on Mesmerism — Experiments on the O'Keys — The "Unknown Tongues" and Edward Irving—Mesmerism by Water and Metals—Sleep-waking—Unconsciousness and Insensibility from Mesmerism—Case of Imposture.

THERE is no chapter in the history of Medicine more astounding and bewildering than the episode of 1837-38, when for a time animal magnetism or mesmerism engrossed the attention of the Profession. It was not a mere popular mania, like that of "brandy and salt" or the "magnetic rings"; on the contrary, it engaged the minds of some of the greatest physiologists of the time, and its "manifestations" were witnessed by philosophers, poets, literary men, and "amateurs." Moreover, there was in the commencement of the trials of the "agent" such an air of probability and truthfulness that it convinced many of the most profound thinkers that it was a reality. Even sceptics shook their heads, and, whilst declaring their unbelief in many of the phenomena, could only exclaim with Franklin, "There is *something* in it." So long as the inquiry was conducted within what may be said to be reasonable bounds, no one could justly complain that it was not a fit subject for investigation. And here I think it right to say a few words upon a matter which at the time gave rise to a good deal of unnecessary vituperative discussion. Was Dr. Elliotson, in his experiments on magnetism, actuated by a true spirit of philosophic inquiry, or was he influenced by sordid and unworthy motives? Having watched him carefully throughout the entire proceedings, I am firmly convinced that his conduct, however reprehensible at last, for his credulity and the extravagances into which it carried him, was entirely free from suspicion. At the time, I differed in opinion on this point with my principal, but I never wavered in my conviction; and now that nearly forty years have elapsed I maintain that conviction. Though in the course of the inquiry he occasionally seemed to set "facts" and theories at defiance, it must be remembered that

he attempted to account for most of the phenomena obtained by animal magnetism on purely scientific and physiological grounds. That he was mistaken few will deny; but to say he was an "impostor" would be as ungenerous and unjust as to charge Johnson with imposition because he believed in ghosts. It will be remembered that when the great lexicographer was taunted with this belief, he asserted that he had seen the apparition of old Cave. When asked to describe the appearance of the apparition, he replied—"Why sir, it was a kind of shadowy being." In justice to the memory of my preceptor, it is only right to quote what he said in the course of his investigation:—"I have little respect for authorities; when I see the facts like those in the cases manipulated upon by Baron Dupotet, I must believe them. The whole Profession may laugh, but I must believe that there is a peculiar power which gives rise to the phenomena which I have observed, and that it is not sufficiently known and appreciated. They were not, however, without the authority of great men, as believers in mesmerism. Laplace, the great mathematician, second only to Newton, thus expresses himself concerning it:—'Of all the instruments which we can employ, in order to enable us to discover the imperceptible agents of nature, the nerves are the most sensible, especially when their sensibility is exalted by particular causes. It is by means of them we have discovered the slight electricity which is developed by the contact of two heterogeneous metals. The singular phenomena which result from the extreme sensibility of the nerves of particular individuals have given birth to the existence of a new agent, which has been denominated animal magnetism; to the action of the common magnetism; to the action of the mineral magnetism; and to the influence of the sun and moon in some nervous affections; and, lastly, to the impressions which may be experienced from the proximity of the metals or of running water. It is natural to suppose that the action of these causes is very feeble, and may easily be disturbed by accidental circumstances; but because in some cases it has not been manifested at all, we are not to conclude it has no existence; and we are so far from being acquainted with all the agents of nature, and their different modes of action, that it would be quite unphilosophical to deny the existence of the phenomena merely because they are inexplicable in the present state of our knowledge.' Cuvier also fully admits animal magnetism. 'We must confess,' says he, 'that it is very difficult in the experiments—which have for their object the action that the nervous systems of two different individuals can exercise one upon the other—to distinguish the effect on the individual upon whom the experiment is tried from the physical results produced by the person who acts for him. The effects, however, on persons ignorant of the agency, and upon individuals whom the operation itself has deprived of consciousness, and those other animals present, do not permit us to doubt that the proximities of two animated bodies in certain positions, combined with certain movements, have a real effect, independently of all participation of the fancy. It appears, also, clearly, that these effects arise from some connexion which is established between the nervous systems.' With the authority of two such individuals, one of them a profound mathematician, the other a distinguished naturalist, there can be no disgrace in taking the trouble to inquire into the effects of mesmerism—not, of course, going into anything supernatural, but only as to its production of such effects as we have observed in other cases, such as sleep, coma, sleep-waking, loss of power and sensation in the limbs, etc.; these we often saw. So, also, we had seen persons who appeared to be asleep, but who were sensible to external objects; and, again, we saw some faculties possessing extraordinary sensibility, whilst others were more obtuse than natural. This was the extent to which the inquiry would be carried." This was extracted from a lecture delivered by Dr. Elliotson in August, 1837, and reported by myself in the *Lancet* at the time. It would have been well for science, and well for the able lecturer himself, if he had followed out his own programme. But he went far beyond the line which I am certain he had then marked out for himself. No doubt, dazzled and astonished by the effects which, as appeared to himself and others, had resulted from experiments upon the O'Keys, he was encouraged to go too far. The mere *physical* phenomena were sufficiently striking; but what if these illiterate and hysterical girls were gifted with a prophetic spirit? In an evil hour he determined to solve this question. It resulted in disaster. It covered for a time the subject of animal magnetism with ridicule and contempt, and ruined one of the ablest, most single-minded, and ardent inquirers that has ever existed.

It is necessary, in order to understand how Dr. Elliotson, then in the zenith of his fame and usefulness, became associated with animal magnetism, to state a few facts. Early in the year 1837, a Frenchman, by name Baron Dupotet, obtained an introduction to him. The Baron had long practised mesmerism in France, and he had the reputation of being able to cure epilepsy and its cognate diseases or disorders by that agent. Elliotson immediately entered heart and soul into the subject. He had long been of opinion that if Medicine were to be improved in its practical value it must be by therapeutics. He used to say—"We know quite enough of physiology and pathology, but we are profoundly ignorant of curative treatment." Accordingly, he placed at the disposal of Dupotet several cases of epileptic girls then under his care at the North London Hospital. I well remember the first appearance of the Baron. He was a small, spare man, with a pale intellectual face. He did not speak English. The thumb of his right hand was wanting, and to this many attributed the results arrived at by his manipulations on sensitive and hysterical girls. However this might have been, it is certain that he succeeded in producing sleep of the most profound kind in several individuals. Moreover, the epileptic seizures, in some cases, were, for a time at least, arrested or mitigated—no uncommon circumstance when any new agent is employed. The *modus operandi* was as follows:—The patient was seated in a chair. The Baron stood before her. Fixing his glance earnestly and steadily upon her, he commenced his manœuvres. He "passed" one or both of his hands, extended, in a perpendicular direction, commencing at the forehead, and terminating at the chin. In most cases sleep of the most profound character was speedily produced. After allowing the patient to be insensible for a few minutes, he aroused her to consciousness by passes from right to left, and from left to right. These "passes" differed from the previous ones, inasmuch as the thumb of the operator on one side, and his forefinger on the other, were applied with some force to the eyebrows of the patient, who, by this means, was speedily restored to consciousness. It may readily be imagined that, under these circumstances, patients affected with epilepsy and hysteria soon crowded the out-wards of the Hospital. Amongst others who presented themselves for treatment were two sisters, Elizabeth and Jane O'Key. Elizabeth had long been subject to epileptic fits. She was, I believe, one of the foremost actors in the farce of the "unknown tongues," which shortly before had attracted immense attention in the *séances* of that remarkable preacher, Edward Irving.(a)

At first the experiments on the O'Keys were quite legitimate and intelligible, but they soon became of a most objectionable

(a) When a boy, I constantly attended the "orations" of Mr. Irving, at the Caledonian Chapel in Cross-street, Hatton-garden. It was at the time he was in the full blaze of his popularity. His chapel was crowded, mostly by members of the "upper ten thousand," who each paid his guinea for a seat. The carriages of the audience stretched far into Holborn, and hundreds of persons were unable to obtain admission to the "conventicle." A small boy, I walked in unchallenged, and took my seat on the pulpit-steps. I had the gratification of hearing his great sermons on the "Prophecies" and "Judgment to Come." No addresses ever given from the pulpit were more fascinating or more astounding. The preacher—a tall gaunt man, with prodigious energy, and a voice of surpassing power and sweetness—rivetted the attention of his audience. He had a face indicative of great mental power, and a forehead of grand proportions. He had, moreover, a squint, which gave to his eyes, on occasions of unusual importance, a power and attractiveness it is impossible to describe. I remember, at the interval of thirty-six years, with what delight I listened to his marvellous harangues. He had chosen for his text, on one occasion, a single line from the prophecies of Daniel—"And dominion was given." Never shall I forget the masterly manner in which he handled the subject. The great Napoleon Bonaparte had died only four or five years before. His memory was fresh in the minds of all, and the influence of his great achievements was still felt and acknowledged. Irving had a strong, and, I believe, an honest, conviction that the second coming of the Messiah was at hand. His argument was to the effect that "dominion" had been given to Bonaparte as a preparatory step to that advent. "Dominion," he said, was given to Alexander as a foreshadow and preparation of the first coming. "He conquered from the shores of the Euphrates to the Ganges; and Bonaparte conquered as wide a range of the civilised globe." His "heresies" drove Irving from Hatton-garden, and his admirers built and endowed for him the church in Regent's-square, so long presided over by the late amiable and able pastor, Dr. Hamilton. But symptoms of that aberration of mind, to which, in his later years, Irving's splendid intellect succumbed, had begun to develope themselves, and he was soon ejected from his new "tabernacle." He afterwards preached in Newman-street and at Islington-green, and other public places. It was at a meeting at Islington-green that Elizabeth O'Key first developed her powers as an enunciator of the "unknown tongues." There was an epigram published at the time, and now all but forgotten. It is not altogether unworthy of being repeated here, to show of what kind of jargon the "unknown tongue" consisted. A literary man, of some repute at the time, was present at one of these exhibitions. The only words he could clearly make out were "Bowley Bum." He wrote:—

> "The meaning of Bum I know very well,
> But the meaning of Bowley I cannot tell;
> But it seems to me a regular 'hum'
> To listen to girls chaunting 'Bowley Bum.'"

character. Elizabeth O'Key was a girl of about 17 years of age, and of extraordinary cleverness and shrewdness. She was below the middle height, indeed rather diminutive, but she had a fine expression of features and a well-formed head. She had full dark eyes, with long black lashes, "the jetty fringe" falling upon her cheek in such a manner that it was sometimes quite impossible to tell whether she was asleep or not. That this peculiarity gave her immense power in appearing to be asleep when she was not I am quite convinced. I am, moreover, convinced that she feigned some of the phenomena which were exhibited, whilst I feel as certain that others were really the production of "mesmerism." Thus, I believe that the sleep, coma, and sleep-waking(b) were the result of the passes, or of the influence of the nervous system of the operator, upon the person operated upon.

One of the most curious circumstances connected with the mesmeric experiments was that under the influence of the "agent," O'Key expressed herself in a peculiar manner. She clipped her words, and talked on subjects quite different from those which occupied her mind at the time she was operated upon. When she returned to her usual condition, however long the interval, she would resume her natural way of talking, and would pursue the train of thought which occupied her mind at the time she was placed under mesmeric influence. This was a fact, I believe, few at the time disputed. At all events, it was one of the few experiments which, after being repeated again and again, appeared to be satisfactory, inasmuch as the results were invariable. That, under mesmeric influence, she and her sister Jane—a tame prototype of Elizabeth—were quite insensible to pain, as were many others, I do not doubt. Some of the means employed to test their insensibility were of a very cruel kind, and such as Dr. Elliotson and those who acted with him did not countenance. But some of the spectators resorted to them without the knowledge of Dr. Elliotson. Thus, on one occasion, a needle was discovered to have been inserted in a very sensitive part, and its presence was unknown to O'Key.(c)

It is unnecessary to follow in detail all the various experiments which were performed to test the powers of mesmerism. Indeed, the reports which at the time appeared contain so much irrelevant matter—I may say, so much "twaddle"—that it is marvellous that they were permitted to appear in the pages of a Medical journal. It must be remembered, however, that the *séances* were attended by many of the most eminent persons of the time, and the public mind was much agitated on the subject. I avoid referring particularly to the nonsense talked by O'Key in the mesmeric state, however amusing it sometimes was; it had, in my opinion, no bearing upon the *physical* phenomena she exhibited. Amongst some of the more unsatisfactory experiments(d) were the attempts to prove that O'Key could be mesmerised by water, and by being placed in contact with various metals. Thus, it was attempted to be shown that water "mesmerised" by placing a finger of the operator in the fluid for a few seconds, would "magnetise" O'Key the moment she brought her mouth in contact with the water. It was further attempted to be shown that, if two fingers were placed in the water instead of one, the effect was more decided. Dr. Elliotson believed in the "measurement" of the agent, as it were, and would "mesmerise" one sovereign by holding it in the hand for a few seconds, and then repeat the experiment with two sovereigns, to show the more powerful influence of the latter when touched by O'Key. Experiments of this kind—and they were many—were repeated, and before audiences who for hours together waited with the greatest patience to witness the results. There were so many sources of fallacy in them that it is marvellous that there could be found any persons who could place any reliance upon them. The late Mr. Faraday did not; but Sir Philip Crampton and Mr. Herbert Mayo (one foremost amongst Surgeons, the other "*nulli secundus*" as a physiologist) did.

To my mind, these experiments were complete failures. There were no consistent results. So, again, the experiments which were performed to determine whether O'Key could be mesmerised by reflection were failures. These experiments were performed as follows:—A small hand-mirror was held at some distance from O'Key, whose back was turned to the operator, and certain "passes" were made, with the expectation of her being "fixed" by this means. Of course, expecting something was going on, she occasionally dropped into the arms of those near her; but the results of these proceedings were so uncertain that I attached no importance whatever to them. It is a fact which will scarcely be credited at this time, but is not the less a fact, that on one occasion I saw Dr. Elliotson, Mr. H. Mayo, and Dr. Lardner, at one end of the North London Hospital, O'Key being at the other, "passing" a small mirror, at a distance of sixty yards, with the expectation that they could "fix" her. She was, after an interval, fixed, and the operators believed from the influence exerted upon her by the reflected "mesmeric rays"!

One experiment stands out in striking contrast to those just mentioned; it was one of a most extraordinary kind, but could not be questioned as to the fairness with which it was performed, nor as to the result. An eighty pound weight, placed on the floor, was attached by a rope to O'Key's right arm, which was carefully bandaged to prevent any injury to it. A few "passes" were made above her arm, and the weight was lifted two or three inches from the ground—this, too, at an angle the strongest man could not have effected. The explanation given was "a convulsive action of the muscles, consequent upon mesmerism." Now succeeded a course of experiments to prove that one of the perceptive faculties—"sight"—could be exerted successfully (to use the language of Mr. Mayo) "in unaccustomed corners and angles of the frame." Experiments on this point were tried over and over again, but not a single satisfactory result was obtained. It seems ludicrous even to read of, and how much more so was it to witness, a watch placed at the pit of the stomach, or at the point of the elbow, with the expectation of O'Key being able to *see* the time! It might be supposed that credulity could not go beyond this. I shall, however, in my next show that it did, and with disastrous results to mesmeric prophecy and Dr. Elliotson.

(b) Dr. Elliotson explained in his observations that we were ignorant of the causes of many of the phenomena connected with the nervous system, but many of these, if not all of them, he contended, might be produced by mesmeric influence. He particularly dwelt, on several occasions, on the remarkable state called somnambulism, which bore in most respects a close analogy to the sleep-waking of O'Key, who could be put into a state of unconsciousness and insensibility at the will of the operator. In this state, O'Key could answer questions, perform different feats she could not do in her normal state, and when roused to consciousness would have no recollection of what had occurred in the abnormal condition in which she had been placed.

(c) There was, however, one case operated upon—a girl of the name of Ross—which would appear to throw some doubt on this point. This girl having been put *apparently* under the influence of mesmerism, requested that two of her teeth might be extracted. They were extracted without the slightest evidence of pain having been inflicted. This girl afterwards admitted that she was "shamming."

(d) These were afterwards repeated by Mr. Wakley, and proved to be *mistakes*, as I shall show in a future article.

ARMY MEDICAL DEPARTMENT.

The Director-General of the Army Medical Department presents his compliments to the Editor of the *Medical Times and Gazette*, and begs to inclose for insertion a list of candidates who have competed successfully for appointments in her Majesty's British Medical Service at the examination held at the London University on the 9th inst.

Army Medical Department, August 22.

List of Gentlemen who Competed successfully for Appointments as Assistant-Surgeons in her Majesty's British Medical Service at the Competitive Examination held at the London University on August 9, 1871.

Order of Merit.	Name.	Marks.	Order of Merit.	Name.	Marks.
1.	Cottle, E. W.	2060	8.	Bridges, W. P.	1875
2.	Connolly, P. S.	2055	9.	Rogers, J. G.	1865
3.	Dwyer, C. E.	2020	10.	Ash, R. V.	1825
4.	Blood, R.	1970	11.	Grant, W. C.	1782
5.	Fasken, W. A. D.	1959	12.	Connolly, B. B.	1720
6.	Edge, J. D.	1890	13.	Barrow, H. J. W.	1665
7.	Drury, R.	1885	14.	Barrow, F. E.	1654

The Committee of the Seamen's Hospital have, through their secretary, written to the Privy Council, urging that, in view of the anticipated early appearance of cholera in the port of London, they are of opinion that the sanitary inspection day by day of all ships, barges, etc., in the River Thames from London-bridge to Woolwich, together with the Regent's Canal and the several docks, basins, and creeks adjacent, is a work of such public importance that it should not be left for voluntary performance by a charitable institution armed with no authority whatever, and, moreover, dependent even for its ordinary expenditure on the bounty of charitable individuals to the extent of £5000 in every year.

BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

REPORT OF THE FORTY-FIRST MEETING.

EDINBURGH, August 9, 1871.

ANTHROPOLOGICAL DEPARTMENT.—(*Continued.*)

ON DEGENERATION OF RACE IN BRITAIN.

By Dr. J. Beddoe.

THE athletic movement in English schools and elsewhere was doubtless in part due to an undefined idea that the development of the body was becoming neglected as civilisation progressed. But the good results of this movement are by no means unmixed, and, such as they are, they affect chiefly those classes which stood least, or among the least, in need of improvement. There is still as much need as ever that the facts relating to this subject of national physical degeneration should be investigated and confronted; and the late Franco-German war has opened the minds of many to this necessity, by once more demonstrating that victory marches with the armies of those whose physical as well as their moral organisation is superior. We are told that the inferiority of the soldiers of France to those of Germany was as conspicuous in their size, strength, endurance, and marching power as it was in discipline and subordination. It is true that the Germans were, to a somewhat greater degree than the French, the picked men of their country; but this, though it prevents the comparison of the two from being altogether fair as between the two countries, in no way impairs my argument, for if the Germans were picked men, they were picked on physical grounds, and the value of their physical superiority remains equally conspicuous. Looking at the matter *à priori*, one would say that in some classes and in some districts it is not unlikely that some improvement may be taking place. Some of the conditions of life are improved and improving—for example, in the upper class of townspeople, who are, on the whole, more healthily lodged, and perhaps less sedentary than they used to be. The Factory Acts have checked the deteriorating agencies of our manufacturing system. The peasantry of some parts of Ireland, the Highlands, and Wales may be better fed than they were a generation back. It does really seem as if the cotters of Cardiganshire had improved in physical development since the last century, when they are described by a traveller as five feet two or three inches high, whereas now they are not a remarkably small people. But, on the whole, I much fear that the conditions, the media—the *milieux*, as the French anthropologists call them—which act on the physique of the British, tend rather to grow worse than to grow better. To begin with, there is the one great and inevitable evil—the gradual accumulation of our people into large towns, and the relative, and often even absolute, dwindling of the rural population. Large numbers of people are constantly being employed in in-door occupations, mostly sedentary, and some nocturnal and exhausting; and the demand for the labour of women and children also increases. Changes are taking place in the dietary of the working classes, and, as their wages rise, it seems to be supposed that they are better fed, but on closer investigation this seems very doubtful. Of the four countries—England, Wales, Scotland, and Ireland—the first, which is the richest, and considered to be the most advanced in material civilisation, and whose habits and modes of life are more and more imitated by the others, is, according to Edward Smith's reports on the subject, the one in which the people are most scantily and ill-nourished. The scarcity of milk especially, as to its supply to children in towns and in dairy districts, is a growing evil, and one of national importance. Here I may mention, as having probably a relation to the quality of the food, and possibly to this very defect of milk, the apparently growing evil of unsound teeth, which, again, seems to advance *pari passu* with the advance of material civilisation, and is worst among the English and the townsmen of the United States, not so conspicuous among the Scotch, and decidedly at the minimum among the Irish. Certain changes in the process of natural selection, as it operates on our people, seem to me to be on the whole detrimental to the standard of physical type. Emigration drains away large numbers of the stronger and more energetic young men from the best of our districts; so do the military and civil service in India; and the voids are supplied to a less extent than they used to be from the rural population, wherein the rates of marriage and of birth are much less than in that of the towns. The classes that yield the largest number of births are, beginning with the least important—1st, fishermen; 2nd, miners, especially coal-miners, and the like; 3rd, the proletariat of large towns. Whatever may be said of the two former, this last and most important is, physically, about the worst developed in the kingdom. Formerly it did not tend to increase in numbers, relatively, to other classes, because the death-rate in the worst quarters of towns was so high as to balance or overbalance the birth-rate—such was the case not long ago in Liverpool, for example. But the effect of sanitary improvements has been so considerable, that the rates of sickness and death in these quarters are being decidedly ameliorated; and this improvement, regarded dispassionately, is no more an unmixed good than are good things in general; for the increase in the number of survivors brings about a disproportionate augmentation in the numbers of the class in question, and thus lowers the average standard of physical development. In thus speaking of probable causes of physical degeneration, I am merely giving a sketch of a few of them by way of example. Many others will readily occur to those who give but a few moments' thought to the subject. My object really is, to urge on those who have leisure, opportunity, and goodwill to assist in working out a very practical and important department of anthropology, or, if you prefer it, of social science, that they should direct their efforts to the collection of facts bearing upon it. Thus a careful examination of the registers in a few densely peopled districts, checked and supplemented by personal inquiry by persons of local knowledge, might clear up much that is yet doubtful about the acclimation of new-comers in towns, and the operation on them and on the natives of natural selection. It seems desirable also to me, and not only to myself, but to divers men of eminence and weight as scientific inquirers, among whom I am permitted to name Mr. F. Galton and Dr. Farr, that the actual average condition of our population, or of some representative sections of it, as regards stature, bulk, strength, and like particulars, should be ascertained as exactly as possible, so as to furnish a starting-point for further inquiries.

Discussion.

The PRESIDENT said that of late years he had had through his hands a large number of the crania of ancient inhabitants of these islands; and it was most interesting to compare the teeth in the skulls of these more primitive people with the teeth in the skulls of the moderns. He hardly ever found decayed teeth in one of those ancient craniums, whereas he scarcely ever found the skull of an adult modern in which some of the teeth were not decayed, while a considerable number had lost their teeth altogether; so that it was clear that, whatever advantages civilisation might bring, it did not improve the condition of the teeth.

Mr. PICTON thought that if the conclusions were true at which the writer of the paper had arrived, it was indeed a lamentable future which we had before us. But he confessed that he could not come to the same results; nor did he think that any of the statements put forward by Dr. Beddoe would at all bear out those conclusions. It would be admitted on all hands that our population never increased so fast in the whole period of our history as it had done during the past century. Did that indicate a better or a worse state of health? It was generally considered as being an evidence of the good sanitary state of a community that the death-rate was diminishing—that was, conversely, of course, that the population was increasing. All the efforts of our sanitary reformers, and the laws passed every session on sanitary affairs, were in that direction. He rejoiced when the death-rate was diminished, and considered it an indication that our population was improving in constitution, in physique, and in health. He was not aware whether the present standard of the French army was higher or lower than it was at the time of the Great Napoleon. He rather thought it was higher. But, taking our own army, the standard of recruits was, he believed, not lower, if it was not higher, than it was forty or fifty years ago, which did not, in that respect, indicate any diminution in the average size of our population. With the hours of labour shortened for the working population, with better wages for them, and with greater means of comfort than were before placed at their disposal, it would indeed be strange if the result should be a deterioration of our race. He could not believe it. All the facts of the case seemed to him to warrant an opposite conclusion.

Dr. KELBURNE KING wished to say a word in favour of little men and middle-sized men, as against large men. The French, as a general rule, were a smaller race than the Germans; yet, as a matter of fact, the small men of the French nation had beaten the big men of the German nation; and it was quite on the cards that they might do so again. The fact of the French

having been defeated on the last occasion need not make the little men despair. They had the history of the past, and the hope of doing better in the future.

Mr. VIVIAN would advise men to go in for teetotalism if they wished to enjoy many days.

Mr. SEWELL pointed out that the deterioration of agricultural labourers in the North of England had been attributed to the immoderate use of tea. If any change had come about, it was, to a great extent, owing to alteration in our national beverages. He wished all his friends drank good, pure beer, or, if they did not like that, good, pure milk; but he was afraid it would be a long while before they got those things in sufficient abundance and purity to keep them all in good health.

Professor BELL, St. Andrews, said there could be no doubt of the fact that one-half of the human family died, all the world over, before they reached 14 years of age; and that of this proportion something like one-half in our large towns died before they reached 10 years of age. Examining the statistics on the subject more closely, he found that, before children were 1 year old, a much larger mortality occurred; and when he came to analyse the matter still more, he found that the diseases which created that large mortality were preventible diseases—diseases chiefly to be put down to improper rules regarding food, air, and clothing.

ON CENTENARIAN LONGEVITY.

By Sir Duncan Gibb, M.D.

The author recorded the facts of four persons he had seen, and who had reached 100 years. In them all the functions of breathing and circulation were performed with the most complete and perfect integrity, there being an absence even of those changes usually seen as the result of ordinary old age. The chest was well formed, and of fairly good capacity; the cartilages of the the ribs were not ossified; the voice was good, clear, sonorous, and powerful, though a little cracked and tremulous in tone—its power depending upon the capacity of the chest and integrity of the lungs. The heart—the great organ of the circulation—was quite healthy, and free from the chief sources of trouble in old persons—namely, fat or its compounds. The circumstance, although it did not prevent moderate calcification of the bloodvessels, yet was a conservator of all the tissues of the body, and especially prevented the occurrence of those changes which tend to shorten life. There was an absence of the atheromatous changes commonly observed in old people. This explained the appearance of the countenance in all, and imparted a sort of silvery expression, with apparently great toughness of the skin, which the author deemed an essential peculiarity in persons over 90. All the special senses were unimpaired except hearing. The eye was clear in all, the sight excellent, all could read ordinary type without spectacles; there was no arc or ring round the clear part of the eye, as observed in most old people. The sense of smell was good; none smoked, used snuff, nor chewed tobacco. The hearing was somewhat impaired in three; in one of the males it was so acute that he could hear the slightest sound. The mental faculties were active in all, the memory good. The general health was capital in all, appetite and digestion good—the latter, indeed, uncommonly strong; all possessed the good, sound teeth they had masticated with when young. From this it was readily understood their digestive powers were capital. Taking, then, the condition of mind and body presented by the four undoubted centenarians, it may be said that in all there was an absence of those changes usually observed in persons approaching the allotted period of threescore and ten. These changes have reference chiefly to the condition of the bloodvessels and other tissues which are so seldom found absent. Suffice it to say that complete composure of mind throughout life has had much to do with the condition of body permitting the attainment of such great longevity; there was no hereditary condition, also, to interfere with nature's laws under such circumstances. Climate does not seem to interfere with longevity, for centenarians are said to be numerous in Russia. To reach that age not only must the constitution be a naturally good and healthy one, but all the great functions of life must be performed without any impediment. If the special senses are co-ordinately good, they assist in keeping up the condition favourable to longevity. But there is one change antagonistic to extreme longevity, and it is the most important one—namely, the predominance of the atheromatous element which leads to those changes, in the bloodvessels especially, which close life at the natural period. Simplicity of regimen and avoidance of those elements of food which in their assimilation help to bring on those changes may ward it off altogether, although the author was not able to make out whether the four centenarians he spoke of had been in any way particular on this point. In conclusion, he said he believed all centenarians were tired of life, however extraordinary it might appear, and were thankful when it pleased God to remove them from this world.

ON THE COMPARATIVE LONGEVITY OF ANIMALS OF DIFFERENT SPECIES AND OF MAN, AND THE PROBABLE CAUSES WHICH MAINLY CONDUCE TO PROMOTE THIS DIFFERENCE.

By George Harris, Esq., F.S.A.

The author stated that authors of high repute and great credit—modern as well as ancient—afforded extraordinary accounts of the longevity attained by certain animals. Smellie, in his "Philosophy of Natural History," mentioned some instances. Elephants lived beyond 200 years; in proportion to the size of their bodies, birds lived longer than either man or quadrupeds; and swans had been said to live 300 years. Buffon informed his readers that he had seen carps of 150 years of age; and he mentioned one which he supposed to be 200 years old. Pike had been known to live to 267 years; and parrots and several other animals, including some reptiles, were also said to afford extraordinary instances of longevity. Few domesticated animals were long-lived. The habits into which they were forced were contrary to nature. They took but little exercise; they fed on artificial diet; and their instincts became blunted. It was, accordingly, among wild animals that extraordinary instances of longevity were afforded. Passing on to speak of longevity in man, Mr. Harris said it might be assumed that the real and only scientific test as to the capacity of any particular individual frame to last for a greater or less period of time, turned on the constitution of such frame, whether as regarded its material texture, its temperature, its organisation, or its fluids, more especially the blood. Proved longevity depended mainly on natural constitution. Nevertheless, inasmuch as whatever might be the natural constitution, there were certain causes which would tend to abridge longevity—such as incontinence, intemperance, unwholesome diet, and adopting many artificial habits—were there not, also, certain causes which, in a corresponding manner, would tend to increase longevity? In fact, the real and sole question which arose was, Could any measure be adopted which would have the effect, to any important extent, of checking waste or expenditure on the one hand, and of increasing growth or reproduction on the other? And this was a subject open to experiment, in many ways, of a most interesting kind.

Discussion.

Dr. MURIE had examined about 5000 animals; and the very diseases which he had ordinarily found in man he had discovered traces of in those animals—only, in some cases, modified. He had found consumption—modified in many ways, but still pure consumption—disease of the heart, disease of the bowels, diarrhœa, dysentery, and all the affections of the stomach and the intestines; and these were all produced by the same causes which we, as beings ourselves, were subject to.

Mr. RAY LANKESTER desiderated the statement of any new facts in the last paper. They had all been before the public for a considerable length of time. What they wanted was the result of further observations, and the sifting of evidence.

The PRESIDENT asked, with reference to what had fallen from Dr. Murie, if the animals he had examined were not all animals living in a state of confinement? One could hardly look upon animals in confinement in the Zoological Gardens as animals living altogether in a natural condition. He should be inclined to think that the diseases which Dr. Murie found in these animals were due to precisely the same causes as the diseases of civilised men—such as confinement, crowding together, want of exercise and of natural and proper food, and various circumstances of that kind.

SECTION D.—DEPARTMENT OF ZOOLOGY AND BOTANY.

Dr. Wyville Thomson presided over this department, and read a very able paper on "The Structure of Cronoids."

ON THE DEVELOPMENT OF FUNGI IN THE THORAX OF LIVING BIRDS.

By Dr. Murie.

Dr. Murie referred to the circumstance of lowly organised vegetable structures being not unfrequently found growing in animals and man, both externally and internally. For the most part these affected the skin, giving rise to several cutaneous diseases. They also flourished in the alimentary canal; and among others, one peculiar form (*Sarcina*) had been described by the late Professor Goodsir; from the human

stomach. In nearly though not all instances where vegetable organisms flourished within the living body, it was in organs where a certain amount of air had free access. It was more difficult, though, to account for the cases where vegetable parasites arose in (so to speak) closed cavities. The instances which he (Dr. Murie) brought forward as coming under his own observation were three in number—viz., a fungus-like growth in the abdomino-pleural membrane of a kittiwake gull, a great white-crested cockatoo, and a rough-legged buzzard. After a general description of the specimens in question, the author referred to them as in some ways bearing upon those doctrines whereby living organisms were supposed to originate out of the tissues themselves. Other weighty reasons undoubtedly might be given to the contrary; but as every fact, either furnishing doubtful evidence of, or opposed to, the spontaneous generation theory might be useful at the present juncture, he thought a record of such worthy of being brought before the Association.

Mr. Cooke and Professor Percival Wright questioned whether the vegetable structures spoken of by Dr. Murie might not be Algæ.

Dr. Bastian said the question calling for most consideration was, how these vegetable forms came to be found in a place cut off entirely from communication with the atmosphere. After mentioning the hypothesis that the spores of the fungi or algæ might have penetrated the tissues of the lungs or other vessels, and so reached the thoracic cavity, he explained his own views on the subject, illustrated by his experience in finding in the brain, and other portions of the human body isolated from the atmosphere, immense numbers of living organisms shortly after death, which, so far as could be ascertained, had no existence when the patient was alive. Either these organisms must have been previously present in the blood in a latent state—their germs being so minute as to be undistinguishable—or they must have come into existence by spontaneous generation

Action of Heat on Germ-Life.

By Dr. Crace Calvert.

The paper described a series of experiments made by the author for the purpose of determining the effect of heat on living organisms. He took a solution of white of egg full of microscopic life, and a solution of gelatine full of microscopic life, as also solutions of sugar and hay. These solutions were put into little tubes and submitted to temperatures of 100°, 200°, 300°, 400°, and 500° Fahr. It was found that at 100° the living organisms were not at all affected; at 200° they were not affected; at 300° they were still alive—three or four vibrios in each field; and it was only at 400° that life disappeared. The same solutions were then put on little slips of glass, dried, some in the air and some at a temperature of 212°, and introduced into tubes. As before, it was only at 400° that life disappeared. By another experiment, it appeared that in a fluid where life had been destroyed by heating to 400°, no life was subsequently developed; whereas in one which had been heated to some of the lower temperatures, such development took place. If, said Dr. Calvert, there was such a thing as spontaneous generation, he could not understand why there should not have been life reproduced in his tubes which had been heated to 400°; whilst a little life was reproduced in one heated to 300°, and more in one heated to 200°. It appeared to him that Medical men would do well to consider the temperature at which life was destroyed. Admitting that contagious disease was due to the introduction into the system of a germ of some kind, either vegetable or animal, so far as his experiments went, a temperature of 400° was necessary to destroy such germs on clothing to which they might have become attached.

On Protoplasmic Life.

By Dr. Crace Calvert.

If the white of a fresh egg be taken and mixed with water and examined under the microscope, not the slightest life was to be seen, but at the end of twenty minutes or half an hour, plenty of life might be discovered. In such experiments a fluid must be employed, and whatever fluid was employed, if examined under the microscope, it showed life. Common distilled water, if kept for two or three days, showed life; but after many failures, he discovered an apparatus by means of which he had been enabled to get distilled water which would keep free from life for three months. Having thus got a pure medium without life, the question was whether he could generate life in it. He introduced distilled water into twelve tubes, and left them exposed to the air for twenty-four hours. It was in winter; in the summer he should have left them for ten minutes. Another series of tubes were placed near putrid meat, and then closed. Life appeared in twenty-four days in the tubes containing distilled water which had been exposed to the air, but a portion of the same water which had not been exposed to the air showed no life. The tubes which had been placed near putrid meat showed life in eight days. The distilled water was thus impregnated with more life by being placed near a source of putridity. Up to this point he had been using hydrogen to wash his apparatus. He replaced the hydrogen by oxygen, and found that by using water saturated with oxygen he produced life in three or four days instead of eight days. Then taking water into which a little albumen had been allowed to run without being exposed to the air, he found life developed in two days. The general result of the experiments was, that life was produced if the fluid under examination was left exposed to the air for a very short period. If perfectly sweet eggs were covered with varnish, they would keep for eighteen months, while if not so covered they would not keep as many weeks. But if there was such a thing as spontaneous generation, why should not the egg covered with varnish decompose as soon as the other?

Dr. Nevins said the Rev. Mr. Dallenger, of Liverpool, by means of experiments with water produced by the combination of hydrogen and oxygen, had arrived at similar results.

Mr. Macknight expressed a hope that the experiments which had been described would set for ever at rest, unless something could be shown in opposition to them, the miserable delusion of spontaneous generation, and that the scientific world would not be bothered with the resuscitation of exploded errors.

Sir Walter Elliott remarked that it was only fair and philosophical to carry on inquiry as long as anything could be gained by it, and not to set down a question as settled in the present state of our knowledge.

Dr. Bastian said that Pasteur had admitted that various organisms were destroyed in fluids at the temperature of boiling water. Similar statements had been made by Huxley. Indeed, with the exception of perhaps a few individuals, he should say it was Dr. Calvert against the great mass of biologists and chemists who had argued the question, when Dr. Calvert wished them to believe that organisms were not destroyed in boiling water. Again, Dr. Calvert had not explained in any way how he found out that in some of his experiments the organisms remained alive. He (Dr. Bastian) had made very simple experiments to test the question at issue. On boiling pond-water he found that, when the fluid was heated to 60° C. or 140° Fahr., and exposed for ten minutes to that temperature, the amœbæ and infusoria which it contained were destroyed. So, also, with regard to the bacteria and vibrios, referred to by Dr. Calvert, he had found that they were apparently killed by being exposed to 60° C. Then he had found that, while a certain solution, if unboiled, would soon become quite turbid and swarming with vibrios, the same solution, if boiled, might be kept for weeks without such development. The results of his own experiments, as well as those of others, he found it very difficult to reconcile with the presence of germs in the atmosphere.

Dr. Calvert, in replying, claimed to be able to distinguish a living vibrio from a dead one.

SECTION C.—GEOLOGY.

On Geological Systems and Endemic Diseases.

By Dr. Moffatt.

In a paper which he read last year, the author had stated that the district in which he lived consisted geologically of the carboniferous and the new red or Cheshire sandstone systems; and that the inhabitants of the former were engaged in mining and agriculture, and those of the latter in agriculture chiefly. Anæmia with goître was prevalent amongst those on the carboniferous system, whilst it was almost unknown among those of the Cheshire sandstone, and phthisis was also more prevalent among the former than the latter. As anæmia was a state in which there was a deficiency of oxide of iron in the blood, he examined chemically the relative composition of wheat upon a soil of Cheshire sandstone, carboniferous limestone, millstone grit, and a transition soil between the Cheshire sandstone and the grit. The analysis showed that wheat grown upon Cheshire sandstone yielded the largest quantity of ash, and that it contained a much larger quantity of phosphoric acid and oxide of iron than that grown upon the other formations. The analysis also showed that the wheat grown upon the carboniferous system was deficient in phosphates or nutritive salts. With the view of ascertaining whether the bread of those who dwelt upon the two systems was relatively as deficient in the nutritive elements as the wheat, he collected twenty samples of bread used by twenty different families living on each system, and the analysis afforded results as conclusive as the examina-

tion of the wheat. The deficiency of the nutritive salts in the bread, compared with those in the wheat, was remarkable, no doubt owing to the removal of the bran from the flour with which the bread was made. From statistics it was found that the number of deaths from anæmia was greater on the carboniferous than on the new red sandstone system at all elevations, and that there was a greater number of deaths from cancer on the red sandstone than on the carboniferous system. The number of deaths from struma diminished with the increase of elevation. On the carboniferous formation on both sides of the estuary of the Dee, at a mean height of 30 feet, the number of deaths per 1000 of population from struma was 14 and 22 greater than it was on the Cheshire sandstone of nearly the same elevation; while at a mean height of 500 feet it decreased to only three above it. This diminution with elevation in the death-rate of strumous persons he attributed to meteorological causes, the chief of which he believed to be atmospheric ozone. The practical deductions to be drawn from this inquiry were, that all young persons living on a carboniferous formation having symptoms of incipient goître and anæmia ought to be moved to a soil upon red sandstone; that persons of strumous habit ought to reside upon sandstone of an elevation of at least 800 or 1000 feet above the sea; and that both classes of persons should live upon food—both animal and farinaceous—which contains the maximum quantity of oxide of iron and the phosphates of nutritive salts. Medical men could not too much impress upon the minds of the public the importance of using flour made from the whole of the wheat or "whole grain."

Mr. G. A. Lebour, H.M. Geological Survey, said that in a part of Northumberland, where the carboniferous district contained a thin bed of limestone, the inhabitants suffered very much from goître.

Professor Young said that those who undertook investigations of this kind should limit their examinations to one class of diseases, or a group of diseases, sufficiently distant pathologically as not to interfere with one another.

Sir Richard Griffith said that in Ireland they had plenty of carboniferous limestone, and not a case of goître was known in those districts.

Professor Hull added his testimony to the healthful character of the new red sandstone of England as a foundation for houses and towns. He thought the towns of England should be built on the sandstone, and that the coal measures should be given up to the production of coal, oil, etc. In Birmingham, which had never been visited by cholera, the new red sandstone was peculiarly adapted to promote the health of the inhabitants. It was porous and dry, and the most wonderful natural filter which existed in these islands. However, the most healthful situations and formations might be converted into pestiferous dens by the neglect of ordinary sanitary arrangements, and he hoped that increased attention would be paid to those ordinary sanitary arrangements.

A Member said he thought Dr. Moffatt's deductions were mere coincidences, and that they were not traceable to the causes to which he referred. The character of the food was very fluctuating, depending as it did on the state of the markets and crops, and it was also a fact that the people were largely fed with food which was imported.

Dr. Moffatt, in his reply, said that goître was found to decrease after the introduction of a different kind of food. He also mentioned that the sheep in that district were peculiarly subject to anæmia.

SECTION F.—ECONOMIC SCIENCE AND STATISTICS.

PRESIDENT'S ADDRESS.

The President of Section F, Lord Neaves, in his introductory address, dwelt with much common sense and not a little quiet humour on various topics. That relating to the deductions from the Registrar's returns was, perhaps, best. On this point he said that the Registrar-General's returns for Scotland were in a very satisfactory state, and in respect to vital statistics Dr. Stark's reports contain the most valuable and most interesting information. One singular result that seems to have been established by the tables there given is, that at every quinquennial period of life from 20 years of age up to 85, married men die in Scotland at a much lower rate than unmarried men. Sometimes the difference is very great, particularly between 20 and 45, up to which period it approximates to as high a rate as two to one; but after that, the difference, though less, is still very considerably in favour of the married men. The subject is more complicated as regards women, from obvious causes, though here, too, marriage seems to be the more favoured state. As regards both sexes, the advantage on the side of marriage is easily accounted for up to a certain point. Generally speaking, those who marry are likely as a class to be better lives than those who do not. The unmarried will infallibly include a greater number of sickly or diseased constitutions than the married class. Without professing myself an implicit believer in Darwin, I acknowledge the truth of several of his statements in his "Descent of Man," as to what he calls sexual selection. As a general rule, the attachments that lead to marriage will be prompted by considerations that are intimately connected with health and strength. Good looks, cheerful tempers, and buoyant constitutions are great attractions, and those who are wholly devoid of these, as well as those who are the victims of bad health, will often be excluded from having tickets in the matrimonial lottery. No doubt, causes occur not unfrequently which disturb these natural tendencies. Some of these causes are allowable or laudable, others are the reverse. In a few cases affection leading to marriage may be inspired by great virtue, or by great talent, or high accomplishments, though not associated with health or strength. In other cases, connexions may be formed that are wholly unconnected with love—as where rank, or wealth, or influence may overcome the natural repugnance excited by deformity or disease. Burns I think it is that says—

> "Be a lassie ne'er sae black,
> If she hae the penny siller,
> Set her upon Tintock tap—
> The wind will blaw a man till her."

Still, as a general rule, both men and women who are married are likely, on an average, to have more health and vitality than those who remain single. As regards the male sex, again, those of them that are of dissolute habits or unsettled and thriftless dispositions are not so likely to marry as those who are orderly and well-conducted, and in favourable circumstances of life. But after making allowance for these elements, it still appears that the death-rate of married men is at all periods of life lower than that of the unmarried. This can be accounted for only on the footing that marriage is favourable to health by conducing to regular habits of life, and by giving natural scope to the domestic affections. It cannot be doubted, for instance, that an old man who has a wife to take care of him will be much better looked after than if he lived alone. It is not necessary, in adopting this view, to suppose that the married life is to be wholly free from sorrows, cares, and anxieties. Even these are not always prejudicial to health, and we are, perhaps, the better for them when they are well encountered. Neither is it essential that the matrimonial current should always run a smooth course. Most of us, probably, would agree with the view taken by Paley, who, when an old clergyman at an episcopal dinner asserted that he had been married for forty years, but had never had a difference with his wife, observed quietly to the bishop that "it must have been very flat." An occasional ripple will occur in all water, unless it be frozen over, and perhaps after marriage, as well as before it, there may be truth in the maxim, "Amantium iræ amoris redintegratio." In referring to this matter, it has occurred to me to consider whether, if the lower death-rate of married persons is an ascertained fact, this may not partly account for the general success of life insurance offices when well conducted. It is clear that an office transacting on the usual calculations of mortality has advantages of various kinds. In particular, its Medical examinations, which are a most important part of its constitution, exclude hazardous lives, except, at least, at extra premiums. The rank of life, probably, of parties effecting insurances may also benefit the office; but if married men are to a certain extent to be considered as selected lives, this also, I should think, must tell in favour of the office.

On the Scientific Aspects of Children's Hospitals.

By Dr. William Stephenson.

The Edinburgh Sick Children's Hospital was established eleven years ago to provide for the reception and Medical treatment of the children of the poor during sickness, and to promote the advancement of Medical science, with reference to the diseases of childhood, and to provide for the more efficient instruction of students in this essential department of Medical knowledge. At present it contained seventy-four beds—thirty-two for ordinary patients and forty-two for fever cases. Children's Hospitals, he said, were needed for scientific requirements, and to arrive at any important clinical results they had to group together large numbers of cases, such as could only be done in Hospitals of considerable size. It was recommended that students should be made to study the

diseases of children before receiving their diplomas, and reference was made to the advantages of such an institution for training nurses.

Lord NEAVES said there could be no doubt of the importance of the Children's Hospital to the Medical School; but he said that such an institution would have a prejudicial effect on society if parents were to be allowed to take their children there whenever they were ill with measles or hooping-cough. In the administration of these Hospitals they must take care that in relieving special cases they did not give encouragement to improvidence.

Dr. DAVID MURRAY said he believed that the outdoor department of the Edinburgh Hospital for Sick Children did a great deal of mischief. Parents brought their children labouring under dangerous diseases to the Hospital, where they were collected in groups, and the effect was to spread the diseases.

1. ON CERTAIN CASES OF QUESTIONED LEGITIMACY UNDER THE OPERATION OF THE SCOTTISH REGISTRATION ACT—2. THE ILLEGITIMACY OF BANFFSHIRE — 3. THE EXPEDIENCY OF RECORDING STILL-BIRTHS.

By George Veten, Esq.

1. This paper had reference to the subject of adulterine bastardy. It touched upon the conflict between the legal presumption in favour of a child born in wedlock being the lawful issue of the spouses and the mother's conviction of its illegitimacy; and showed the course followed in the registration of such cases.

2. This paper gave elaborate details regarding the illegitimacy of births during the four years ending 1861, and embraced a supplementary appendix relative to the four years ending 1869, the records of which are the latest available. It showed, *inter alia*, that, with a few rare exceptions, the county of Banff has always exhibited the largest percentage of illegitimacy—viz., about 16 per cent.—the ratio for Scotland being between 9 and 10 per cent. Very considerable difference exists in the different parishes; the maximum rate being upwards of 25 per cent., and the minimum as low as 6 or 7 per cent. As a rule, the seaboard parishes gave a lower percentage of illegitimacy than inland ones. Neither the excess of females over males, nor the comparative number of houses and windowed rooms (as ascertained at the census) affords any satisfactory solution of these differences; but with regard to the county generally, the comparative paucity of marriages may have something to do with the large amount of illegitimacy. The paper, which was accompanied by several tabular appendices, also contained some curious particulars relative to the occupations of the mothers of illegitimate children, the number of cases in which the paternity was acknowledged at registration or found by decree of court; and the number of children legitimated by the subsequent marriage of their parents.

3. This paper mentioned that, while these births were recorded in France and some other Continental countries, they were not registered either in England or Scotland, and showed that the statistics of the subject are very imperfect. The still-births in Glasgow during the three years subsequent to 1849 were estimated by the late Dr. Strang to have amounted to one in twelve, or upwards of 8 per cent. In France their percentage amounts to between 4 and 4½ per cent, and in Paris to about 7½ per cent. The ordinary proportion among legitimate children is from one in eighteen to one in twenty of all births, and among illegitimate children three times greater. More males are still-born than females—viz., 140 to 100. It also referred to the difficulty of defining the terms still-birth" and "viability," to the suppose prejudice against the registration of still-births, and the desirability of their being recorded, on the ground of public policy and in the interests of Medical science. The paper concluded with a recommendation that the experiment should be tried in Scotland, and gave some practical suggestions as to the mode in which it ought to be carried out.

SECTION G.—MECHANICAL SCIENCE.

ON A NEW SYSTEM OF WARMING AND VENTILATION.

By J. C. Morrison, Esq.

Mr. Morrison said: At the meeting of the British Association at Exeter, Professor Archer very kindly read for me a paper descriptive of my system of ventilation applied to dwelling-houses. To-day, I intend to call your attention to other applications most intimately connected with sanitary science. In carrying out my system, I have had forced on my conviction the very close relationship between ventilation and vitality, which form the subject of this paper. That the relation may more clearly appear, I shall, with your kind permission, read to you, from page 219 of the Association's *Transactions* of 1869, the short outline of my system by the editor:—"The main features of this novel system of warming and ventilating consist in so circulating pure fresh air (through a warming chamber) into the room, and of foul air (through the fire) into the chimney, that all local currents are resolved into one, which, describing an unbroken circuit, forms an upper warmer current from the fire to the opposite wall, and an under colder current (under the floor) from the wall back again to the fire, when, after supporting combustion, the products escape up the chimney. The vacuum thus produced by the warmer current through the chimney creates the now colder current from the atmosphere, which, passing through the heating-chamber, supports the respiration of any number of individuals." From this extract you will readily perceive that, imitative of nature, I produce, by mechanical means, an artificial trade-wind. Commingled with this air in motion, I propose to carry, in a circuit and by a current, the conditions of life to plants and animals—firstly, by an outward current from any centre to any circumference, to carry the conditions of life to them, and, secondly, by the veins of the returning current of the circuit, to remove from them their exhalations. For several years I have had in contemplation the carrying out of such a system, in exact imitation of the currents of the atmosphere and the circulation of the blood; and reflecting over the fact that one grain of musk has been known to perfume a room for thirty-six years without sensibly losing weight, it occurred to me to take advantage of this extreme divisibility of matter in nature, and, by copying her in other respects, to carry by artificial appliances all such substances as by solution in spirit, water, or other simple mediums can be so divided, and consequently evaporable into any current of air passing over them. Acting on this thought, to carry by a current of purified air any amount of required heat, moisture, or medicine to the lower animals, and from them their exhalations, I submitted at the last meeting of the Highland and Agricultural Society of Scotland my proposal to the test of the judges, and had the satisfaction of being by them awarded the Society's medal. Encouraged by this mark of approval of my efforts, I have built an addition to my house, so that one room, in particular, may be placed at the service of the Medical Profession, to test, by actual experiments on climate, the power of pure fresh air, chemically pure water, heat, light, and exercise on the human system. Through this room a general current of air passes and commingles, consisting of a purified and warmed current across the entire floor, rising to meet a descending cooler and purified current from the entire ceiling; these, having intermingled, support respiration, and then pass, by a ventilating shaft, to be burned in the fire. After thus supporting combustion, the products pass into the chimney. Into this general current I can at will diffuse, by a branch circulation, a second current, which, having passed through a solution of any medicine, joins the main current, and is now inhaled as perfumes are from flowers.

CONCLUSION.

The meetings of the Association were continued to Wednesday, the 9th, the business interspersed with excursions (not over numerous) and the usual games of the philosophers—the red lions offering, of course, their annual wag of tail and fearful rear. At the concluding meeting, presided over by Sir Wm. Thomson, various grants of money for scientific purposes were voted, and Dr. Carpenter, F.R.S., was elected—we state the fact with infinite pleasure—President of the next meeting, to be held at Brighton in 1872.

REPORT OF THE POOR-LAW BOARD.—II.

(*Continued from page* 197.)

TURNING to that portion of the report which relates to the sick, we find that even up to the date of the Report much progress had been made in providing additional Infirmary accommodation. This has enabled effect to be given to one of the principal objects of the Legislature in passing the Metropolitan Poor Act, 1867—namely, to secure the treatment of the sick and infirm in buildings and under control entirely distinct from the rest of the poor. The new wards provided with this view have, moreover, facilitated the arrangements for relieving the crowded state of certain of the workhouses, and have thus enabled the workhouse test to be more rigidly carried out. The adoption of this test is further encouraged by the induce-

ments which the recent Metropolitan Poor Amendment Act offers to boards of guardians to refuse out-relief, and to suggest as an alternative resort to the workhouse. Under the provisions of that Act the guardians can claim to be repaid from the Metropolitan Common Poor Fund a sum of 5d. per head per day in respect of every adult pauper maintained in the workhouse, provided that the building be not crowded beyond its limit of proper capacity as certified by the Poor-law Board. By this arrangement the granting of out-relief is discouraged, whilst all temptation to overcrowding is withdrawn.

At the date of the report additional buildings had been completed and occupied in the following places—viz., Bethnal-green Parish, Hackney Union, Hampstead Parish, Islington Parish, Paddington Parish, Strand Union, Wandsworth and Clapham Union, and Woolwich Union. In Camberwell, St. Luke (Chelsea), Fulham Union, St. George-in-the-East, Kensington, Lambeth, Poplar Union, Shoreditch, Westminster Union, and Whitechapel Union, arrangements were in progress, or plans actually in course of execution, for additional infirmary and other accommodation.

It will be remembered that a fierce and angry controversy raged in the parish of St. Pancras on the question as to whether the new Infirmary erected at Highgate for that parish was or was not needed. The difficulty has been solved by combining the Strand and Westminster Unions, and the parishes of St. Pancras and St. Giles-in-the-Fields and St. George, Bloomsbury, into the Central London Sick Asylum District. The managers of that district then purchased the Highgate Infirmary, and it has thus been utilised for the benefit of the other places named above, as well as for that of St. Pancras. It is now in full working order, and affords beds for 523 pauper patients.

The Sick Asylum for the Poplar and Stepney Unions is spoken of in the report as being nearly ready for occupation, and, as we have already announced, it is now in use.

Additional accommodation has also been obtained in the metropolitan workhouses by the removal of the imbecile inmates to the asylums which have been provided at Leavesden and Caterham by the managers of the Metropolitan Asylum District. The number of inmates in those Asylums on May 12 was as follows:—At Leavesden, 1594—viz., 715 males and 879 females; at Caterham, 1364—viz., 543 males and 821 females. The total number of inmates for which the metropolitan workhouses have been certified is 27,140.

In determining the numbers for which both the new and the old buildings should be certified, the Poor-law Board have adopted, as regards sleeping-rooms, the following scale, which will be recognised as that of the "Cubic Space Committee":—

Class of Inmates.	Amount of Space in Dormitories.
Sick	850 cubic feet.
Lying-in women	1200 ,, ,,
Sick cases of an unusually offensive character	1200 ,, ,,
Infirm persons occupying the same room day and night	700 ,, ,,
Infirm persons able to leave their dormitories during the day	500 ,, ,,
Healthy persons	300 ,, ,,

This scale has, however, been departed from in cases where modification was required, owing to the peculiar construction of the wards.

It is evident that recent Poor-law Legislation—the outcome of the public demands on behalf of the sick poor—has already borne abundant fruit in the shape of bricks and mortar, building contracts, and pavilion-planned infirmaries. Whether the result will be commensurate with the cost, it is of course too early to anticipate; nor does the Report before us attempt to argue the point. But, be that as it may, there can be no question that, whether our efforts result in failure or in success, we shall have at least the satisfaction of knowing that we have not failed for lack of readiness to spend money.

(*To be continued.*)

THE SANITARY COMMISSION AND THE CHOLERA IN INDIA.—The Sanitary Commission, without giving a decided opinion, continues to discountenance the theory that cholera is spread either by tainted water or human intercourse, and to lean to Dr. Bryden's view of the disease being borne on the air, while, however, distinctly disclaiming everything like partisanship, and proposing merely to give a fair and judicial summing-up of the evidence of the year.

ENGLISH HOSPITAL AT METZ.

DECEMBER, 1870; JANUARY AND FEBRUARY, 1871.

(*From a Correspondent.*)

DR. WOODHAM WEBB undertook, on December 7, 1870, the charge of a part of the Caserne du Génie at Metz as a Hospital for wounded and sick French soldiers. He had then, as assistants, Mr. Crookshank and myself, all of us forming part of Dr. Frank's staff, the Metz Hospital being a branch of his ambulance, of which the head quarters were at Epernay.

The Caserne du Génie is a large building, consisting of a central pavilion and two wings. The whole of it had been used as a Hospital since the middle of August. The central pavilion was handed over to us. It contained, when we took possession, about 200 men, a larger number than it could conveniently accommodate. Of this number, about forty were convalescent and awaiting their turn to be sent home. In a short time our number became reduced by evacuations and deaths to 150, at which it remained till our giving it up. As vacancies occurred, Dr. Webb was allowed to fill them by selecting cases from some other temporary Hospitals in Metz, so that we had a succession of severe and interesting cases.

A few days after our arrival Mr. Fosbroke was added to the staff, and subsequently Mr. Walker.

The pavilion contained three large rooms, capable of accommodating thirty-five patients each, and six smaller rooms. The large rooms were lighted by several windows on both sides; the smaller rooms had windows on one side only; all were tolerably lofty.

The sewage system was exceedingly simple: large open tubs were placed on each landing, into which the urine and fæces from the neighbouring wards were put. The tubs were emptied once a day. We were anxious to alter this, chiefly on account of its appearance, but could not succeed in getting workmen to put up closets. By the help of disinfectants we never had any bad smell. A disinfectant which we found very convenient for the tubs was "Mudie's." It is a powder, consisting chiefly, I believe, of sulphate of iron.

Our wounded patients had nearly all received their wounds in the three days' fighting near Metz in August. The sick were suffering from debility after typhoid fever and from dysentery. All had gone through the miseries which a long siege must bring to Hospital patients—little and bad food, little or no wine, and the want of proper attention, necessitated by the mass of wounded thrown on the hands of the Medical Intendance. As soon as we took over the place we had the floors thoroughly scoured and the walls whitewashed. Carbolic acid was used freely.

In the nursing we were helped by two English ladies, who had been engaged in that work through the war. Each of them had the charge of a small ward. The remainder of the nursing, storekeeping, etc., was undertaken by the sisters of the Convent of St. Chrétienne, which is only a few minutes' walk from the Caserne. These sisters are, in ordinary times, occupied in teaching, but since the fighting in August have turned their hands to nursing. We found them most efficient nurses, and, although the English system of treatment and dressing differs in many respects from the French, they fell into our way very readily. Their strict system of discipline is most conducive to the good working of such an undertaking, and to their constant and untiring attendance on the patients we must attribute much of what success we obtained. The rough work was done by military *infirmiers*, who are, as a rule, lazy and troublesome.

Rations of bread, meat, and vegetables were supplied by the German authorities. We received from the depôt of the English Society, at Metz, a large supply of Liebig's extract, preserved meat and vegetables, concentrated soup, etc. We put the majority of our patients on a more liberal diet than they had had before, and allowed a good quantity of wine, under which treatment those who were not too far gone improved.

Owing to the press of work at the beginning, it was impossible to keep accurate notes of many individual cases, so that I can only give general results of the great number of cases. Of the Surgical cases a large number were gunshot fractures of limbs, which had united more or less firmly, with sinuses leading down to dead bone. These, as well as most of the

other cases, were complicated with bedsores. After giving them two or three weeks of improved diet, these cases were treated according to the condition of the parts. Seven were amputated, of which four had completely recovered before we left, two died, and one had not completely recovered. In less severe cases the sinuses were syringed out daily, and frequently examined, incisions for the removal of loose fragments of dead bone or for the better examination of the parts being made when necessary. Several of these cases recovered completely; others were in a fair way to recovery with time.

There were also a number of cases of long and deep sinuses caused by traversing gunshot wounds of the thigh and buttock without injury to the bone. These cases were frequently complicated by abscesses forming in the neighbourhood of the sinuses. In such cases the sinuses were often kept open by the presence of a piece of cloth which had been carried in with the bullet and had remained in when the bullet had passed out or been extracted. Bits of clothing are extremely difficult to find, and cause as much or more irritation than the bullet itself. These cases were treated by laying open, when possible, the sinuses. About half a dozen cases of hospital gangrene broke out in the Hospital; a great many more were sent to us with the cases which came almost daily from other Hospitals. We treated them with strong carbolised oil (one to six and one to ten), with a solution of chloride of zinc (gr. xxx. ad. ℥j.) and with a strong solution of sulphurous acid. All of these methods checked the progress of the disease at once. The French Surgeons treated some with the actual cautery, others with a strong solution of citric acid, with good success.

The large suppurating surfaces left by the separation of the sloughs we treated with a solution of sulphurous acid, which promoted rapid healing.

REVIEWS.

A Manual of the Laws affecting Medical Men. By Robert George Glenn, LL.B., late Scholar of Magdalene College, Cambridge, of the Inner Temple, Esquire, Barrister-at-law. London: J. and A. Churchill.

We must confess to having felt startled and somewhat dismayed when this large octavo volume of 460 pages first came into our hands. We had not thought that such a tome could be needed to give us "the laws affecting Medical men" in their Professional capacity. But we had not expected so full and complete an account of all the laws affecting us in all our relations; in our student-life as well as our life as full-blown members of the Profession. Mr. Glenn has done his work thoroughly and well. The first hundred pages (nearly) of his book are devoted to the laws and regulations of the Licensing and Qualifying Bodies, the Royal Colleges, Universities, etc., of the three divisions of the kingdom; and he also gives a brief history of each College, Faculty, and Society. He also describes the General Medical Council, its composition, duties, and laws; the laws and regulations of registration; and the powers of the Council over the Licensing and Qualifying Bodies. Chapter V. is devoted to the "Offices held by Medical Men," and is divided into eighteen sections, each of which treats of a distinct office, as Surgeon in the army, in the navy, in passenger ships, in merchant ships; Medical inspectors of various kinds, workhouse and parish Medical officer, public vaccinator, Medical Officer of Health, and so on; and under each head will be found all details respecting appointment, pay, tenure of office, duties and rights, powers, etc. Chapter VI. is on the "Rights and Privileges of Medical Men," and has sections on recovery of charges, actions for defamation, privileged communications, protection from unregistered and unqualified Practitioners, exemptions, and on "The Study and Practice of Anatomy." Chapter VII., "On the Duties and Liabilities of Medical Men," treats of negligence and malpraxis, punishment of abuses, duties of Medical men as witnesses, of the registration of births and deaths, the treatment of lunatics and the management of private lunatic asylums, the validity of gifts from, and contracts made with, patients, and of the regulations respecting the sale of poisons. In Chapter VIII. we have fully and minutely set out "The Law affecting Medical Men in their relation with their Partners, Apprentices, and Assistants." A chapter is given, also, to the "Registration of Pharmaceutical Chemists, Chemists, and, Druggists." And last, though certainly not least, the appendix contains an "Essay on Medical Etiquette," by Dr. A. Carpenter. We have thus given a sort of table of contents of the book as really the best, and, with the space at our command, almost the only, way of showing its value, and the great use it may constantly be to the practising Medical man. We need not point out the great convenience of having the existing law on all the subjects and matters above mentioned brought together for us, and set out by a legal authority. Mr. Glenn's style is clear and good, and his language as simple and free from technicalities as it well can be, so that the non-legal mind may easily, we should think, get a clear and definite idea of his meaning. But, of course, it must not be expected, to use his own words, that his book will, "on every occasion, obviate the necessity for consultation with a lawyer." Dr. Carpenter's essay on Medical etiquette is a valuable and very useful addition to the work. He observes that his subject "divides itself into three principal heads:—

"1. How to get into practice without lowering the dignity of the Profession.

"2. The conduct to be observed in holding intercourse with members of the same Profession, especially in the matter of consultations.

"3. How to hold intercourse with the public so as to avoid the appearance of quackery."

Under all these heads Dr. Carpenter gives sound and good advice, and all Medical men may read his essay with profit; while to young Practitioners it will be of special use in helping them to steer clear of the many shoals, quicksands, and rocks that beset their early course.

We will only observe further that Mr. Glenn has taken unusual pains to provide that any and every subject of which he has treated can be easily referred to. Besides a copious and well-arranged index, he has given a "Table of Cases," a "Table of Statutes," a "Chronological Index to the principal Statutes relating to, or directly affecting, Members of the Medical Profession, including Chemists and Druggists," and "An Alphabetical List of the Principal Authorities on Medical Jurisprudence." And in the appendix will also be found, "Plain Instructions as to the Execution and Attestation of Wills," and a set of "Forms" of the legal instruments which Medical men may have need of, such as a "Deed of Co-partnership between two Medical Men," an "Agreement for Sale and Purchase of a Practice," an "Agreement between a Medical Man and an Assistant," a "Contract between Guardians and Public Vaccinators," and so on.

It appears to us that Mr. Glenn has ably and diligently carried out a very useful and valuable intention.

GENERAL CORRESPONDENCE.

HOSPITAL NURSING.

[To the Editor of the Medical Times and Gazette.]

Sir,—In a certain small Hospital where—Figaro here! Figaro there!—it is my lot to be House-Surgeon, Clinical Clerk, Accoucheur, Secretary, and Physician-Extraordinary, amongst heart-breaking difficulties to contend with, the inability to retain good nurses brings down one's grey hairs with sorrow to the grave. Old or young, repulsive or attractive, no sooner is a woman found useful than she falls ill, inclines to the bottle, retires disgusted with the work, or else goes in for flirtation, culminating in pregnancy or marriage—the latter condition of minor secondary importance. Long ago we had a one-eyed pock-marked treasure, a most attentive old lady without money in the savings bank, but she even fascinated a drunken dragoon, and, as soldiers say, her "knapsack was packed."

On the principle of the waiter who employed his leisure waiting elsewhere, I ran down the other day to Aldershot to pick up a few wrinkles. There a military female Hospital succeeds admirably. The nursing is conducted on the "sister system" by four women, who have worked harmoniously together nearly five years, without falling sick or taking a lengthened holiday. During this time 1327 cases of parturition, and 331 of ordinary disease were treated, as well as the cooking provided for 872 infectious cases. In addition to food, beer, and washing, the "sister" in charge and the midwife each receive two shillings, the nurse and cook eighteenpence a day. Taking it turn about to sit up at night when there are bad cases, they are willing and competent to fulfil each other's duties, and although charwomen are employed, the head "sister" would not refuse to scrub the floor in an emergency. A word for

the Medical officer, the key-stone of the arch. He has "done the State some service," and nobly earns his regimental pay.

What with the horrors of the Commune, female agitators, and girls of the period, the fair sex latterly have lost ground. Still, instances of Christian self-denial and of heavenly charity are constantly found. For instance, the quiet, unostentatious good done by the "sister system" in London alone shows how "divine a thing a woman may be made." Many an aching heart, many a sorrow that no excitement of balls, everlasting gaiety, and (not to mince the matter) of drink could alleviate, finds rest and comfort in thus following the Divine footsteps in relieving others afflicted. Besides, the occupation at times must be far more congenial than being a companion to a nigger-driving old lady, or, when suffering from neuralgia, to live by teaching hopeless children. There must be plenty of old maids in the world. Although a dog and a garden afford average Hobsonian contentment, a man happily married to a nice woman with a little money invested in Indian railways will ever be the envy of a

POVERTY-STRICKEN OLD BACHELOR.

LEGAL INTELLIGENCE.

AN EXTRAORDINARY REPORT OF THE LUNACY COMMISSIONERS.

A VERY extraordinary discovery has recently been made by the Lunacy Commissioners of a wealthy, educated man, once an officer in the army, who some years ago took lodgings at an hotel, and was eventually found by the Commissioners to be immured in a dark room, in a condition too revolting to describe. One symptom of insanity appears to have been an idea fixed upon his mind that he could not rescue himself from his position. He was at once removed, by order of the Commissioners, to a lunatic asylum. He at that time presented quite an inhuman appearance, but, after some months' detention in the asylum, was released, as the Lords Justices had directed him to be restored to the full management and control of his property, which was very considerable, he being tenant for life of large landed estates in this country and the colonies. He has also a life interest in personalty to the value of over £100,000, and a mansion at the West-end of London, which he had verbally given to his aunt. He passed seven years at the hotel in question, and it has been ascertained that at first he paid two and a half guineas a week for his rooms—a not exorbitant sum; but the charge was raised from time to time to £200 and £300 a year, besides £180 for board, consisting of two frugal meals.

The Commissioners report that in 1858 he informed his aunt, who paid him a visit at the hotel, that "life was a burden to him," and he deplored his possession of so much property. His habits were then those of a gentleman, and he was extremely cleanly in his person. In 1859 he suddenly went to Germany, but shortly returned to the hotel, and ceased to hold any communication with his relatives. After 1863 no one was admitted to his room but his agent and the manager of the hotel. His aunt wrote to him on several occasions up to the spring of 1867, but never received any reply. She also went to the hotel once a year, but could never obtain an interview. Her last visit was in April, 1870. From 1860 the supposed lunatic's agent had charge of about seventy horses, which were never used, besides thirty carriages, likewise never used. No accounts were found by the Commissioners to have been rendered by the agent, though he had the management of farms, houses, horses, etc.

Here the matter is left by the Lunacy Commissioners. If this gentleman were really not insane, his eccentricity must have approached very near to insanity, and there is at least grave suspicion of undue influences brought to bear upon an unbalanced mind; but nothing can excuse the conduct of those who connived at and profited by his prolonged detention at the hotel, and who perpetuated the horrors and misery, even though self-inflicted, in the midst of which this unhappy man was found.

SANITARY MEASURES AT CHATHAM GARRISON.—A committee of officers are very vigilantly carrying out sanitary measures. They see that all refuse is promptly cleared away, the drains daily flushed, and chloride of lime freely used wherever necessary. The barracks have now an ample supply of excellent water furnished by the water company under a contract with the Government.

OBITUARY.

ARTHUR MARTIN A'BECKETT, F.R.C.S.E.

The sudden death of that able and valued Practitioner, Mr. A. M. A'Beckett, has caused considerable grief and universal regret. Among all classes of society his loss will be felt, for it was not only among his Professional brethren he was esteemed, but his friendship, zeal, and activity extended among all others, when opportunities offered where good example could be shown, whether in the cause of benevolence, temperance, or in charitable actions. The following quotation may be applied to him:—

> "Lives of great men all remind us
> We can make our lives sublime,
> And, departing, leave behind us
> Footprints in the sands of Time."

He was impressed with the characteristics of benevolence in its highest form, and morality in its strictest sense. He passed his existence in carrying out the two great precepts of the founder of the Christian faith, in honouring his Maker and loving his neighbour as himself.

Mr. A'Beckett was born in Golden-square, London, in 1812, and, after serving the usual term of apprenticeship, became a student in Medicine of the London University in 1834. After the usual course of study, during which he obtained prizes in that University, he became a Licentiate of the Apothecaries' Company in 1835, and passed his examination as a Member of the Royal College of Surgeons on March 9, 1838, and became a Fellow of the same College on December 13, 1855. He served as Staff Surgeon in the British Legion in Spain from 1835 to 1837, on the staff of Sir De Lacy Evans, and received the order of a Knight of San Ferdinand, also an order for distinguished conduct on the field of battle, and another cross and gold medal for the battles of San Sebastian and Irun. How much his conduct, both Professional and otherwise, was appreciated during his service in Spain, is known from the following extracts from letters sent to him by Sir De Lacy Evans and Mr. Rutherford Alcock (now Sir R. Alcock, K.C.B., Her Majesty's Envoy Extraordinary and Minister Plenipotentiary at Pekin, China, and previously her Majesty's Ambassador at Japan). Sir De Lacy Evans says, in a letter dated June 19, 1838:—"It is with the greatest pleasure that I offer you the expression of my entire and very high satisfaction with your conduct during the two years of our service in Spain, both as a gentleman and member of our society and as a Medical officer. My own knowledge of your conduct, acting, as you were, so immediately under my observation, together with the uniformly strong and gratifying reports to me by your superiors of the useful and skilful assistance they derived from you, have, I assure you, impressed me with a sincere interest in your future happiness, prosperity, and Professional advancement. Your exertions in our large Hospitals in Spain, as Staff Surgeon, have given advantages, in point of experience, of a various description, which few, I believe, at your age have possessed. I have every reason to believe that you fully profited by these rare opportunities."

In the letter from Mr. Rutherford Alcock, late Deputy Inspector-General of Hospitals, British Legion, Spain, dated June 18, 1838, he says:—"I must not allow you to embark for another land without conveying to you not only my best wishes for your prosperity, but my conviction that you cannot fail to attain success in the practice of your Profession. In the service of Spain, where, for two years, you were constantly under my observation in the field, and in the Hospitals, your gallantry and intelligence in the first, and uniform zeal and ability in the last, were too obvious to be either overlooked or forgotten. When the Royal Military Order of San Fernando was conferred upon you, I considered it due to you, not less for your exertions and services under fire, than for the more painful, trying, and important duties which you so conscientiously discharged in the wards of our Hospitals in Vittoria and San Sebastian. I have shared the same quarters with you, slept in the same bivouac, and watched you and worked with you among sick and wounded. In all these various situations your conduct as a gentleman, your skill and humanity as a Surgeon, and your ready compliance as a soldier with all instructions, however hazardous or trying the execution, makes me regret that a land so distant should render our meeting again for many years improbable."

He embarked from England for Sydney, New South Wales, in June, 1838, to practise his Profession in this colony, and

how well by his indefatigable exertions, zeal, and high Professional knowledge he succeeded in obtaining, and steadfastly maintaining, a high position, and an extensive practice in the colony, is well known. During a residence of upwards of thirty years in Sydney, he twice visited Europe, the last time with the intention of retiring altogether from his Profession with a competence, but heavy losses from money invested in the colony by failure of companies, compelled him to return to New South Wales in 1865, and recommence the practice of his Profession, previous to which he visited and studied under some of the most distinguished of the Professors of Paris to observe the latest improvements and suggestions offered in Medical and Surgical practice in the Hospitals of that city. He was one of the first members of the Legislative Council of New South Wales, for several years one of the Surgeons of the Benevolent Asylum, and, previous to his last visit to Europe, an Examiner of the Medical Faculty of the University of Sydney, and a trustee of the Australian Museum. He was a trustee of the Sydney Grammar School, and a Fellow of the Royal Geographical Society of London. He was a brother to the late Gilbert A'Beckett, one of the early contributors to *Punch*; to the late Sir William A'Beckett, Chief Justice of Victoria; and the Hon. Thomas A'Beckett, of Melbourne. In concluding this brief sketch, we will append the notice of Mr. A'Beckett's death, as published in one of the Sydney journals, as follows:—

"The death of the late Arthur Martin A'Beckett is a great loss to the Medical Profession, as well as to the community at large. As a Medical Practitioner he has long been favourably known in Sydney, and his skill and ability in the treatment of disease have always been held in the very highest estimation by his brother Practitioners as well as by the public. But skill and ability were not the only qualifications of our departed friend. The best qualities of head and heart were his. Sterling honesty and outspoken truthfulness were his great characteristics. Honest and honourable himself, he was the fearless and unflinching opponent of every form of dishonest and dishonourable practice in others. To every species of imposture he was a sworn foe. His aim ever was to render the Profession which he practised worthy of the respect and esteem of the world, and no line of conduct met with his approval which was not in accordance with this end. Such men as Mr. A'Beckett we can badly afford to lose."

PROFESSOR FREDERIK HOLST, M.D., OF CHRISTIANIA.

In our impression of June 17 we announced the death of this eminent Physician, which took place on the 4th of the same month, in the 80th year of his age. From an address delivered by the President of the Norwegian Medical Society, at a meeting of that body held on June 7, we learn that Frederik Holst was born August 14, 1791, at Holmestrand. Having received a preliminary education at the Cathedral School, Christiania, he matriculated as a Medical student in the University of Copenhagen on July 29, 1815. Whilst resident in the last-named city he attended the *clinique* at the Frederiks-Hospital. Early in 1816 he was admitted Licentiate in Medicine of the Norwegian University; and on June 18, 1817, he was the first to receive the degree of Doctor in the same Faculty in that then recently founded institution. His thesis on this occasion was a dissertation on the disease called "Radesyge." The following year Dr. Holst was nominated to the post of Medical Officer of Health to the city of Christiania, and at the same time gave prelections on osteology and the science of bandaging. During the years 1819, 1820, and 1821 he travelled at the expense of the State through Denmark, Germany, France, Great Britain, and Ireland for the purpose of studying subjects relating to Medical police, the poor-law, prisons, and lunatic asylums. In 1823 he was appointed Member of the Medical Faculty, and shortly afterwards he was nominated Professor of Medicine, the functions of which station he continued to discharge for a period of forty-one years. He lectured at the University on Pharmacentics, Toxicology, and State Medicine, and he founded the Pharmacentical Museum in connexion therewith.

The results of his experience of prisons, acquired during his three years' travels, were published in 1823, under the title of "Reflections on the more Modern British Prisons, especially with respect to the Necessity for Improvements in Prison Discipline in Norway."

Dr. Holst now rapidly rose to a high position in his Profession, and in due time received public recognition of his abilities and untiring industry. In 1832 he was created Knight of the Order of Vasa, in 1838 Knight of the Order of the North Star, in 1847 Knight of the Order of St. Olaf, and in 1865 Commander of the same Order. No less than sixteen scientific societies claimed him as a member or honorary member, while he was one of the founders of the Norwegian Medical Society. In 1856 he established a fund for discharged prisoners, and in 1859 one for distressed Norwegian Physicians and their widows. Professor Holst possessed considerable literary abilities, and as far back as 1826 started the first Medical journal ever published in Norway, under the name of *Eyr*, which he continued to edit in the face of great difficulties during its course of eleven years. He afterwards became, and continued to be for seven years, one of the editors of the *Norsk Magazin for Lægevidenskaben*, a journal first published in 1840. As the President well observed, Dr. Holst was one of the most zealous members of the Norwegian Medical Society, and his interest in its proceedings remained undiminished when his bodily health no longer permitted him to take part in its meetings, as a letter to the Society dictated by him not many days before his death testifies. This letter concludes with words to the following effect:—"Now, with the feeling that my course in this life will probably soon be ended, I cannot refrain from conveying to the Society, most of whose members have been my pupils, my heartfelt farewell and thanks for its many tokens of regard towards me; and I invoke a blessing on its future labours in the cause of science and humanity."

MEDICAL NEWS.

Apothecaries' Hall.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, August 17, 1871:—

Allen, Marcus Henry, Regency-square, Brighton.
Birch, Robert, Lichfield.
Bonser, John Hanbury, Sutton-in-Ashfield.
Butler, Francis William, Spring-grove House, Peckham.
Hosford, Joseph Alexander, Cumberland street, Barnsbury.
Sarjant, Josiah John, Millwall, Poplar.
Steele, Edward Henry, Dorchester.

The following gentlemen also on the same day passed their first Professional examination:—

Dixon, Thomas James, Guy's Hospital.
Murphy, Robert William, Guy's Hospital.
Pitts, Robert Zaccheus, Middlesex Hospital.
Stoney, Percy Butler, St. Bartholomew's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Morgan, E. R., M.R.C.S., L.S.A.—House-Surgeon to the Royal Free Hospital, *vice* A. Thomas, L.R.C.S., resigned.

Stokes, William Thornley, M.D., L.R.C.S.I., etc., Demonstrator of Anatomy in the Royal College of Surgeons—Surgeon to the City of Dublin Hospital, *vice* Dr. Purser transferred to the Medical Department.

MILITARY APPOINTMENTS.

3rd Foot.—Staff Surgeon William Collis, to be Surgeon, *vice* Thomas Teevan, appointed to the 30th Foot.

26th Foot.—Staff Assistant-Surgeon William Carpenter, M.D., to be Assistant-Surgeon, *vice* John Gray, M.D., appointed to the Staff.

30th Foot.—Surgeon Thomas Teevan, from the 3rd Foot, to be Surgeon, *vice* Alfred Hooper, appointed to the Staff.

44th Foot.—Staff Assistant-Surgeon Thomas Moore Kirkwood, to be Assistant-Surgeon.

Medical Department.—Surgeon Alfred Hooper, from the 30th Foot, to be Staff-Surgeon, *vice* William Collis, appointed to the 3rd Foot; Assistant-Surgeon John Gray, M.D., from the 26th Foot, to be Staff Assistant-Surgeon, *vice* William Carpenter, M.D., appointed to the 26th Foot.

Bengal Army.—Medical Officers.—To be Surgeons-Major, Surgeons John Barclay Scriven and Joseph Walter Raleigh Ameshury. To be Surgeons, Assistant-Surgeons William Edward Allen, Rivers Mantell, M.B., Edwin Clement Bensley, James Fawens, M.D., Thomas William Sheppard, John Ellis, M.B., Edrie Selous, Charles Peter Costello, James John Durant, Ferdinand Odevaine, George Grant, M.B., George Cochet Chesnaye, John Duncan, M.B., Edward Ord Tandy, Francis Parsons, Frederick George Constant, M.D., James Hunt Condon, William Roe Hooper, Mark Henry Lackersteen, M.D., and Henry Seymour Smith.

Madras Army.—To be Surgeon-Majors, Surgeons John Thomas Williams, Alexander Adam Renton, and John Anderson Cox, M.D. To be Surgeons, Assistant-Surgeons John Bilderbeck, Robert Edmund Pearse, George Dalziel Riddell, Æneas M'Leod Ross, and Joseph Dougall.

BIRTHS.

DIPLOCK.—On August 16, at Ranelagh House, Fulham, the wife of Thomas Bramah Diplock, M.D., of a son.

HEARNDEN.—On August 21, at Down House, Sutton, Surrey, the wife of W. A. Hearnden, M.D., of a daughter.

HYDE.—On July 2, at Poonamallee, Madras, the wife of John Martin Hyde, Staff Surgeon, of a son.

MATTHEW.—On August 18, at 20, Warwick-street, Regent-street, W., the wife of Charles W. Matthew, M.B., of a daughter.

MORIARTY.—On August 22, at the Control Barracks, Woolwich, the wife of Dr. Moriarty, of a daughter.

SPAULL.—On August 19, at 2, Vale-place, West Kensington, the wife of B. E. Spaull, Surgeon, of a son.

MARRIAGES.

BARON—JONES.—On August 17, at Bromyard, Herefordshire, Thomas Baron, Surgeon, Nantwich, to Eleanor, only daughter of the Rev. J. P. Jones, Independent minister.

BOREHAM—SIMPSON.—On August 16, at St. John's, Paddington, William Chalklen, eldest son of William Wakeling Boreham, J.P., of Haverhill, to Mary Catherine Frances (Fannie), only daughter of William Simpson, M.R.C.S., of the same place.

BUTLER—SMITH.—On August 22, at St. John's, Woolwich, William Harris Butler, L.R.C.P. Edin., M.R.C.S. Eng., L.S.A., to Harriet Ann, eldest daughter of Mr. R. Smith, both of Woolwich.

FAIR—DUKE.—On August 22, at Monkstown Church, Alexander William Fair, Esq., 48th Regiment, eldest son of Capt. T. Fair, Kingstown, to Annie, second daughter of Valentine Duke, M.D., Blackrock, Dublin.

GUNTHER—TOMPSON.—On August 15, at St. Mary Magdalen's Church, St. Leonard's-on-Sea, Dr. Theodore Gunther, of Hampton-wick, to Florence Georgina, fourth daughter of the late Arthur Tompson, Esq., of Belton, Suffolk.

KARKEEK—HEARD.—On August 22, at St. Mary's, Truro, Paul Quick Karkeek, Surgeon, The Ferns, Torquay, only surviving son of the late F. W. Karkeek, Esq., of Pentrene, Truro, to Clara, elder daughter of Mr. Heard, Boscawen-street, Truro.

OXLEY—LLOYD.—On August 16, at St. Michael's-in-the-Hamlet, Martin Guy Black Oxley, M.D., to Emma, younger daughter of the late Richard Lloyd, of Grove-park.

RATTON—BELLORD.—On August 22, at St. John's Church, Duncan-terrace, James J. S. Ratton, M.D., Madras Army, to Alice Mary, second daughter of James Bellord, Esq., Barnsbury-street.

SELOUS—MARQUETTI.—On August 22, at the parish church, Finchley, Edric Selous, Surgeon H.M. Indian Service, son of F. L. Selous, Esq., of Wargreave, Bucks, to Caroline Josephine, eldest daughter of J. J. Marquetti, Esq., of St. John's Wood.

YOUNG—TAYLER.—On August 22, at the parish church, Cowden, T. Pallister Young, LL.B., B.A., of 1, Beaufort-gardens, Lewisham High-road, and 29, Mark-lane, to Marion Elizabeth (Minnie), only daughter of Caleb Tayler, M.D., of Lewisham-road and Mapletreuse, Cowden, Kent.

DEATHS.

ADCOCK, JOHN LYDIAT, infant son of John Adcock, M.D., Army Medical Staff, at Sandgate, on August 26, aged four weeks.

CASEY, THOMAS, M.D., at St. Alban's, on August 21, aged 76, having survived his wife three months.

GROSVENOR, EMMELINE PEASHALL, the infant daughter of George Fox Grosvenor, M.D., at 121, Ladbroke-grove, Kensington-park, W., on August 16, aged eight months.

GRYLLS, WILLIAM, M.D., Civil Surgeon, late of Enniskillen Dragoons, at Cocanada, Madras Presidency, on July 1, aged 41.

HACON, ALFRED, only surviving son of the late Richard Hacon, Surgeon, of Aldborough, Suffolk, at Higham Ferrars, Northamptonshire, on August 14, aged 29.

KNOWLES, ESTHER, the beloved wife of Edmund Yalden Knowles, Surgeon, suddenly, at Farnham, Surrey, on August 21, aged 57.

LESLIE, SUSANNA, relict of Patrick Leslie, M.D., at Wilton-place, on August 20, aged 89.

MILLAR, CHRISTIANA DUNCANSON DUNCAN, wife of John Millar, M.D., F.R.C.P.E., at 48, Albany-street, Edinburgh, on August 19, deeply regretted.

PEARL, Mrs., the wife of Dr. Pearl, at Hall Court, Ripe, Sussex, on August 20.

THOMAS, DAVID JOHN, M.D., F.R.C.S.E., formerly of Llwyn-y-Berllan, Carmarthenshire, at 129, Collins-street East, Melbourne, Australia, on June 1, aged 58.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

BOURNEMOUTH GENERAL DISPENSARY.—Resident Surgeon; must have both Medical and Surgical qualifications and be registered. Applications and testimonials to B. A. Rugg, Esq., for the President of the Dispensary, on or before August 28.

BRADFORD INFIRMARY AND DISPENSARY.—Physician; must be a Graduate in Medicine of one of the Universities of the United Kingdom, or a Fellow or Member of one of the Colleges of Physicians. Applications and testimonials to Mr. C. Woodcock, Bradford, on or before August 30.

BRISTOL ROYAL INFIRMARY.—Dispenser; must be competent to take entire charge of the Dispensary Department. Applications and testimonials to the Committee, on or before September 9.

CHESTER GENERAL INFIRMARY.—Visiting Surgeon; must have both Medical and Surgical qualifications. Applications and testimonials to the "Chairman of the Board of Management," on or before August 28.

CHRISTCHURCH UNION.—Medical Officer for the Eastern District. Candidates must be properly qualified and registered. Applications and testimonials to Mr. Henry Pain, Clerk, on or before September 4. Election the same day.

COVENTRY PROVIDENT DISPENSARY.—Surgeon; must be a Member of one of the Colleges of Surgeons of London, Dublin, Edinburgh, or Glasgow, and must hold in addition a Licence from one of the Royal Colleges of Physicians, or from the Society of Apothecaries. Applications and testimonials to the "Honorary Secretary," on or before August 31.

GOWER UNION (WESTERN DISTRICT).—Medical Officer for this district, including the Workhouse. Candidates must have the qualifications prescribed by the General Orders of the Poor-law Board. Applications and testimonials to the Clerk, Quay-parade, Swansea, on or before September 9. Election on the 12th.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, BROMPTON, S.W.—Dental Surgeon. Applications and testimonials to the Secretary.

ISLINGTON, VESTRY OF ST. MARY.—Medical Officer of Health and Analyst. Candidates must be duly qualified and registered. Applications and testimonials to Mr. John Layton, Vestry Clerk, on or before September 18. Further particulars may be obtained at the Vestry Office.

LEXDEN AND WINSTREE UNION.—Medical Officer for the Eighth District. Candidates must possess the qualifications prescribed by the General Orders of the Poor-law Board. Applications and testimonials to Mr. W. Howard, Clerk to the Board, on or before September 5. Election on the 6th.

NORFOLK AND NORWICH HOSPITAL, NORWICH.—House-Surgeon; must have both Medical and Surgical qualifications. Applications and testimonials to Mr. T. R. Tallack, on or before September 8. Election on September 16.

PARISH OF UNST, SHETLAND.—Medical Officer. Applications and testimonials to Mr. White, Inspector of the Poor.

QUEEN'S COLLEGE, BIRMINGHAM.—Medical Tutor and Joint Demonstrator of Anatomy. Applications and testimonials to the Secretary on or before August 31.

UNIVERSITY OF DURHAM COLLEGE OF MEDICINE, NEWCASTLE-ON-TYNE.—Medical Tutor. Applications and testimonials to Luke Armstrong, Esq., College of Medicine, Newcastle-on-Tyne, on or before August 31. It is particularly requested that no *original* testimonials be sent.

UNION AND PAROCHIAL MEDICAL SERVICE.

⁂ The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Settle Union.—The Settle District is vacant; area 18,496; population 3187; salary £35 per annum. The Horton-in-Ribblesdale District is vacant; area 17,258; population 417; salary £6 per annum. The Workhouse is vacant; salary £18 per annum.

APPOINTMENTS.

Bodmin Union.—Henry G. Curran, L.R.C.S. Ire., L.K.Q. Coll. Phys. Ire., to the Second District.

Chelmsford Union.—Wm. R. Horniblow, L.R.C.P. Edin., M.R.C.S. Eng., L.S.A., to the Second District.

Dewsbury Union.—Edward J. H. Booth, M.R.C.S. Eng., L.S.A., to the Mirfield District.

Farringdon Union.—George H. Maskelyne, M.R.C.S. Eng., L.S.A., to the Buckland District.

Hunslet Union.—Wm. Pogson, M.R.C.S. Eng., L.R.C.P. Edin., to the Fifth District.

Lewes Union.—Walter F. Crosskey, M.D. & M.C. Univ. Glasg., to the New Workhouse, the St. Ann's Workhouse for Children, and the Lower District.

Newbury Union.—George Henry Watts, M.R.C.S. Eng., L.S.A., to the Third District.

Taunton Union.—Walter H. Reed, M.R.C.S. Eng., L.S.A., to the Churchstanton District.

As a fitting memorial to the late Dr. Kelly, it has been decided to erect a Cottage Hospital at Crook, Bishop Auckland, at a cost of £800.

A SPECIAL vote of thanks was given at the meeting of the managing committee of the Children's Hospital, Birmingham, last week, to Dr. Heslop, for "various important improvements made in the Hospital at his cost."

SIR ALEXANDER ARMSTRONG, K.C.B., having completed his annual inspection of the Royal Naval Hospital and the several other naval Medical establishments at Plymouth, has gone to Falmouth to inspect the sick-quarters of the training-ship *Ganges*, at that port, and thence returns to London.

SMALL-POX is prevalent in the city of Waterford. A number of cases have been reported during the last few days.

SMALL-POX AT CHORLTON.—The report to the Chorlton Board of Guardians on Friday last showed that six cases of small-pox had been admitted during the week, which, with thirty-seven cases remaining in the Hospital the previous week, made a total of forty-three patients. Of these, four had been discharged, and one had died who was unvaccinated.

THE deaths in Paris during last week were 828, against 676 in the previous week. There were 31 deaths from cholerine, 55 from diarrhœa, and 1 from cholera. The Government is adopting precautions against cholera, but no serious cause for uneasiness has yet arisen.

The Medical Officer's report of small-pox patients at the Canal-street Hospital, Manchester, showed remaining last week 67 —discharged, 14; remaining, 53. No deaths occurred during the week. The number of unvaccinated children reported during the week was 153. During the same week, by the assistance of the relieving officers, in the house-to-house visitation, 210 unvaccinated children were found, 113 of whom, however, were under three months old.

The Cholera.—On Monday afternoon, the schooner *Progress*, Captain Innes, arrived off Broughty Ferry, Dundee, from Königsberg with a cargo of flax. She was visited by the Sanitary Inspector and the Custom-house officials, who learned that one of the crew, a nephew of the captain, had been seized with cholera on August 5, the day after the vessel had left Königsberg, and had died within twenty-four hours. The vessel then put into Dantzic, where the body was buried, and she afterwards set sail and arrived here yesterday. A telegram intimating the arrival of the vessel, and that cholera had been on board, was immediately transmitted to Dundee. Dr. Pirie left with the first train thereafter for Broughty Ferry, and, in company with the Custom-house officials and the police officials appointed for the purpose, proceeded to the vessel, and made a thorough examination. He learned that the facts reported regarding the death of the nephew of the captain were quite true, but the rest of the crew were all found to be in good health, and none of them had been ill during the voyage excepting the man that had died. The bed- and body-clothes of the deceased had been destroyed immediately after his death, and the roundhouse in which he had lain was thoroughly washed out afterwards. Before leaving the vessel Dr. Pirie disinfected the compartment with carbolic acid. The vessel was then allowed to proceed to Dundee.

Cholera in Germany.—It is officially notified that cholera has appeared at Pillkallen, Oletzko, Lyck, and Insterburg, and for all these districts a sanitary committee is established.

The French Government is adopting precautions against the cholera, but up to the present time no serious cause for uneasiness has arisen.

A decree of the Italian Ministry of the Interior orders sanitary measures for vessels arriving from the sea of Azof.

At the expiration of eight months from the passing of the new Metropolis Water Act, every company shall, when required so to do, furnish "a constant supply of pure and wholesome water sufficient for the domestic purposes of the inhabitants." The water is to be laid on at such pressure as will cause it to reach the top story of the highest houses.

In the week ended August 12, only one death, that of an infant under 12 months of age, was registered in the parish of Clifton, Bristol, showing a rate of mortality of 1·9 per 1000 per annum.

Undertakers and the Reduced Death-rate of Calcutta.—The *Indian Daily News* tells the following sadly amusing story:—"The Chairman of the Justices while out, as usual, inspecting the several divisions of the town, met an undertaker on the Dhurrumtollah-road, and asked him how his business was getting on. 'Very dull,' replied the undertaker, with a sigh, adding, 'we will have to apply to you for compensation, as the drainage and waterworks have done it all.'"

How Physicians are Treated in Egypt.—A horrible occurrence, says the *Egyptian Messenger*, took place last week at Cairo. The wife of a certain Marselli, an Italian, having lost her sight after a long and painful ophthalmia, in which the assiduous care of Dr. Altieri Marrullier was of no avail, the husband conceived the idea of depriving the unsuccessful Physician of his sight. He procured a bottle of sulphuric acid, and, having waylaid the Doctor, threw its contents in his face and in that of his secretary, Mr. Griffith, who accompanied him. Both victims are in great danger of losing the use of their eyes.

Tin Drainage-Tubes.—Dr. Heiberg, writing concerning his experience derived in Professor König's clinic, at Rostock, states that tin tubes form a cheap and admirable substitute for the silvered tubes lately recommended by Professor Hueter. Metal has many advantages over the organic materials of which drainage-tubes are ordinarily made, and those made of tin can easily be pierced with holes or bent to the required angle. They always keep their metallic lustre, and can be cut by a pocket-knife. While introducing the tube Dr. Heiberg passes into it a rounded wooden plug, which projects somewhat, in order to prevent injuries from its cutting edge.—*Centralblatt*, August 5.

Anglo-American Hospital, Naples.—We trust that our Government will interpose and obtain the withdrawal of the peremptory order, received by the managers of this Hospital from the Neapolitan authorities, to close this useful and much-needed institution, which for upwards of thirty years, without let or hindrance, has continued its good work up to the present.

The Hospitals in Russia would appear to be sadly mismanaged if the Hospital at Kertch may be taken as at all typical of such institutions there generally. British subjects have been frequently taken to the Kertch Hospital, and the invariable complaint is—"scarcity of nourishment, bordering on starvation, and an utter want of feeling or sympathy for the sick among the attendants." There is no pharmacy in the Hospital, the *infirmiers* purchasing the medicaments. The high range of mortality in a time of epidemic need excite no wonder when the dirty habits of the people and the mismanagement of the Hospitals are taken into account.

The German Scientific and Medical Association.—The forty-fourth meeting of this body will be held this year at Rostock, during the week September 18 to 24. As the accommodation in so small a town is limited, early application should be made by intending visitors, to the managers, Drs. Thierfelder and Karsten, at Rostock.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Will "An Old Pupil of John Abernethy" favour us with his mode of treating cholera?

G. H. S.—Linacre was the founder of the College of Physicians of London and was its first President. He held that office during the last seven years of his life. He died in 1573, at the age of 63. The first edition of Harvey's "Doctrine of the Circulation of the Blood" was published in 1628.

A Guardian (Hackney), A. B., and others complain that Sir H. M. Beach was incorrect in his statement in the House of Commons respecting the number of persons vaccinated in Hackney. They state that the returns quoted by Sir H. M. Beach extended only to Michaelmas last, and as some 20,000 persons have since been successfully vaccinated in the district, the statistics quoted are calculated to place Hackney in an unfavourable light before the metropolis. We understand the guardians have ordered the publication of a statement in correction of Sir H. M. Beach's mistake.

A Lover of Tea inquires if there is not some mistake in the following extract from the British Consul at Ragusa, Mr. Paton. Mr. Paton says—

"Tea and coffee are the sure and rapid destroyers of the nervous and muscular system, for there is reaction and prostration after the digestion is terminated, and at the very time when all the vital forces are required for the purposes of assimilation, which is just as important as that of digestion."

Under proper regulations, and taken at proper times and in proper quantities, tea and coffee may assist both digestion and assimilation.

Precedence in India.

An Indian Army Surgeon writes:—"When John Company handed over India and its officers to the Queen, all ancient rights and privileges were guaranteed to the honourable John's officers. Rank was, I presume, one of those rights; yet, by a warrant of precedence, published in this country a few days since, I am every day of my life superseded by an officer who is my junior in the service—*i.e.*, a captain of infantry—who, as Deputy Commissioner, takes precedence in his own district above lieutenant-colonels in the army. Giving local rank to Commissioners and Deputy Commissioners is, in reality, analogous to giving them substantive rank, as they are but seldom met except within their own beats. Why should not the Medical officers in civil employ have rank given to them on the same terms as civilians? One half the Medical officers in the Bengal side are in civil employ, and it is but reasonable to expect that those so employed should have better than their military rank accorded to them, if fourth-class educational men are to have a good position in the social scale now laid down. Then, again, Sanitary Commissioners and Inspector-Generals of Gaols supersede men who are in the same Profession and much longer in the service. The Medical officers and engineers have reason to grumble at this new warrant, of which I send you a copy. The following is the relative rank of Medical officers:—Assistant-Surgeon, under six years, as Lieutenant; do., above six years, as Captain; Surgeon, as Major; Surgeon-Major, as Lieutenant-Colonel, but junior to that rank; Deputy Inspector-General of Hospitals, as Lieutenant-Colonel; Inspector-General of Hospitals, as Colonel."

What took away Cholera from Cairo.—B. B. W., writing to the *Times*, says—

"But far above all medicines in the thoughts of the Cairenes was the rise of the Nile, as the supply of sweet water over the surface of the Delta. Many watched for it night and day—it was slow of rising that year. But when the floods came down and swept away the impurities of the land, and brought drinkable water close to every household, then, as anticipated, the cholera king took his departure, and the city gradually regained its usual aspect."

Medical Reform.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—The little world of Medicine has for some time been in a constant state of agitation, striving might and main to reform the education of the Profession. In following the course of this movement, it has exceedingly surprised me to find that, as far as I am aware, no information has ever been given us of the standard which will be demanded. The desire seems to be to force every man to give proof of being well educated. But is there not a delightful vagueness in all this? Are there not fearful rocks ahead? What is, or is not, essential to a good Medical training? Is it not possible that, when the reform is carried—that is to say, when the long talked-of Bill is passed—we shall somewhat resemble Robinson Crusoe and his boat, or the painting in the Vicar of Wakefield? Our work will apparently be accomplished, but we shall be unable to turn it to account, so many the difficulties, so numerous the conflicting opinions. One gentleman of high eminence actually proposed that, before becoming a student, every man should pass an examination at least equal to the London Matriculation; and, some time later, another examination, resembling, as far as one could gather, the Preliminary Scientific. Perhaps this amounted to saying that the London M.B. should be the standard. May I be pardoned for saying his plan was an impossible one. Now, let me not be misunderstood; no man more deplores the great ignorance of many of his *confrères* than I; nor, however, am I venturing to draw up a plan of reform. As a man who has mixed almost more with clergymen and lawyers than with Doctors, I may be considered to be something of an outsider, and thus, perhaps, shall be able to show that the whole question of reform is a most difficult one; let this be said with due deference to the great lights of the Profession.

What is a Doctor's career? One generally involving incessant labour, much night and Sunday work, very little leisure, and very few holidays. As a rule, half our Doctors at least are almost wholly cut off from all cultivated society, and pass their time associating exclusively with the poor. Then look at another drawback—the incessant sale of drugs—for it amounts to nothing else! If a man wishes to avoid this annoyance it becomes almost impossible to get a general practice; or, should he settle down as a consulting Practitioner, ought he not to have a good fortune, and be prepared to wait for years for a success which does not always come? Compare this with the career of a clergyman. If a man of fair ability, there are, for instance, not a few well-paid posts as assistant masters in good schools to reward him, or he can get curacies at from £90 to £150 a year in all parts of the country. In a few years he can rise, and usually does rise, and I have known quite young men, without any influence, obtain incumbentcies. Probably the said clergyman does not earn, in the long run, as much as the Doctor; but there is less difference in this respect than people think, and his receipts are clear, while the Surgeon's have often to be greatly reduced to pay for his drugs, horses, and assistants. The clergyman is received into better society, has infinitely more leisure, associates chiefly with people of education, and leads an incomparably pleasanter life. And do we not all admit that, man for man, the clergy are superior to ourselves—better educated, members of better families, and exercising greater social influence? Could we really raise our standard of education to any marked extent? I think not, for the other professions and trades would then afford higher advantages, and one of three results would and must follow—either, that the employment of unqualified Practitioners would increase, to make up for the deficiency in registered men; or, that assistants would be still more extensively used; or, that the out-patient department of all our Hospitals would become the only refuge for the majority of the poor. The hardships of a Surgeon's lot are, of themselves, enough to keep away any large number of really good, well-educated, refined men, unless the remuneration were made very high; and then the poverty of the working classes, who form three-fourths of the sick, would cut them off from the Doctor, and drive them to chemists and Hospitals.

From what I have seen of Medical students and of the following examinations, I cannot but think that the highest minimum standard at present practicable is the work required for the L.R.C.P. and M.R.C.S. of London; and had all our Practitioners passed these tests there would not be so much to complain of after all.

And now, before drawing this long letter to a close, let me point out an evil which, if continued, will infallibly ruin every plan of reform, however promising, and bring to nought the labours of all our reformers. It is the execrable system of unqualified assistants. With that trades'-unionism too common amongst us, proposals are made that no unqualified person should be permitted to practise for gain, and that a clause to this effect should be inserted in the new Bill; but attend! Surgeons are still to have assistants, for whose services they can charge! We who know what unqualified assistants too often are—how seldom in later life they distinguish themselves in practice, how few the honours they take when they attend a Medical school—must feel the full force of this terrible evil. Raise, if you will, the standard of education, and thus reduce the number of registered Surgeons, and then, to make up, thousands of fresh assistants would be sent forth to earn money for their masters in return for services too often worth nothing at all.

At the present day, when certain diplomas are deservedly sneered at, hundreds of Surgeons—aye, and among them men, to my knowledge, whose names have figured in connexion with the recent movement—have branch practices, attended to not seldom by men far inferior to a respectable chemist's assistant. Such cases I know at this day. And is it not common to find Surgeons who sigh for Medical reform employing unqualified assistants in preference to qualified men?—because, they tell you, the former are cheaper and harder workers. And is it very uncommon for a simple dispensing assistant to be sent to scores of complicated cases? And what more common than that young pupils should be given exclusive charge of serious illnesses? Who, again, has not seen young students left in sole charge of the out-patients of a large Hospital? Who has not known important Infirmaries intrusted to the care, for a week or ten days, of students not too brilliant nor too learned?

And now, finally, we find a Scotch University, in its desire to foster a higher standard of education, after a period of quiescence, about to re-commence its old system of selling its highest degree in Medicine. Such is human consistency! The men who think the ordinary M.R.C.S. an ignorant being have ten thousand reasons to prove why pupils, dispensers, unqualified assistants, and students should in some towns attend to one-third—may I not even say to one-half—of all the sick. In any plan of reform, these crying evils ought to be duly cared for.

I am, &c., An Old University College Man.

"Dyte v. the St. Pancras Guardians" Appeal Fund.

Dr. Bathurst Woodman begs to acknowledge the receipt of the following subscriptions to the fund now being raised for the purpose of carrying on the appeal in the above suit, the history and particulars of which, together with a report of the trial, he will be happy to forward on application:—

	£	s.	d.
W. Morrant Baker, Esq., F.R.C.S., St. Bartholomew's Hospital	1	1	0
Dr. Barnes, Grosvenor-square	1	1	0
Dr. Billing, Grosvenor-gate	1	1	0
F. Gordon Brown, Esq., M.R.C.S., Finsbury-circus	0	10	6
Dr. Andrew Clark, Cavendish-square	2	2	0
George Critchett, Esq., F.R.C.S., Harley-street	2	2	0
T. B. Curling, Esq., F.R.S., Grosvenor-street	2	2	0
Dr. Herbert Davies, Finsbury-square	2	2	0
Dr. Langdon Down, Welbeck-street	2	2	0
Dr. C. R. Drysdale, Southampton-row	1	1	0
Dr. Edmunds, Fitzroy-square	2	2	0
Peter Gowland, Esq., F.R.C.S., Finsbury-square	1	1	0
Dr. Hardwicke, Maida-hill	1	1	0
Jonathan Hutchinson, Esq., F.R.C.S., Finsbury-circus	1	1	0
Dr. Hughlings-Jackson, Bedford-place	1	1	0
Dr. Little, Brook-street	2	2	0
James Luke, Esq., F.R.S., Maidenhead	1	1	0
Dr. Morell-Mackenzie, Weymouth-street	2	2	0
C. F. Maunder, Esq., F.R.C.S., New Broad-street	2	2	0
F. B. Pearse, Esq., F.R.C.S., Haverstock-hill	2	2	0
Walter Rivington, Esq., F.R.C.S., Finsbury-square	1	1	0
Edward Symonds, Esq., Camden-town	2	2	0
James Teevan, Esq., F.R.C.S., Chesham-street	2	2	0
James Watkins, Esq., Gloucester-road	1	1	0
Dr. W. Bathurst Woodman, Christopher-street	1	1	0
A. K.	1	1	0
One Behind the Scenes	1	1	0
A Hater of Injustice	1	1	0
F.R.C.P.	0	10	6

Further subscriptions will be received by Dr. Bathurst Woodman, Hon. Sec., 6, Christopher-street, Finsbury-square, E.C.; or may be paid in to the account of the Fund at the London and Westminster Bank, Lothbury.

"Quick with Child."

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I am well aware of the recorded cases of error in the verdicts of juries composed of matrons, but I have yet to learn that any jury, special or common, male or female, or even purely Medical, is faultless; or, indeed, that any human tribunal is free from error. Dr. Bree himself says, "It is often a most difficult thing to discover whether a woman is with child or not, and eminent and experienced men are sometimes deceived." I was also perfectly aware of the French and American law on the subject, but I was dealing with the English law, and I still contend that it is not open to the grave imputations cast upon it by Dr. Bree. I even suggested the adoption of the principle involved in those laws. Before terminating the present discussion I must remind your readers that I have given my authority for both the law and its mode of operation. Blackstone is neither a mean nor a mediæval authority, albeit he is ignored by Dr. Bree, who affects to expound the law upon his own authority, and in opposition to the ruling of the learned judge. That the law is based upon any such vulgar error as that quickening takes place only after a certain period of gestation I utterly deny. A child may be "alive in the womb" at any period of gestation, and this vitality the law requires to exist at the time of the investigation. Dr. Bree has, however, borrowed his idea from "Taylor's Medical Jurisprudence" (an assertion there made upon no authority whatever, and where a definition of the law is not even attempted—and even if it were would carry with it no weight *per se*, as Dr. Taylor's work, though invaluable as a work on Medical science, is no authority as an exponent of the law, and is never quoted as such in any court of justice). I am no stickler for the law as it is, if it can be amended with effect, but I deny that it is "horrid, murderous, unjust, disgraceful," or based upon any such notion about the period of quickening as has been suggested. If Medical science is not yet sufficiently advanced to discover for certain whether a child is "alive in the womb" or not, by all means let the woman have the benefit of the doubt; and, as I before suggested, let pregnancy alone, and not vitality, be the test. It is much to be deplored that there is no court of appeal in criminal cases, and that erroneous verdicts or doubtful evidence can only be supervised by the Secretary of State; but we are not discussing now a revision of our whole criminal code.

I am, &c., Hugh Weightman.

1, Mitre-court, Temple, August 21.

The following card has been sent us by a subscriber:—

26, Rothbury-villas, Tollington-park, N.

Dr. Reynolds,

Surgeon and Accoucheur.

Advice and medicine during illness, 3s. 6d. per week.

Attendance and medicine during illness, 5s. 6d. per week.

Mr. W. J. Stracey, of Brixton Vicarage, Norwich, says that—"Cases of fever, especially of scarlet-fever, are apt to break out in new-built houses about eight or nine months after the same have been completed. This is said to arise from a decomposition which takes place in the hair used in the mortar or plaster of the walls, through the action of lime. And it does appear to me that, if this is found to be a common occurrence, and very nearly at the very same period after completion, many families, if they were aware of this fact, might be able to remove for some weeks so as exactly to avoid this risk." The moral is, that no house, however new and clean, and perfectly ventilated, is proof against scarlet-fever, if the infection is introduced.

Hackney and Kingsland.—Public opinion has all but universally condemned the proceeding. The "notice" is, as far as we know, the solitary exception.

Begging-Letters.—We would warn our readers against appeals from private sources for help for needy Professional men. In real cases of distress reference will always be allowed to the leading men of the Profession. Private begging-letters cannot be regarded with too much suspicion.

Spiritualistic Ghost Stories.—The *Spiritualist* says—"Spirits have bodies: they have also more senses and powers than ourselves. The lowest spirits live upon the earth, and seem to be chained to the scene of their former crimes; they have also more direct power over common matter, we think, than the higher ones. This is why places where great crimes have been committed are often haunted. Spirits differ in their religious and other opinions; there is no more uniformity on the other side of the grave than on this side." Query: The proof.

Plymouth.—The Plymouth Guardians are in a considerable fix. Mr. Lupton, elected by the Guardians to succeed Mr. May, has declined to accept the appointment. "He felt bound to decline the appointment, being of opinion that he should thus be acting right towards other gentlemen." The Guardians, after a "debate" respecting their late resolution to have three instead of four Surgeons to the union, and after causing a vast amount of ill-feeling and annoyance, have begun to see the error of their ways. It is probable that at the next meeting, looking at the tone of the discussion, the Board will determine on having four Surgeons and four relieving officers.

DREAMS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Can you or any of my Professional brethren tell a remedy or cure for dreaming? I have for many years been a martyr to dreams—some pleasant, some disagreeable. As soon as I fall asleep I am invariably troubled by them, and as a consequence I wake in the morning unrefreshed, languid, and good for nothing. I have tried all sorts of remedies, varying my dinner hour so as to go to bed with a full or empty stomach, etc., but hitherto in vain. I should say that I sleep quickly and soundly, and that, although a married man, temperate in all things, I am sometimes troubled with nocturnal emissions. Any suggestions that you can afford me to insure a good night's rest, free from dreams, will be most thankfully received by Yours, &c., M. D.

COMMUNICATIONS have been received from—

Mr. HENRY HARRIS; Dr. STOKER; Mr. PORTER SMITH; Mr. HANBURY; Dr. R. SMITH; Dr. STEVENSON; Mr. FORD; AN OLD PUPIL OF JOHN ABERNETHY; Mr. WALTER W——; Dr. RIDGE; Mr. ABBOTT; Mr. FORCE; Mr. ARNISON; Dr. J. W. MOORE; Dr. PEACOCK; Dr. MOXON; Dr. J. HUGHLINGS-JACKSON; Dr. CORFIELD; Mr. COULTON; Mr. J. KERUSE; WM. C.; M.D.; DISPENSARY.

BOOKS RECEIVED—

Hutchinson's Physiology and Hygiene—Smee's Prompt Treatment of Accidents—Leach's Hygienic Condition of the Port of London—Abrath on Small-pox—Castle on the Teeth—Andrews on Chloral—Corfield on the Treatment and Utilisation of Sewage—Report of the Inverness Lunatic Asylum—On Peat and Peat Charcoal—Report of the Medical Officer of the Privy Council, with Appendix.

PERIODICALS AND NEWSPAPERS RECEIVED—

O Correio Medico de Lisboa—Nature—Allgemeine Wiener Medicinische Zeitung — Gazette des Hôpitaux — L'Union Médicale — Civil Service Gazette—Pharmaceutical Journal — West Country Lantern—Hackney Gazette—New York Medical World—The London Mirror—Medical Press and Circular—Western Daily Mercury.

APPOINTMENTS FOR THE WEEK.

August 26. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

28. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

29. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

30. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

31. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; West London, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

September 1. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

MEDICAL SOCIETY OF LONDON, 8 p.m. Meeting of Council.

VITAL STATISTICS OF LONDON.

Week ending Saturday, August 19, 1871.

BIRTHS.

Births of Boys, 993; Girls, 999; Total, 1992.
Average of 10 corresponding weeks, 1861-70, 1934·8.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	895	820	1715
Average of the ten years 1861-70	719·3	682·2	1401·5
Average corrected to increased population	...	...	1542
Deaths of people above 90	...	...	...

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561189	3	3	3	1	4	1	3	...	90
North ...	751668	32	...	3	3	6	1	3	2	91
Central ...	333887	1	3	...	...	4	...	3	...	46
East	638928	12	9	3	...	7	2	4	2	84
South... ...	966132	32	4	12	...	9	3	6	1	114
Total	3251804	80	19	21	4	30	7	19	5	425

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·688 in.
Mean temperature	67·1°
Highest point of thermometer	89·2°
Lowest point of thermometer	54·0°
Mean dew-point temperature	56·5°
General direction of wind	Variable.
Whole amount of rain in the week	0·69 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, August 19, 1871, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1871.*	Persons to an Acre. (1871.)	Births Registered during the week ending Aug. 19.	Deaths Registered during the week ending Aug. 19.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3263872	41·8	1992	1715	89·2	54·0	67·1	19·50	0·69	1·75
Portsmouth ...	113450	11·9	79	48	86·2	54·0	66·7	19·28	0·88	2·24
Norwich	80533	10·8	52	47	84·5	50·5	64·0	17·78	0·47	1·19
Bristol	183298	39·1	93	92	...	...	...	...	...	...
Wolverhampton ...	68476	20·2	55	26	82·3	49·6	62·9	17·17	0·51	1·30
Birmingham ...	344980	44·1	248	181	84·1	52·5	64·1	17·83	1·79	4·55
Leicester	95882	30·0	59	74	89·2	52·0	65·9	18·83	0·32	0·81
Nottingham ...	86929	43·6	73	54	87·4	53·2	65·5	18·61	0·94	2·39
Liverpool	494619	96·8	327	347	78·5	53·3	62·7	17·06	0·27	0·69
Manchester ...	356099	79·4	187	255	...	...	...	...	...	...
Salford	125422	34·3	91	105	81·1	52·0	62·2	16·78	0·73	1·85
Bradford	146987	22·3	126	68	79·7	54·8	63·3	17·39	0·35	0·89
Leeds	260657	12·1	194	189	82·0	55·0	63·7	17·61	0·54	1·37
Sheffield	241507	10·6	171	165	81·5	52·5	63·3	17·39	0·85	2·16
Hull	122266	34·3	96	64	75·0	50·0	60·9	16·06	0·79	2·01
Sunderland ...	98797	29·9	60	93	...	...	...	...	...	...
Newcastle-on-Tyne	128677	24·1	83	110	68·0	54·0	59·0	15·00	0·48	1·22
Edinburgh	201728	45·6	120	106	75·0	47·0	59·8	15·44	0·60	1·52
Glasgow	479227	94·7	353	313	71·0	43·2	58·0	14·44	0·37	0·94
Dublin (City, etc.)	310565	31·9	158	112	75·7	45·0	59·3	15·16	0·60	1·52
Total of 20 Towns in United Kingd'm	7204001	33·8	4629	4164	89·2	43·2	62·8	17·11	0·66	1·68

At the Royal Observatory, Greenwich, the mean reading of the barometer in the week was 29·69 in. The highest was 29·91 in. at the end of the week, and the lowest was 29·26 in. on Friday afternoon.

* The figures in this column are the unrevised numbers enumerated in April last, raised to the middle of the year by adding 1-40th of the rate of increase which prevailed between 1861 and 1871. As the population of Dublin and its suburbs showed a decline between the Censuses of 1861 and 1871, the enumerated number in April last has been inserted above for that city, the population being assumed to be now stationary.

ORIGINAL LECTURES.

ON THE INFLUENCE OF THE NERVOUS SYSTEM ON DISEASES OF THE ORGANS AND TISSUES.

By THOMAS LAYCOCK, M.D., etc.

Professor of the Practice of Medicine, of Clinical Medicine, and of Medical Psychology and Mental Diseases, in the University of Edinburgh.

(*These lectures have been revised, and somewhat extended, by Dr. Laycock.*)

Lecture V.

A CLINICAL TROPHIC AND VASO-MOTOR ANATOMY OF THE BRAIN AND CORD, FROM A NEW POINT OF VIEW.

(*Continued from page* 212.)

Another and more important difficulty is, that there is so much irregularity in the distribution and development of the arteries that clinical deductions therefrom must necessarily be uncertain. The posterior communicating artery may be double, or be much smaller on one side than on the other, while the anterior communicating in such case will be larger, to equalise the blood-supply; so that here no valid deduction can be made. When we consider, however, that it is to the great laws of development we have to look for the better comprehension of the meaning of all these anomalies and irregularities in development whatever, this and similar questions are approached by my method from a wholly different point of view. It may be held as a principle that irregular or imperfect development of an artery on one side indicates irregular or imperfect development at some stage of evolution of the parts from whence the arterial development has begun, although there may be a rectification at some subsequent stage. Serres shows this law very conclusively. If, he says, a monster is born without a cerebellum, there is no vertebral artery; if without a corpus callosum, no artery; if without cerebral hemispheres, the internal carotid is reduced in size to "zero." On the contrary, the size of the artery indicates the extent of development. Thus, the size of the intercostals is in direct relation to the size of the spinal cord, and the volume of the spinal arteries in direct relation to that of the external carotid and of the ophthalmic artery, because the parts supplied by these correspond to the regions of the trunk. Further, amongst the encephalic arteries of embryos, those of the tubercula quadrigemina, median lobe, and olfactory and hippocampus lobes correspond in size to the internal maxillary artery and the arteries of the cord, because those nerve-centres and parts of the maxillary area are in direct developmental relation. On the other hand, the arteries of the corpora striata and corpus callosum and the posterior cerebral and cerebellar arteries are developed in inverse relation. In truth, we want a pathological anatomy of the development of arteries. Anatomists have given us with infinite care and minuteness detailed accounts of arterial anomalies, but beyond the bare facts we know nothing. Now, I more than suspect that if inquiry were made into the pathological antecedents of persons whose bodies manifested these anomalies in the development of the encephalic arteries, we should find that they had some unsymmetry of cranium, and had exhibited a tendency, at least, during life to encephalic neuroses. Unfortunately, to combine clinical teaching with minute pathological research is impossible in the lecture-room; it is in asylums, in which the brains of the epileptic and the insane can be deliberately examined, that research of this kind is possible. I am not aware, however, that any minute anatomical researches into the distribution and anatomical condition of the encephalic arteries have been made in relation to the numerous problems involved.

The facts to be observed include some which appear utterly diverse until linked together by the principle of the method I recommend. Thus, the development of the hair of the head—and I may add of the trunk and the limbs—is in relation with that of the nerve-centres; so also as to the bones, not only of the cranium and the face, but of the limbs. As to all these points, it is necessary to remember in observation the laws of symmetry and of conjugation. It is noticeable as to the hair in various ways. Two of these have been already indicated—viz., symmetrical greyness and baldness; but the mode of distribution, and the development, and atrophy of the hair in the embryo and at successive ages are of importance. Thus, the direction of growth of the hair at the crown is from a centre; so also of the eyebrows from the median line when they meet across the nose. In like manner baldness begins at the vertex, and when it commences at the temples a central tuft is sometimes left on the forehead, or one on each side with a connecting bridge. Not less obvious is the same law in the distribution of the hair on the limbs and trunk. In osseous development it is everywhere manifest with commissural integration, such as occurs in the formation of the basilar process, and of the occipital and frontal bones; there is also corresponding arterial integration and union of nerve-centres. According to this method two lines of comparative research would be needed; by the one we should inquire into the order of embryonic human evolution, by the other ascertain the order of development in vertebrates generally. To permanent forms of one or other of these evolutions anomalies in arterial and cranial development could be referred, and therewith, perhaps, some anomalies of mental manifestations due to hereditary tendencies.

To apply these views clinically, it is necessary to consider the anatomy of the nerves in relation to the bloodvessels. For example, the ophthalmic artery, a branch of the internal carotid, supplies, besides the eye, an important clinical region—viz., the sinuses, the lachrymal gland, the muscles of the eye, the eyelids and eyebrows, and the frontal muscles. Besides the obvious emotional relations of these parts, here are situate the seats of frontal headaches, coryzas, supra-orbital neuralgia and leprosy, exophthalmos, œdema and pigmentation of eyelids, due to trophic changes. Clinically, we conclude there must be a common centre, or centres, of motor, vaso-motor, and trophic action; anatomically, we derive no information as to this fact, because the integration of ganglia in the occipito-spinal region, with which the trophic, sensory, and motor nerves are connected, is too complete to be easily unravelled. It is possible, however, to obtain sufficient general knowledge by what may be termed circumstantial evidence. The face and cranium are made up of coalesced vertebræ. Let us suppose the trigeminus or fifth nerve represents three of these, then the ophthalmic branch will enter into the primary elements of one vertebra, and that the most anterior, and we can, therefore, classify the ophthalmic artery with it, and the ophthalmic ganglion with both. Turning to the anatomy of the fifth, we find that both the motor and sensory fibrils emerge close to the junction of the crus cerebelli with the pons; hence "coarse" lesions at this point would affect both the peripheral and central terminations through the trunks of the nerve, but dynamic changes would be influential lower down, at the ganglionic centre in the cord. Now, the sensory branch of the fifth arises from the "grey tubercle," which is in intimate connexion with the sensory centres of both the vagus and glosso-pharyngeal nerve. Here, then, is the spinal centre, and here are, probably, those trophic commissural connexions which determine the morbid conditions I have mentioned.

Clinical facts plainly show that this region is spinal. The eyebrows fall off in leprosy (an affection of spinal nerves); the eyelids are œdematous and pigmented diastaltically in connexion with certain uterine and urinary disorders, as I showed in a former lecture; the eyes stare not only in mania and in certain emotions, but also in a cardiac neurosis with vascular bronchocele, known as Graves' disease. Further, experimental researches by Claude Bernard show that pinching the *motor* roots of the seventh and eighth cervical and first dorsal nerves excites a projection of the ball of the eye, together with dilatation of the pupil. Hence, the term "oculo-spinal" Claude Bernard has given to the corresponding portion of the spinal cord. It follows, therefore, that there are two centres in the occipito-spinal region. I have marked off one for changes in relation to mental states, another for corporeal conditions. As the eyebrows seem never to become grey from emotion, they are spinal in their trophic relations.

A similar general fact comes out when we trace the causal connexions of epilepsy, hysteria, and of other convulsive diseases with or without abolition of consciousness. Some of the phenomena are very distinctly manifested in viscera connected with the spinal cord, others with muscular structures of the face that subserve to the manifestation of the various states of consciousness, more especially of emotions, others with purely mental tissues. The connexions of the third and seventh pairs of nerves with the occipito-spinal region are of this class. Laughter and weeping are emotional changes. When, however, they occur morbidly, with an imperfect abolition of consciousness, they are spinal, and differentiate hysteric from epileptic convulsions; and to these we add other spinal phenomena, such as globus, flatulence, limpid urine, and probably an orgasm of the uterus. Hydrophobia, whether we regard its sensorial or

convulsive phenomena, holds an intermediate place between hysteria and epilepsy, yet with a spinal-tetanic character; in all these the region of the lower or animal instincts is more or less involved. The region of epilepsy has a wider range, because the vascular system of which it is the seat is of much wider extent. Downwards the symptoms are chiefly convulsive, upwards chiefly sensory, until we see in the so-called "petit mal," and in epileptic delirium, mania, and automatic impulse, phenomena exclusively cerebral. It is because the epileptic vascular area includes the cerebellum—the great trophic centre, and the sensory system of the head and cranium—that mania and dementia are more apt to follow upon epilepsy than on hysteria, and all those trophic changes in the skull which coincide in long-standing cases of epilepsy. In epilepsy, the hereditary transmission of defects in cerebral nutrition is more certain than in hysteria, and this, I think, because of the connexion of the cerebellum with the genetic glands. In hysteria the symptoms are more obviously dynamical; it is only when the phenomena become epileptiform that the prognosis as to consecutive brain-change becomes more important. From this point of view the ejaculatio seminis during an epileptic paroxysm is not without meaning in investigating the causal relations of solitary vice and sensual indulgence to epilepsy and brain-disease. I may add here that the pathological observations made by Gall, Serres, and others, indicate that this region is in anatomical and physiological relation with the sexual organs, but perhaps more especially that of which the superior vermiform process or median lobe is the centre, and which has direct commissural connexion with the brain. With a knowledge of these facts, we can understand not only why this region is the seat of vaso-motor neuroses, like puerperal and hysteric convulsions, catalepsy, and convulsive epilepsy, but why certain morbid sensorial conditions (æsthesiæ) are caused by sexual excesses, and why utero-ovarian changes, whether during pregnancy or otherwise, induce, by direct or diastaltic action on the basilar centres, peculiar modifications of the appetites and instincts. To this group belong those changes in cerebral function and structure leading to insanity which supervene in certain kinds of epilepsy, more especially that termed the "petit mal," which is, in fact, a *sensory* epilepsy.

To understand more clearly the clinical relations of these cerebellar regions to the appetites, instincts, and intellect on the one part, and to the spinal cord and sexual organs on the other, we must revert to the connexions of the spinal arterial system with the basilar system. It is divisible into two distinct elements—the anterior and the posterior. The anterior spinal artery commences in development as a double artery, and is completed as an integrated trunk, like the aorta, anastomosing with the sacral artery. Ascending upwards in front of the spinal cord, the integration ends at the lower edge of the medulla oblongata, and then by a short trunk the blood is poured into or from the vertebral artery on each side. According to my rule this divergence to each side indicates a corresponding lateral commissure between the parts above and the medulla oblongata, probably the decussating pyramids; while in like manner the longitudinal integration indicates a central spinal commissure, extending from the point of integration at the lower edge of the medulla oblongata downwards along the whole length of the anterior columns.

It is otherwise with the posterior spinal arteries. They arise in development from a portion of the spinal cord corresponding to the second lumbar vertebra, or, in ordinary phrase, are distributed there. In either case they are connected one on each side with the vertebral artery of their own side a little lower down than where the anterior spinal join, and, running parallel with each other downwards on the posterior surface of the cord, correspond to a longitudinal and lateral commissure, which connects each half of a segment of the spinal cord with that above and below. From this point of view, the transverse anastomosing branches which connect each posterior spinal artery with the other along the whole length of the cord correspond to the transverse decussating fibrils or commissures of the cord which connect the two halves of the segments transversely, and of which I have already pointed out the clinical significance.

One other important clinical fact must be mentioned. Both the vertebral and the spinal arteries have intimate anastomoses with the vessels of the spinal muscles; so intimate, indeed, that the latter must be considered as in the same vaso-motor areas of activity; so that there is a sort of analogy between the relations of these spinal muscles to the cord and those of the cranium to the brain; and so, also, as to certain sensory nerves. Bearing these and other facts in mind, we will illustrate their practical application. 1. In congestions and inflammations of the cord and its membranes the vaso-motor system of the cervical muscles is included, as is shown by the retraction of the head in cerebro-spinal meningitis, or "purple" fever, and in cerebral meningitis of children. A study of the connexion of the spinal arteries through the "reinforcing branches" with those of the spinal muscles enables us to understand this pathognomonic sign, and also why ice-cold applications to the spine are so directly indicated in these cases; but it also warns us not to adopt the too mechanical theory of the cerebro-spinal circulation of the descriptive anatomist. 2. We can have clearer views of the headaches and backaches (rachialgia) so common in various diseases. The coronal headache, often associated with nervous heat and baldness of the crown, is probably a neurosis due to changes in the sensory centres situate in the occipito-spinal region, upon which the other symptoms of "nervousness" also depend. The occipital headache has a like origin, but lower down—more, in short, in the cerebellar area. 3. Pain in the lumbar region is a very distressing symptom in various fevers—more especially in small-pox, yellow fever, and remittents and intermittents—in cases of nervous debility from sexual excesses, and in diseases of the kidneys, uterus, ovaria, and testes. Where is the seat of this lumbar pain? It is often muscular, but often, I think, in that spinal region where the posterior spinal arteries terminate, or, more correctly, whence they arise, and which I name the genito-spinal. It corresponds in the cord to a point opposite the second lumbar vertebra, and has direct diastaltic connexions with the occipito-spinal region, and especially with the areas supplied by the anterior cerebellar and posterior cerebral arteries. The nerve-centres comprised in these areas are the essential cerebral mechanism in all vertebrates. 4. It is from these intimate connexions that lumbar pain is so constantly associated with frontal headache, especially in fevers and in spermatorrhœal debility, the line of communication being probably the fornix. 5. Since all this region is the primary region of the senses and of the animal instincts and appetites, on like grounds we can understand how it is that affections of the genito-spinal region—as diseases of the kidneys, spermatorrhœa, and other like disorders—not only affect the nutrition and functions of the cerebellum and other centres in the occipito-spinal region, but also of the nerves of sense—more especially of the retina—by vaso-motor diastaltic action on the cerebral ganglia. In like manner we can understand how there is a close connexion between morbid changes in the retina, as revealed by the ophthalmoscope, and structural diseases of the brain and spinal cord, and how lesions of the sensory portion of the genito-spinal system, such as those which constitute the anatomy of locomotor ataxy, may extend upwards according to the "Wallerian" law of degeneration, and bring on mental diseases dependent on vascular degeneration, like that termed mania with general paralysis.

It is essential, however, to the clear understanding of the connexion of these clinical vaso-motor areas, to take into consideration the trophic and vaso-motor areas of the mental regions proper of the encephalon, more especially with regard to the effects of excessive mental labour or brain-work. I have indicated various points of this division in my psychological text-book,(a) to which I refer you. I would only here observe that the same principles which I have applied to the vertebral vaso-motor system are available to the cranial proper, as represented by that of the internal carotid system. The anterior cerebral arteries are united by the anterior communicating artery representing the anterior commissure. Now, this commissure is sometimes represented by integration of the two anterior cerebral arteries. Follow, however, their branches, and you will find that they subserve to the functions of two commissures of the hemispheres—the transverse or corpus callosum, which combines the two, and the inferior longitudinal, which combines the brain-activities of each. Hence vaso-motor disorders of this anterior cerebral system are likely to induce that disordered unity of consciousness which is the predominant character of delirium and insanity. On the other hand, this region may be unaffected while the posterior cerebral region is disordered, in which case the instincts and appetites may be insane and the intelligence untouched. In this mental area, also, the law of arterial development coincides with that of cerebral and mental development, for the radicles of the external carotid system extend back to the posterior regions of the convolutions, in accordance with the law of cerebral development, which is backwards as well as forwards. In short, all the higher

(a) "Mind and Brain," second edition, vol. ii., p. 475.

convolutions are later in development, and occupy the lateral anterior and posterior regions of the cranium.

It is within this mental area, to mention an illustrative example, that the phenomena of true aphasia are manifested; not, however, merely as restricted by pathologists to structural lesions visible to the eye, but when manifested as mutism in certain cases of melancholia, in dementia, cretinism, and idiocy. You will easily gather from all these facts proofs of the principle I laid down when discussing the methods of clinical observation of the nervous system, that you cannot separate those of the mind (so-called) from others of the brain without falling into gross errors of pathology, diagnosis, and treatment.

ORIGINAL COMMUNICATIONS.

THE ALICE HOSPITAL AT DARMSTADT.

By CHARLES MAYO, M.D.,
Fellow of New College, Oxford.

A short description of a temporary Hospital, constructed and worked by Englishmen during the late war, may be of interest to those who are likely to have the duty of arranging similar establishments.

The chief object of the Alice Hospital was originally to receive cases of typhus, typhoid fever, and dysentery coming from the neighbourhood of Metz, where these diseases had become epidemic, and were threatening to spread with violence. A large building constructed to hold the war material belonging to the engineers, and not designed for human habitation, was given up to me by the Hessian War Office, and the necessary structural alterations were undertaken according to my requirements by Government officials. It had been at first proposed to put patients into this building; but my experience of the system of temporary buildings used in the American war led to the determination to keep the stone fabric solely for domestic purposes, and to house all the sick in wooden "barracks," as the Germans call such structures. Accordingly, having staked and measured out the ground, I commenced by putting up four barracks in *echelon*, the centre of the *echelon* being near the outermost corner of the stone buildings; and a covered way, boarded on one side only, to connect all the barracks with the domestic offices. The dimensions of each barrack were these: length 112 feet, breadth 25 feet, height of side walls 10 feet, height of gable 21½ feet. A small room 11 feet by 9 was cut off on each side of the eastern entrance; and the latrines, two in number, approached through a little *pronaos*, having windows on both sides, projected from the outermost corner of the opposite end. This was the space in which thirty beds were placed, every bed having a window on each side, and having about seven feet of the length of the ward allotted to it. For ventilation, there was a "roof-rider" (to translate the expressive German name for it) or small roof perched on the top of the main one, throughout the length of the barrack; it was about 4 feet wide internally and 2 feet above the main roof; and at each side was furnished with hinged lids worked by strings, throughout the whole length, while the extent of opening could be further varied by the removal of planks, which were merely nailed on, and were accessible from the outside. There was also a continuous line of lids 10 inches deep along each side wall just above the ground. All the windows were, of course, made to open; and on the south side, in addition, the spaces between the windows were turned into lids, so that the whole side wall from the level of the window-sills upwards could be laid open to the sunshine.

The materials used were rough timber and planking, hollow and perforated bricks for the side walls to the height of 1½ feet, and asphalte paper or felt to cover the roof. The walls were of double planking, the interval being filled with straw, and the roof had an inner coating of thin canvas, over which paper was pasted, so as to enclose a layer of air about six inches thick between that and the outer planking. The haste with which it was necessary to erect the barracks compelled me to use whatever materials could be procured with the smallest delay; and as it was impossible to get 150 window-frames made and glazed at a few days' notice, I used small iron skylight-windows of various shapes and sizes set upright, four in a group, which gave a rather grotesque look to the buildings, but answered admirably. The soil was a dry sand, ninety feet deep; therefore I dispensed with a wooden floor, and laid down the gravel of the district (which is really not gravel, but decomposed granite) instead. The surface of this was frequently removed and replaced by fresh, and the result proved that, where the nature of the soil permits it, this plan is preferable to any but the best wooden floor.

The heating was effected by two large brick stoves and three iron stoves in each barrack. During the depth of winter it was found impossible to keep up the temperature at night. The contents of cups and bottles were frozen quite solid within three or four feet of the stoves; but no one appeared to be any the worse for it.

There were no drains. Under the seat of each latrine was placed a tub made of half a petroleum cask, with a couple of iron handles nailed on to it, containing a solution of sulphate of iron. These tubs were withdrawn from the outside once or twice daily, and emptied into pits dug at a distance. The pits were about eight feet deep, and were filled up when their contents rose to about half that height. All other refuse was disposed of in a similar way.

Finding that the results of the Alice Hospital were very favourable, the Government added four new barracks of about the same size for thirty beds each. These were built with a little more deliberation, and rather more solidly. They had wooden floors, and the timber framework of the walls was filled in with hollow bricks throughout. They were arranged in a second *echelon* parallel with the first, and were in like manner connected by covered ways with the domestic buildings. Besides these barracks there were a small building containing an operating room, a reception room, and a post-mortem room, a dead-house, and a small separate barrack for six beds for isolating small-pox and other cases. Moreover, I had a ninth large barrack for thirty beds at the garden of the Sisters of Charity, about a mile and a half distant, which was a little larger, and was more solidly built than any of the others.

The disinfectants used were sulphate of iron for the latrines, etc., and liquor sodæ chlorinatæ and solution of permanganate of potash in the wards. We had one case of pyæmia, in a man who came from another Hospital, and no gangrene. In the first twenty weeks we received about 700 patients, and had twenty deaths; after that time, however, a number of hopeless cases were sent to us from Hospitals which were to be closed, and the rate of mortality was higher in consequence. We had about 180 wounded, the majority of them very severe cases. Small-pox was imported several times, but we succeeded in preventing it from spreading.

The nursing was done by a society established and superintended by H.R.H. the Princess Alice. Ladies of the neighbourhood gave great assistance in the kitchen and linen-rooms. Some of the French soldiers, of whom about 250 were patients in the Hospital, made excellent ward attendants. The funds were supplied in the first place by the Red-Cross Society, and afterwards by the German Government. A fuller account of the Hospital will shortly be published.

URETHRAL FEVER.

By J. FAYRER, M.D., C.S.I.

In the month of June, 1871, I was consulted by an English gentleman, 43 years of age, of robust and muscular frame, and who had been in India for some years, though not a constant resident, of Calcutta, on the subject of a stricture of many years' duration. He was in good health, of temperate habits, married, and regular in his mode of life; much of his time spent at sea. He informed me that several previous attempts had been made, at long intervals, to dilate the stricture, but without any very satisfactory results, each attempt to pass a bougie or catheter having been followed by fever. He had been able, himself, to pass No. 4 at times, but apparently this size had never been exceeded.

Lately the stricture had been very troublesome and irritable. Attempts to micturate were frequent, disturbing his rest at night, and rendering him very uncomfortable during the day. I passed No. 6 metallic bougie with comparative ease, without causing much pain, and only a trace of hæmorrhage. At this time he had been remaining quietly at home for some days; his bowels were regular, and his general health very fair.

I passed the instrument (No. 6) at about 8 a.m. He was free from uneasiness all day; took his wonted food, and passed water in a better stream than usual. There was neither hæmorrhage nor pain. At about 5 p.m. he began to feel chilly and uncomfortable. He felt weary; pains in the limbs and body supervened; shortly after a rigor came on, which was

rapidly followed by others, each more severe than the last, and when I saw him a little later, they were so violent as to assume the aspect of general convulsions. He was almost unable to speak, but he made me understand that although his body, especially his back between the shoulder-blades, was intensely painful, he had no pain in the bladder, urethra, or perineum, and that he had passed urine in a fuller stream than before. Hot fomentations to the back gave him relief; warm brandy-and-water with quinine and opium were administered. The convulsions lasted for several hours, were followed by slightly increased heat of the body, with great prostration, and this again by moistness of the skin, which did not amount to free diaphoresis. His pulse, from soon after the commencement of the rigors, was much depressed, rapid, and very feeble; at times could scarcely be felt at the wrist. His face was congested, and his appearance that of extreme suffering.

He gradually recovered, and regained his strength, but he looked broken and aged by the attack. Throughout he steadily maintained that he had no pain in the urethra, and that the urine passed more freely and less frequently (though still in ample quantity) than before. A herpetic eruption on the lips followed. For several days he continued to take quinine, and was kept fully under its influence; his bowels were regulated, and as good a diet as he could take, with a very moderate amount of stimulants, given. He has for some years abstained almost entirely from stimulants, but apparently had lived more freely in former years.

In about a fortnight, having recovered and being encouraged by the improvement already made, he was anxious to continue the treatment, and accordingly at about 9 a.m. I again passed an instrument. On this occasion, No. 8 passed with no more difficulty than No. 6 on the first occasion. I observed that there was a certain amount of spasm, and that the urethra grasped the bougie tightly. There was only a slight tinge of blood, but he passed water freely immediately after the instrument was withdrawn. The urine was clear and natural. He said that as the instrument passed through the stricture it gave him considerable pain, perhaps rather more than on the last occasion.

I gave him gr. x. of quinine with opium gr. ij., immediately; and ordered it to be repeated in about six hours. He passed the day well, and felt no inconvenience except that the quinine slightly affected his hearing, and the opium made him feel rather drowsy, until about 4 or 5 p.m., when he was again attacked with rigors and vomiting, but not so severely as on the former occasion. There was neither pain nor difficulty about the urethra; a very small quantity of water was passed with ease, and the bowels acted. The rigors were neither so severe nor so prolonged this time, but when they ceased he passed at once into a state almost amounting to collapse; the face being deeply congested, and the pulse intermittent (about 140) and frequently barely perceptible. His condition was most alarming, and I feared that he would not recover. Stimulants, quinine, and diuretics were given; hot fomentations and sinapisms were applied to the loins, for after the first discharge no urine was secreted for several hours. He was conscious, but seemed so exhausted that he could not at times speak even in the faintest voice.

The following day he remained in much the same condition; the skin was moist, and the temperature but slightly exalted. Towards the evening he voided a small quantity of urine; the irritability of the stomach, which had been very distressing, subsided, and he gradually, but very slowly recovered. For many days he remained in a state of great prostration; and when he was sufficiently recovered to enable him to move, I sent him out of town for change of air. He had then the gait and aspect of quite an aged man. He continued to take quinine, and had no recurrence of anything like a paroxysm of ague. I have since heard that he is better, but is still weak. The urethra on this occasion was apparently slightly benefited; he never had any pain, even on pressure, over the seat of the stricture, and he passed water in an improved, but by no means a fully natural, stream. The improvement was, however, purchased at such cost—so terrible a risk of life—that I did not deem it right to make any further attempt to dilate the stricture at present.

I have before, in making some remarks on urethral fever, expressed my belief that it is more prone to occur in a malarious climate like that of Lower Bengal than elsewhere. I have no recollection of ever having seen it in such a marked and severe form as in Calcutta; for not only does it sometimes supervene here after catheterism in difficult strictures, where the instrument is passed with difficulty, and the patient's constitution is irritable from the effects of the disease, but in slighter cases, and sometimes even when there is no stricture at all, and the instrument has been passed for other reasons.

The case I have just related seems to support the view I have advocated. The patient was a healthy man, free from visceral disease, and not, as far as I could judge, previously influenced by malarious cachexia. Though a resident of Calcutta, he was not a constant one, and as great part of his time was spent on board ship at sea, he might fairly be supposed to be, as he looked, in good health. He admitted that his stricture was an irritable one, much worse at times, and that every attempt to dilate it, especially in this country, had been followed by a certain amount of constitutional disturbance, though far less than on this occasion. He informed me, also, that some of the operations had been attended with considerable difficulty, pain, and hæmorrhage.

I had not the least difficulty in introducing Nos. 6 to 8 into the bladder. There was certainly some obstruction, chiefly arising from spasm; but it was easily overcome, and there was scarcely more than a trace of hæmorrhage. But the treatment was commenced at a most unfavourable season, when malarious influences were exceedingly rife, intermittent fever, neuralgia, and other disorders expressive of its effects being very common, though in other respects the season, whilst one of the wettest, has been one of the healthiest ever known in Bengal.

The constitutional disturbance that followed each attempt to dilate the stricture was exactly like malarious fever in a severe form; and, on the second occasion, nearly proved fatal in the state of collapse that rapidly supervened on the rigors.

The resemblance of the rigors in the first attack to convulsions is worthy of note, and it shows how nearly the two conditions are related to each other.

Quinine and opium, which were freely admininistered on the second occasion, directly after the operation, and in anticipation of mischief, seemed to have but little effect. The rigors were certainly less severe than in the first attack, but the subsequent condition was much worse, and for some time his life was in great peril.

I have not the least doubt in my own mind that, had the same treatment been followed in England, or in the dry climate of the North-west of India, a certain amount of urethral fever, due to the peculiar influence exerted on the nerve-centres by the operation, would have followed; but it would have been of a less severe character than it was here in the damp and malarious atmosphere of Calcutta. How far the internal and external conditions mutually influence and intensify by reaction on each other I cannot say; but that they do exert an influence I feel convinced. And it is not improbable that pathologists may see in such cases something to throw light on the subject of the peculiar perturbation of the nerve-centres, which, in malarious poisoning, whatever that may be, expresses itself sometimes by convulsions in a child, by an ague fit, continuous or intermitting cold sweats, neuralgia, or some other neurotic conditions in the adult.

Calcutta.

ON RHEUMATISM.

ITS NATURAL AFFINITIES.

By J. JAMES RIDGE, B.A., B.Sc., B.S., M.D. Lond.

(*Continued from page* 247.)

In the last paper we discussed the diseases due to the same cause as most cases of rheumatism. But there are diseases whose origin is quite different from cold-excited rheumatism, in which, nevertheless, acute rheumatism, or symptoms closely resembling it, sometimes occurs; these we must now consider.

II.—Diseases Consistent with Rheumatic Symptoms and often Associated with Them.

It is clear that by seeing what sort of diseases rheumatism associates with, we shall, according to the proverb, be able in some measure to tell what sort of a thing it is itself. For instance, a general disease of peroxidation cannot accompany a general disease of suboxidation; they will be mutually destructive. So, if the chosen associates of rheumatism are found to be diseases in which every oxidisable material is eagerly seized upon and oxidised, it will furnish a strong presumption that no vagrant suboxidised starch will be permitted to exert its baneful influence. We shall see.

a. Scarlatina.—Trousseau asserts that by careful investigation we may discover articular pains in perhaps one-third of the cases; that acute affections of the joints, general

arthritis, peri- and endo-carditis frequently occur during the course of the disease, and that chorea sometimes follows it in children. He regards it as the result of the presence of the rheumatic diathesis. The occurrence of the disease has been accounted for by the interference with the action of the skin. But, as Dr. Fuller has said, the small accumulation of any poison which could arise from long inaction would be rapidly dissipated by a very short rheumatic sweating. If lactic acid be the cause, lactic acid must be continually reproduced. In scarlatina such production is in the highest degree improbable. If lactic acid (as a stable compound), and so rheumatism, was not produced before, when oxidation was only normal and food abundant, *à fortiori* it ought not to be produced now, when oxidation is intensely rapid, the muscles unused, and starchy as well as other food diminished. Dr. Richardson, in consequence of his lactic acid experiments and the association of scarlatina with rheumatism, has expressed his belief that both diseases are produced by similar poisons—acid poisons, like lactic acid. The evidence of the presence of the acid in scarlatina is, therefore, still more slender than in the case of rheumatism, and in both is baseless. I believe the treatment of scarlatina on this ground with real alkalies (potash, soda, and their carbonates) would be most disastrous, as much so as it is acknowledged to be in pyæmia and other diseases with a tendency to suppuration.

b. Pyæmia.—The frequency with which the joints are inflamed in this affection is well known. The inflammation may or may not proceed to suppuration. The similarity of symptoms between this disease and acute rheumatism in many cases has often been remarked. In fact, sometimes a diagnosis of pyæmia has been made only in consequence of the occurrence of suppuration. Many seem to think that if suppuration occurs thus generally it is proof positive in favour of pyæmia. Consequently, acute rheumatism is perhaps credited with a less suppurative tendency than it ought to be. Of course it is very easy to prove that rheumatic inflammation does not tend to suppurate, if all cases in which suppuration does occur are first carefully excluded, and termed pyæmic.

There is no doubt, however, that the reception of a certain poisonous material into the system by inoculation is capable of setting in motion a train of symptoms in which joint-inflammation, in common with that of other serous membranes, holds a prominent place. What is the value of this fact? Is it sufficient to prove or render it probable that the arthritis in rheumatism is due to the presence of a poison? We know it is not the same poison (if any), else the two diseases would be identical. We know, further, that it is an invisible poison. But, on the other hand, if this subtle poison does not provoke suppuration when inflammatory action is set up, it is unlike all the other invisible blood-poisons with which we are acquainted. We can only say, therefore, that while poisoned blood predisposes to and excites inflammation and suppuration, it is possible that a poison of a different nature may excite the rheumatic symptoms. This is not a very important conclusion.

By way of illustration let us take a parallel case. It is well known that the effect of fright upon a nursing mother has sometimes been such that the milk has become endowed with peculiar properties, so as to cause diarrhœa in her infant, convulsions, or even sudden death. Now, we can only imagine that there is some alteration in the composition of the milk—perhaps some poison present—which produces these effects. But the same cause —namely, fright—has operated, times without number, in originating epilepsy. Are we, then, to suppose that the epilepsy is produced by the elaboration of the same poison, or, if not exactly the same, of some similar poison? We know, in the first case, that poisonous material can be elaborated by fright, and next, that fright can cause epilepsy; hence, on the same grounds as in the case of pyæmia and rheumatism—perhaps even surer—we might conclude that epilepsy also was due to a definite blood-poison. But still more, fright can not only cause epilepsy, but chorea. Are we, then, to extend the same explanation to chorea? Further, this fright-occasioned chorea may after a time give place to true articular rheumatism, as in a case related by Trousseau. Some might therefore infer that the causation of rheumatism by a poison in the system is hereby proved. Yet, if so, the conclusion is inevitable that the epilepsy, the chorea, and all the mental and nervous affections which fright can induce, are due to a similar cause. This is manifestly too broad a conclusion. All we can say is, that the fright produces a modification of various parts of the nervous system, and so of the functions of the organs under their control.

As, then, epilepsy may be established by fright, so arthritis may be set up by influences acting through the nervous system. As the same cause—fright—may occasion other affections under other circumstances, so the same influences acting on the nervous system may set up pleurisy, pericarditis, neuralgia, etc. Lastly, as the modified milk can produce an action on the nervous system similar to that which distant irritation or fright often produces, so the arthritis may be set up by the ichor of pyæmia or indirectly by the influence of the nervous system. The very differences between the two diseases, pyæmia and rheumatism, point to some such different origin, while the resemblances between them are so great that we might expect we should be able to trace some such connexion among their causes as the above considerations indicate.

Dr. Sutton(a) has referred to the difficulty of recognising rheumatism from pyæmia in some cases, and narrates an instance. In this case the symptoms at first exactly resembled those of rheumatism, and it was only eight days before death that abdominal symptoms set in. The autopsy revealed abscesses in the lung and elsewhere, and the *fons et origo* of the septicæmia was supposed to be one of the bronchial glands. No reason can be assigned, however, why the first diagnosis—that of rheumatism—should be regarded as incorrect. Why should not pyæmia be lighted up in the course of rheumatic, as of other, inflammation? Could not the febrile blood of rheumatism irritate the caseous gland so as to render it the source of the septicæmia? Absolute certainty as to the existence of true rheumatism in this case is perhaps impossible; but may not the presence of the herpetic eruption on the lower lip indicate that the primary fever, and so the joint-inflammation, was due to the impression of cold? Such suppurative forms of rheumatism, I repeat, might be considered more common, if another name, on account of the suppuration, were not immediately given them.

c. Gonorrhœa.—At first it might be imagined that in the rheumatism which is attributed to this affection there could be no doubt of the existence of a *materies morbi*. Gonorrhœa is considered a specific disease: even then it does not follow that it is a blood disease. But it can only be called specific in a very diluted sense. We know that the products of other mucous inflammations are capable of exciting similar action when brought into contact with other mucous membranes. In this way purulent conjunctivitis may be excited; so, also, common catarrh. In these cases it is the local contact which is all-important. The influence of the diseased products on a healthy mucous membrane is such that they excite an inflammation having similar tendencies to that by which they were themselves produced. The contagium's power of doing this is greatest, as a rule, when it comes into contact with exactly the same kind of structure as that from which it was itself cast off. But, on the other hand, its specific nature is so natural that the generating inflammation and the generated contagium are both produced every day *de novo* by the simple impression of cold. And, further, the establishment of a similar affection in others by contact depends greatly upon the tendency to that inflammation which they previously possessed; so that we find immunity from some of these affections in some cases, or at some times, while in others, or at other times, they are readily set up. These observations equally hold good in the case of gonorrhœa. This affection can be excited by other irritants than the special pus. Leucorrhœa is by no means an uncommon cause. The passage of instruments has occasioned it, especially in those who have suffered from it before; and I see no reason why cold may not be the cause in some cases, whether or not there may have been exposure to the risk of getting it otherwise. No doubt an explanation of this sort in any particular case would be scouted at once, and most often with justice; but it is very likely that the foregone conclusion as to the cause of purulent urethritis, which we are only too ready to come to, has blinded our eyes to cold as an occasional cause thereof, in the same way as I before remarked in the case of suppurative rheumatism and pyæmia.

The supposition that gonorrhœa is only a local inflammation, as simple as nasal catarrh, is strengthened by the so-called constitutional complications of the disease. Take, for instance, the case of orchitis; epididymitis is, perhaps, rather more frequent, but is more open to the suggestion that there has been an extension of the disease along the vas deferens, where orchitis commences first, or is alone produced. This cannot be so. We see, then, that the testis sometimes becomes inflamed thus during gonorrhœa, and that, coincidently with this, the purulent discharge ceases, or greatly abates. Such a result is said to be due to metastasis.

(a) *Medical Times and Gazette*, September 8, 1869.

The cause is often obvious, for the patient has had, now or previously, some blow or injury to the organ, or he has sat upon some damp place, etc. But these causes frequently produce orchitis when there has been no previous gonorrhœa. Another patient with gonorrhœa is exposed to cold and damp, and in a day or two is attacked with rheumatic symptoms, with or without orchitis. Another so exposed suffers from ocular inflammation; sclerotitis and iritis are set up: conjunctivitis is equivocal, as we cannot be quite sure that no pus has come in contact with the mucous membrane. In these cases, also, the urethral discharge often ceases; and they, too, may be established by the impression of cold without gonorrhœa. Now, has the gonorrhœa anything to do with their production? Before we answer this it will be well to note that cases are on record(b) in which rheumatism, which had previously occurred as a consequence of gonorrhœa, was again set up, after some time had elapsed, by passing a bougie, or by attempted coitus on marriage. Here simple irritation was all that was required to establish the train of symptoms, and any special *materies morbi* is out of the question. Ought we not, then, to regard the irritation of the inflamed mucous membrane in purulent urethritis, whatever that is excited by, as simply the predisposing cause of the other symptoms, including the inflammation of joints. There are probably at least two other conditions requisite for its production—(1) constitutional predisposition to the inflammation of fibrous tissues, and (2) the exciting cause, cold or some traumatic influence; for, unless some factors of this kind were required, we should surely see the affection more frequently. The proneness to the arthritis increases after each attack, and at length the irritability caused by the passage of a bougie may be sufficient to set in motion the train of symptoms and appear to act as an exciting cause. Rigors followed by febrile symptoms are also not at all an uncommon result of catheterism.

We have not the slightest reason to imagine that gonorrhœal rheumatism is produced by the elaboration of a suboxidised acid poison, nor any good ground to suppose that there is any specific virus concerned or required.

e. Epidemic Cerebro-spinal Meningitis.—About the nature of this disease there is much difference of opinion. I notice it here because of the not unfrequent association with it of "inflammation of the large joints, marked by swelling and pain, and sometimes ending in sero-purulent effusion." It is possible, as some have suggested, that more than one disease has been included under this name. Its boundaries, in fact, do not seem to be accurately defined. Doubt seems to be generally entertained whether it is contagious; but there seems to be none that it is able to arise sporadically. Mr. J. N. Radcliffe notices the suggestion that the blood-change and the eruptions may be of nervous origin, as well as the symptoms directly due to the meningitis. Dr. Day has referred to this affection, and the association of rheumatism with it, in support of the theory that the latter has a spinal origin. If the meningitis in these cases was certainly the cause of the arthritis, this argument would have great weight. It is not impossible that such a relation should exist between them, but there is no such result in ordinary spinal meningitis. To what, then, is it due? Have we here an instance of acute rheumatism excited by a poison in the blood? It would be very difficult to prove the negative of this, or even the alternative that the blood-poison predisposes the system to the arthritis, just as we may suppose the poison of enteric fever to render the mucous membrane of the lungs specially vulnerable, liable to be inflamed by slighter morbific impressions of cold. At the same time, there are circumstances usually associated with the genesis of epidemic meningitis which justify us in using some hesitation before we dissociate the production of the rheumatism from that influence of cold which can and does usually excite it. The influence of season in the production of this epidemic disease cannot be overlooked, nor has it been. Hirsch, as quoted by Mr. J. N. Radcliffe, even suspects that some influence of this kind is connected with its cause, though other factors are necessary; and some of these are more active in consequence of cold and inclemency of weather. After the first shock of the disease, various complications besides rheumatic inflammation, which we are accustomed to see as the result of cold, often make their appearance. Thus, there are often herpetic eruptions, and also lung inflammations, such as pleurisy, bronchitis, and pneumonia. From the occurrence, therefore, of rheumatism in a disease whose very origin may perhaps be partly due to variations of temperature and moisture, and which certainly occurs more frequently when such are specially active, no very powerful argument can be derived in support of the blood-origin of the arthritis. On the other hand, we have here another instance of the association of rheumatism with other ordinary inflammations, and also of a modification of the blood, or the cause of that modification, giving a suppurative tendency to the inflammatory process.

f. Erythema Nodosum, and E. Papulatum.—It is doubtful whether we ought to speak of these as diseases associated with rheumatism. The rheumatic symptoms so frequently present, as noticed by Trousseau(c), appear rather to form an integral part of the diseases in question. By some the arthritis has been considered the most important, and the cases have been described as rheumatism complicated by erythema. The joint-affection diminishes from this preponderating importance down to vanishing-point, and this latter especially in cases of *E. nodosum*. The origin of *E. nodosum*, both with and without arthritic pains, is often distinctly traceable to cold; it is often associated, also, with other affections which betray an inflammatory tendency, as conjunctivitis, etc. There is nothing special in this disease; we have all the symptoms of ordinary inflammatory action, which is rarely intense, yet may, but generally does not, end in suppuration or ulceration. There are nearly always present those articular pains which are especially common at the onset of catarrhal affections, and the inflammatory joint symptoms seem rather to be simply a development of the same morbid action to a few degrees further, than of a different nature altogether. The depraved condition of system in which *E. nodosum* occurs is one, also, in which purpura is often developed—so much so, that Professor Schönlein has given to *E. nodosum* the name of "Rheumatic purpura."

With regard to *E. papulatum*, different structures are doubtless affected from those in the above complaint, but that seems to be the chief distinction. The essence of the disease appears to be the same, though the latter seems more intense, for it is attended with severe symptoms more frequently, and with greater arthritis, and cardiac inflammation is more common. In proof of this, we often find the two eruptions together, but *E. nodosum*, the milder, is far more frequently alone than *E. papulatum*, in which the presence of one or two nodes is not at all uncommon.

g. Gout.—I notice this disease, not because some consider rheumatic gout a hybrid of the two diseases, but because there are certain similarities between it and rheumatism, which Dr. Fuller has used as an argument in favour of the existence of a *materies morbi* in rheumatism. Let it be granted that a definite poison has been demonstrated, and that the presence of uric acid or urate of soda in excess in the blood gives rise to paroxysms of gout. The similarity of the symptoms of rheumatism, if it prove the presence of a poison at all, proves too much, for it proves the similarity that must exist between the two poisons in their nature. If that of gout is chemical in its constitution, that of rheumatism must surely be chemical also; and, if so, we ought to be able to discover this as well as the other. This has never yet been done. We may, therefore, without presumption, ask if there is any flaw in Dr. Fuller's argument. Well, it is not quite certain that his premises are correct, that uric acid is really the true cause of gout (*pace*, Dr. Garrod); and even if it be, the general conclusion Dr. Fuller would draw is unwarrantable. Probably the similarities are not dependent upon a single cause; but it should not be forgotten that very similar tissues are involved in the two diseases, and that a predisposition (hereditary or acquired) to inflammation of such tissues is shared by those subject to both; also that the exciting cause is sometimes the same—namely, cold. Such being the case, I would venture to suggest that where this exciting cause acts upon a person whose joints are already irritated by the presence of urates, a local inflammation is set up, which would resemble rheumatism of one joint but for at least two reasons—(1) that the presence of the urates modifies it, and (2) that the inflammation is set up by a less intense exciting influence of the nerves which control that process; hence, that the local condition of the tissues is more influential than in rheumatism. This will account for the inflammation being so localised, especially in first attacks, and for the general freedom of other joints, since less intense impression of cold is required to excite inflammation in the one already predisposed joint than to modify the nerve-influence over many.

(b) Reynolds's "System of Medicine," art. "Gonorrhœal Rheumatism," vol. ii., pp. 959 and 961.

(c) "Clinical Medicine," Sydenham Society's *Transactions*, vol. ii., p. 242, etc.

Having now finished the examination of the natural affinities of rheumatism, what conclusions can we draw? I think we may safely say—(1.) That rheumatic inflammation is not specific. By this I do not mean that there is not a group of symptoms frequently associated together which may be usefully designated by the term "rheumatism," but that the only peculiarity is caused by the greater or less development of one or more symptoms; that the disease tapers off without any change of nature into other diseases which no one considers due to any particular *materies morbi*. (2.) As a corollary of the above, that no special poison is present. For surely a disease which can exist among such various conditions, and is so closely allied in origin and progress with so many simple inflammatory actions, does not require such an explanation. I think I have shown the futility of the arguments in favour of a *materies morbi*, much more of an acid poison, and, *à fortiori*, of the presence of lactic acid. (3.) That the true pathology of the disease is not understood, and that to be successful in the search for this the natural affinities of the disease cannot be neglected as indications of the direction in which we should look. If we trace it thus we shall know as much of the pathology of rheumatism as we have been able to understand of the pathology of inflammation, and know more with every further advance of that knowledge. To endeavour to prove the influence of cold in producing rheumatic fever, and to trace the process as far as we can, are the next steps to which we must address ourselves.

(To be continued.)

ON HÆMOPTYSIS IN CHILDREN, ILLUSTRATED BY TWO CASES.

By Dr. VALD. RASMUSSEN.

(Translated from the *Hospitals-Tidende*, July, 1871, by J. W. MOORE, M.D., M.Ch. Dub., L.K.Q.C.P.I., Ex-Scholar Trinity College, Dublin.)

Among the numerous clinical as well as anatomical peculiarities which characterise pulmonary consumption in children as distinguished from this disease in adults, the absence, or, at all events, the very rare occurrence, of hæmoptysis is one of the most important. Nor is it alone as a preliminary symptom that hæmoptysis is so very infrequent, but also, though perhaps to a less degree, during the entire subsequent course of the disease. All children's Physicians are unanimous on this point, which is doubly remarkable when we reflect on the extreme frequency of the occurrence of the symptom in question in every stage of phthisis in adults. An explanation of this peculiar circumstance has not, so far as I have been able to ascertain, been attempted by any author up to the present—very likely because a reliable anatomical basis from which to set out has been wanting. Since, at the close of this *brochure*, I shall attempt to give an explanation of this circumstance, it becomes necessary by way of preface to communicate briefly the experience of others on this subject.

According to Rilliet and Barthez(a) hæmoptysis is nearly always wanting in the commencement of pulmonary phthisis; and in the almost equally rare instances where it occurs in the subsequent course of the disease, it is all but instantaneously fatal. They admit that they have never had absolute proof of an attack of hæmoptysis in the beginning or during the course of tuberculosis, and whatever they have to say on the subject is derived only from the parents of the youthful patients. In private practice they have never observed this symptom, and but five times in Hospital.

The hæmorrhage took place either in the commencement of the disease, or during its course in the second or third month, or sometimes even later. One child suffered from a first attack of hæmoptysis when the disease had continued for two and a quarter years. The hæmorrhage was not considerable. However, in the case of a girl, aged 14, it recurred in the course of eight days. In the remaining instances it either took place on one occasion only, or returned for the first time several months later. When this happened, as also in the fatal cases, the children were not under 7 years of age. In the latter class, however, there was one exception, the child being 3½ years old.

It is, nevertheless, not quite clear how many cases of terminal hæmoptysis the authors alluded to have seen. They state that they have never found the hæmorrhage to proceed from a cavity, which seems to surprise themselves, as they have yet discovered vessels not completely obliterated running through cavities like trabeculæ.(b) On the other hand, they have in one case seen a suppurating lymphatic gland in the root of the lung perforating the pulmonary artery and causing a fatal hæmorrhage,(c) and in other instances a similar loss of blood occurred with considerable enlargement of the bronchial glands, the pressure of which on the pulmonary artery must, in their opinion, have determined a bronchial hæmorrhage. Still, the cases are not so accurately reported as to enable us to see whether there had been cavities in the lungs or not. And although this appears to have been the case in some instances, yet they seek for the cause of the bleeding in the pressure of the swollen glands. According to West,(d) hæmoptysis is almost without exception wanting in the commencement of the disease. This author observed terminal hæmoptysis in five cases, in only two of which, however, was there a post-mortem examination. Both children were about 5 years old; one was in very advanced phthisis. The author did not succeed in tracing the origin of the bleeding.

Steffen(e) has noticed two rare examples of fatal hæmoptysis in young children. The first of these occurred in a girl, aged 20 months, the clinical diagnosis being set down as pulmonary tuberculosis. The hæmoptysis, which appeared suddenly and with violence, caused death in a few moments. On post-mortem examination there were found a deposition of miliary tubercles, masses of cheesy infiltration, interstitial diffuse pneumonia, and cavities, which, nevertheless, did not communicate directly with the bronchial tubes. These last were in both lungs filled with blood. A closer description of the cavities and their contents is, remarkably enough, deficient in the otherwise very full post-mortem report. The source of the hæmorrhage was not detected, but Steffen supposes that it was situated in the lung, specially in the broken-up tuberculous tissue.

In the second case,(f) the child, a girl, was aged 18 months. She had previously suffered from bronchitis and circumscribed pneumonia. In the beginning of the year 1861, a chronic diffuse pneumonia with tuberculous infiltration became developed, and the morbid process advanced step by step. Late in the evening of March 23, without warning, a considerable hæmoptysis occurred. The blood spurted from the nose and mouth, and the child died a few moments afterwards. An autopsy was not permitted.

Steffen supposes that the hæmorrhage in this instance, as in the former, proceeded from the broken-up pneumonic infiltration.

Hauner(g) has observed hæmoptysis in children on three occasions only, in the Children's Hospital at Munich, since the foundation of that institution. The cases are reported in an abstract form. The children were all over 3 years of age. One suffered from a maculated continued fever (*morbus maculosus*, Werlhof), along with tuberculosis; another expectorated large quantities of pus and blood from an extensive cavity; the third had, off and on, in the course of chronic pulmonary tuberculosis, a "bloody secretion." The two first-mentioned children died; the third recovered. Reports of the autopsies are wanting.

Bierbaum(h) communicates two cases that appeared in older children, and did not directly produce death. In the one instance, a moderately severe attack of hæmoptysis occurred in a previously healthy boy, 12 years of age, after slight precursory symptoms, and returned two days subsequently. He continued to cough, and was short-winded until six months later, when a severe hæmoptysis set in suddenly while he was at play, returning some hours afterwards. The lung disease now made rapid progress, and he died in the course of two years' time without any recurrence of the hæmorrhage. In the second instance, that of a girl, aged 11, the hæmoptysis appeared at an advanced age of the disease; it was very considerable, and recurred to a less extent three days later, after which the lung disease advanced rapidly, so that the patient died in six weeks' time.

Henoch(i) has never seen hæmoptysis set in throughout the entire course of phthisis in young children less than 6 years old.

Vogel(k) has not observed it either in very young children,

(a) "Traité des Maladies des Enfants," 2me édition, tome 3me, p. 687. Paris, 1854.

(b) "Traité des Maladies des Enfants," 2me édition, tome 3me, page 616. Paris, 1854.

(c) This, however, is on the whole an example only of an exceptional form of hæmorrhage. I have never seen it.

(d) "Lectures on the Diseases of Infancy and Childhood," by Charles West, M.D., 5th edition, 1865, page 492.

(e) "Klinik der Kinderkrankheiten," vol. ii., part i., page 1. Berlin, 1869.

(f) *Loc. cit.*, vol. i., page 242.

(g) "Jahrbuch für Kinderheilkunde," vol. v., 1862, page 136.

(h) "Journal für Kinderkrankheiten," vol. i., 1868, page 72.

(i) "Beiträge zur Kinderheilkunde," page 65. Berlin, 1861.

(k) "Lehrbuch der Kinderkrankheiten," page 214. Erlangen, 1863.

and but once in a girl of 10 years of age, when it terminated the disease by death; closer details of the case, however, are not given.

Barrier, Bednar, F. Weber, and Hervieux have never seen phthisis produce hæmoptysis in infancy.

From the above communications, which might in all probability be supplemented by isolated clinical reports, but which, nevertheless, embrace the most important monographical works on the diseases of children, it will be seen—First, that attacks of hæmoptysis are extremely rare in children; and, secondly, that in no case has their point of origin been determined in an anatomical sense.

I have myself had an opportunity of observing two cases, which, at least, merit some attention, partly because they augment the (as yet) rather scanty clinical history of the subject, and partly because the cause of the hæmorrhage was clearly determined in both instances. Moreover, these cases are typical of the two principal forms under which fatal hæmoptysis seems to manifest itself in children during the course of pulmonary phthisis—namely, (1) by the bursting of a small aneurism of a branch of the pulmonary artery running in the wall of a cavity; and (2) by ulceration of that artery from suppuration of a bronchial gland. For the first observation I am indebted to Dr. Hirschsprung, through whose kindness I had an opportunity of making the post-mortem examination.

Case 1.—*Pulmonary Phthisis with Cavities (Chronic Interstitial and Caseous Pneumonia, Peribronchitis, Miliary Tubercles)—Aneurism of a Branch of the Pulmonary Artery, bursting into a Cavity—Depositions of Miliary Tubercle in the Pleura, Spleen, Liver, and Kidneys—Caseous Enlargements of the Bronchial Glands—Tuberculous Ulceration of the Ileum.*

W. L., 3½ years of age, admitted to the Children's Hospital, February 22, 1870. The child was reported to have tided over several illnesses, about which, however, no more precise information has been obtainable. He is an extremely neglected foster-child, of thin, pale, and relaxed appearance, weighing 10,126 grammes (22·32 lbs.). The cough frequent and troublesome, the respiration tranquil. Percussion less resonant over the entire left half of the thorax. The respiratory murmur somewhat weaker than normal, yet universally audible and vesicular in character; large crepitating moist râles over the whole chest. The patient's state improved somewhat during the first portion of his stay in Hospital; the cough and râles diminished, but he continued pale and weakly in spite of a strengthening course of treatment, and a very good appetite for dry food.

May 1.—Weight 9564 grammes (21·08 lbs.). The cough is again more violent, and the child's appearance, if possible, yet more pallid and emaciated; notwithstanding, he is very lively and remains up all day.

His state grew still worse; he began to suffer from hectic (night sweating—the temperature between 104° and 102° Fahr. in the evening—the pulse about 136), and the respiration over the posterior part of the left side became more and more bronchial in character.

June 12.—Last night he sat up and drank his milk, when, at seven o'clock, he had an attack of coughing, which was not, however, severe; during this, bright-red frothy blood burst out of his nose and mouth, and a moment later he was dead.

Autopsy, twenty hours after death.—Rigor mortis had disappeared. The body moderately thin. The subcutaneous adipose tissue scanty. The muscles pale and flabby. The heart of natural size, its muscular structure pale, the valves healthy; in the cavities only some partially coagulated blood. The left lung universally adherent, but readily detached. From the pressure exerted in taking out the viscera, a large quantity of fluid blood escaped from the primary bronchus. Just in front of the middle of the posterior border of the upper lobe a fluctuating area was felt. On making an incision in this situation, a cavity was discovered, extending right into the root of the lung, and filled with thin fluid blood. It was of irregular shape, and equal in size to a small egg. The wall tolerably firm, partly smooth, partly uneven from the presence of small warty-shaped, irregular prominences, which at the plane of incision showed cheesy infiltrations. Into the cavity bronchial tubes opened in several places—some of them being truncated, others, again, resembling eyelet-holes at their extremities. At the bottom of this cavity, close to the root of the lung, was noticed a little fresh projecting blood-coagulum. On removing this to one side, it was seen to project from an opening in a large, somewhat elongated tumour, about half a centimètre in length, which, when slit up, proved to be a slight sacciform dilatation on a branch of the pulmonary artery. It was situated on a branch that came off from the main trunk only one centimètre from its origin. The branch in question, when slit up, had a width of five millimètres. The wall was perceptibly thickened at the place where it projected into the cavity. The opening, from which the coagulum protruded, readily permitted a sound to be pressed in at the side. The edges were blood-stained, attenuated, and likewise sharply defined. The coagulum was altogether the size of a pea; it was continuous with a thin layer covering the interior of the aneurism, and was pale yellow or colourless. Immediately behind the aneurism, where the vessel's calibre, slit up, had a breadth of three millimètres, the efferent branch divided into two branches of about the same diameter, one of which ran deep, and the other more superficially, into a pouch lying at the lower portion of the cavity, in the wall of which the vessel ran as a broad string, with an oblique dilatation of its calibre inwards towards the cavity. The remainder of the lung was absolutely void of air. The plane of incision of a pale grey appearance, of firm consistence. It was composed of a comparatively homogeneous, in places whitish, almost cicatricial tissue, with shapeless yellow particles, of various sizes up to large grains of sand, scattered over it (alveoli, filled with detritus). In a few situations there were larger cheesy portions, which formed centres of infiltration, here and there commencing to undergo a process of breaking down. In the thickened pleura were numerous miliary tubercles. In the right lung similar deposits were met with, and on its upper surface were seen some depressed reddish patches, to which the hæmorrhagic infiltrations in the line of incision corresponded. Close beside these were found numerous indurations, isolated or aggregated, with and without any peribronchitic characteristic. On the other hand, no cheesy infiltrations or formations of connective tissue were observed. In the bronchial tubes of this lung blood was also found, but only in small quantity, and mixed with mucus. This was likewise the case as regarded the larynx and trachea, which were healthy in other respects. The spleen of ordinary size. In the centre of its anterior surface an irregular cheesy infiltration was observed, which extended in an imperfectly triangular form inwards into the parenchyma. Beside it were miliary tubercles, and patches of cheesy infiltration up to the size of peas. The liver large, fatty, with thick edges; an abundant miliary deposit in the slightly thickened capsule; a more scanty one in the parenchyma of the organ. The central portions of the acini shrunken, of a pale red tint; their peripheral parts abundantly filled with fat. The line of incision rather dry, in general pale. The kidneys of ordinary size, pale; in other respects unaltered; only in places a miliary tubercle, as well on the surface as in the structure of the organs. The mesenteric glands as large as pigeon's eggs, with cheesy infiltrations, separated by connective tissue. Just above the ilio-cæcal valve a superficial transverse ulcer, with a miliary deposit in its border and on its peritoneal aspect, was found. The brain was not examined.

Although the information which in this case is procurable touching the course of the disease is but imperfect, yet from the state in which the lungs were found we may very well conclude as to the order of progression in the morbid process. This in all probability commenced with a cellular catarrhal pneumonia, which in the badly nourished child, predisposed thereto, has shown a tendency to a cheesy formation—of only a partial prevalence, however, since in other situations the lymph-like (unnucleated) cells in the alveoli have developed into connective tissue, which again has passed more or less into scleroma. These two alterations have gone on side by side, even so close to each other that individual alveoli or very small lobuli lie separately in the newly formed connective tissue. Lastly, the formation of cavities has resulted partly from the decay of the masses of cheesy infiltration, partly from ulceration (fatty degeneration) of the newly formed connective tissue. Now, just because the shrinking of the latter substance has not been homogeneous, but has been interrupted partly by the patches of cheesy infiltration, partly by the more gelatinous soft particles, the obliteration of the vessels has not occurred—a process which may very well have been attended with peculiar difficulties, as the vessel was so large and was situated almost immediately beside one of the chief branches. The artery has consequently been drawn inwards in the process, made fast in a portion of the wall of the cavity, where the formation of connective tissue has been more abundant, and has here dilated as an aneurism in the same way as in adults. A compensatory hypertrophy of the arterial wall has, indeed, taken place, but still it has not been able to withstand the great intra-vascular

pressure. Beside the aneurism, just as in cavities in the adult, a dilatation of a pulmonary branch was observed.

On the whole, some difference is shown in the circumstances under which the aneurismal formation in cavities takes place in adults and in the case here reported, but that formation was yet, in the present instance, also favoured by the anatomical conditions to a greater extent than these are ordinarily wont to accompany phthisical processes in children—a fact which will also appear from what is to follow.

(To be continued.)

SMALL-POX IN CHINA.

By F. PORTER SMITH, M.B. Lond.

The present epidemic of small-pox in England seems to carry us back to a period in the history of this plague of the human race for which we have had to look hitherto to the contemporaneous condition of countries representing much earlier phases of the history of this disease, and the measures connected with the prevention of the malady as a recurrent pest. For the future, we would suggest that this malady, whatever may have been the grounds of its previous insignificant cognomen, should be promoted to the dignity and style of the "great-pox."

Small-pox is called the "bean disease" in the Chinese language, from the resemblance of the vesicle to a small bean or some other form of pulse, a kind of food very largely grown in China. The disease dates from the reign of the first Emperor of the (Eastern) Han dynasty, Kwang Wu, who reigned A.D. 25—28. It is said to have been imported from some portion of Central Asia, or from some part of South-western China now included in the nominal empire, by some Chinese troops returning from a foreign campaign. This adds another instance to the important list of diseases propagated by armies in ancient and mediæval times. Inoculation has been practised amongst the Chinese for a thousand years or more, showing that the disease must soon have clamoured for some interference, even at the hands of an Eastern people, strong in their belief in fatalism. This latter failing is attested by the facts that the disease is called the *Tien-hwa*, or "heavenly flower," and that the malady has been deified under the name of "Holy Mother of Small-pox." Temples are erected in every part of the empire in honour of this goddess, and every family visited by the disease sends some worshipper with offerings to the shrine of this old hag.

In order to avoid any offence to her, the disease, one of the most horrible of all afflictions, is spoken of as the "felicitous circumstance," or some other periphrastic or propitiating term. The earliest work on the disease is a kind of treatise called the "Wan-jin-shí-tau-chin-lun," first published in 1323. Several other works have been written on the disease; some on inoculation. It is curious that in Chinese the malady is called *Hwa*, "the flower," the equivalent of the word *exanthema*.

The Chinese believe that the small-pox can be diminished in frequency and severity by a judicious system of diet on the part of the expectant parents of children, and by the adoption of a regimenal regulation of the habits, feelings, etc., of those who wish to produce a progeny free from such morbid proclivities. From some of the remarks on this point it is evident that hereditary syphilis must have been confounded with small-pox. The early history, in particular, of this epidemic disease has been much mixed up, as well, with that of plagues and pestilences akin to those of Europe in the middle ages. A later importation of the disease from Europe is said to have occurred, but without much proof. The Chinese inoculate at the spring and winter, but the latter is the time preferred by the general population for undergoing the perils of this mischievous and unsatisfactory substitute for the Jennerian operation of vaccination. The pustule from the small-pox patient is introduced in the dried state into the nostril of the person to be infected with the secondary disease, as one of the methods of inoculation. By the regular practice and repetition for ages of this operation, the small-pox has undoubtedly been robbed of some of its primal virulence. But this has been done at a fearful cost, for now and then the very worst forms of the disease are met with amongst the cases of inoculation, or in the neighbourhood of such carriers of the pestilence. Frightful pitting, horrible cicatrices resulting from loss of tissues by sloughing, and blinded eyes prove the futility of such a compromise with this enemy of the human race. Not until 1805, when Alexander Pearson, a Surgeon of the Honourable East India Company a Canton and Macao, introduced the practice of vaccination amongst the natives of these two Chinese towns, did the Celestials begin to do battle with the "heavenly flower" at all successfully. Sir George Staunton translated a small work on the practice of vaccination, written by Pearson, and it was published in 1805, with the title of "Tai Si Chung Tau K'i Fah," or "The Wonderful Method of Inoculation from the Great West." This is now a rare tract, but has been the means of extending, very gradually, over the whole Empire of China a knowledge of the subject. More has been done by Cantonese pupils of Pearson, who, having learnt the practice from him, have in turn had their own disciples. The practice is a money-getting one. The origin of the theory and plan as from foreign shores has been carefully suppressed; and as the Cantonese are a roving and enterprising race, the operation is performed everywhere. The temples are often turned into vaccination stations, and a regular announcement is made of the days for attendance. Subscriptions are raised by the people of the tything to pay the expenses, and the whole thing looks well for what is called heathenism. Private Practitioners make a speciality of the operation, just as they do of the small-pox itself and the measles. Four or more punctures are made in the arm with a rude lancet, and the lymph is taken from a fresh arm. The course of the vesicle is somewhat shorter, and much less satisfactory than in European practice; and a large proportion of the cases professed to be vaccinated fail to show any cicatrix at all. A small fee is paid to the Doctor on operating, and the child is seldom brought back to be seen. The virus has evidently become weak, and one of the best modes of helping on the business is to supply the most skilful operators with fresh lymph and copies of Staunton's work.

Any efforts at vaccination by foreign Medical men in China are invariably met with opposition from the native Faculty, whose craft is thus endangered. Idle rumours are spread about the great demand for children's eyes, etc., and the whole scheme collapses. In Shanghai, where cases occur every year amongst the foreign community, the Municipal Council has established vaccination stations; and the native Resident Medical Officer of the London Mission Chinese Hospital attends at a station in the native city provided by the Tautai. Nothing can be learnt by us from the treatment by the Chinese Faculty of the small-pox. They give alkanet root and many other vegetable substances in the form of a decoction to bring out the eruption, an object generally secured.

Now that the telegraphic wire has connected China with England, the news of the spread of small-pox in this country must be breaking upon the Celestial mind. In a short time it may be expected that some benevolent Chinese merchant will send Chinese vaccinators to England, ignorant of the fact that we once possessed a knowledge of this forgotten art!

REPORTS OF HOSPITAL PRACTICE

IN

MEDICINE AND SURGERY.

VICTORIA-PARK HOSPITAL.

CASES OF PARACENTESIS THORACIS.

(Under the care of Dr. PEACOCK.)

(*Continued from page* 248.)

Case 2.—*Empyema and Pneumothorax of Left Side in a Young Man—Paracentesis repeated Three times—Partial Recovery, but Death some time after Discharge from the Hospital.*

G. C. K., aged 22, a clerk, was admitted into the Victoria-park Hospital on November 6, 1866. He stated that his illness commenced with an attack of quinsy at the end of May. At that time, also, he spat some blood, and he had never since been well, continuing to suffer from cough and expectoration at intervals. About a month or three weeks before his admission he suffered from pain at the left side of the chest, which was, however, relieved by the application of a blister. Since that time he had, on several occasions, after fits of severe coughing, expectorated very copiously for a time, not having much cough or expectoration at other periods. When admitted into the Hospital, he was suffering much from shortness of breath, and was greatly prostrated. On examining his chest, the left side was found very much expanded, and there was a marked

fulness in the mammary region towards the sternum. When in the upright position the whole of the left side was remarkably dull on percussion, and the respiratory sounds were entirely absent, except immediately below and above the clavicle, and at the upper part of the chest and to the left of the spine behind. In the latter situation there was a *souffle* heard with the cough, and towards the lower angle of the scapula the voice was markedly ægophonic. When in the recumbent position the sound on percussion in the mammary region was obviously tympanitic, and the relative positions of the clear and dull portions changed with the variations of the position of the patient. The pulsation of the heart was visible to the right of the sternum, at and about the level of the nipple, and the sounds were there loudly audible, while very indistinct in the normal situation. On the right side of the chest the resonance was clear everywhere except beneath the clavicle, where there was some dulness on percussion, but without any rhonchus; the respiratory sounds were elsewhere loud and compensatory. It was evident that the young man had a considerable effusion on the left side, with some air in the pleura; but the precise nature of the case was not clear. From the occurrence at intervals of severe fits of coughing, followed by copious expectoration, it seemed as if the fluid in the pleural cavity might have made its way through the lungs into the bronchi, and the air might have entered the pleural cavity by the opening so produced; but, on the other hand, the history seemed rather to point to a mere chronic affection of the lung, which, leading to a tuberculous abscess, might have been followed by the pneumothorax and empyema. It was evident that the probability of benefit resulting from the evacuation of the fluid would be much influenced as to which of these views was the correct one. As, however, the patient's breathing was very laboured and difficult, and he was suffering from much constitutional disturbance, and was greatly prostrated, it was decided to attempt his relief by evacuating the fluid from the chest. Accordingly the chest was punctured by Mr. Hilton on November 7, and eighty-four ounces of a dark-greenish coloured fluid were evacuated, after which the tube was removed and the opening closed. The first effect of the operation was to afford considerable relief; the breathing became much easier, and there was an improvement in the general symptoms, but the amendment was only of short duration.

The following notes were taken on November 24:—The left side is again fuller than it was, but it is not so large as before the operation. The heart remains displaced to the right side of the sternum. In the upright position there is entire dulness on percussion everywhere except beneath and above the clavicle; but there is a tympanitic sound elicited, when he lies on his back, in the mammary region, and, when lying on the right side, in the axillary region; the respiration being, however, inaudible in the resonant parts. There is scarcely any movement of the left side, and the vocal thrill is there entirely abolished. The right side, on the other hand, moves very freely, and the respiratory sounds are loud and compensatory. He has some cough, but only a little glairy expectoration containing small air-bells. The pulse is quick (120) and feeble; the respirations 24 to 28. He takes his food well, the tongue is clean, and he is in general condition somewhat better since the first puncture.

On the 24th the operation was repeated, and forty ounces of fluid, similar to that before evacuated, were removed.

The following notes were taken on December 2:—The left side of the chest is still somewhat full, but there is more movement than before. The heart's movements are visible over a large space to the right of the sternum. When in the upright position, there is still entire dulness and absence of respiration on the left side everywhere except beneath and above the clavicle, at the cervical and supra-scapular regions, and to the left of the spine. Decided ægophony is heard towards the lower angle of the scapula, and there is occasional slight pleural crackling audible at the end of a forced inspiration. When he lies down the tympanitic sound on percussion is still detected in the mammary region. The vocal thrill is everywhere abolished on the left side. The cardiac sounds are most distinctly heard to the right of the sternum. The breathing on the right side is loud and compensatory. Pulse 120; respiration 28. Not much cough or expectoration.

12th.—The chest is obviously much fuller than before, and the heart is more displaced to the right side. There is entire dulness on percussion over nearly the whole of the left side, though there is some slight resonance immediately below the clavicle and at the lower cervical region. The vocal thrill is also entirely abolished, and there is occasionally a sense of fluctuation on percussing firmly on the side when he is lying down. The respiratory sounds are inaudible except above and immediately below the clavicle, at the lower cervical region, and to the left of the spine. His general condition has improved since the first operation, but he now only maintains his ground, not gaining flesh or strength. His breathing is better, and his cough is less troublesome; he scarcely expectorates at all; but his pulse remains quick and feeble. On the 14th the operation was repeated for the third time, an effort being made, by exerting pressure on the thoracic parietes, to empty the cavity to the fullest extent possible. In this way ninety-seven ounces of fluid of an opaque sero-purulent character were evacuated, after which the tube was again removed and the wound closed.

14th.—The left side of the chest still continues dull on percussion. It is fuller than the right side, but less so than before the last tapping. The heart can still be seen and felt to beat on the right side of the sternum, but the displacement is less than before. The vocal thrill is everywhere abolished, except above and below the clavicle, at the cervical region, and to the left of the spine. The respiratory sounds are more distinctly audible in these situations, and also in the axillary region, than they were. His general condition has improved. He takes his food well, and, though the pulse remains quick, he has almost lost the cough, and has no expectoration.

January 9, 1867.—He has continued to improve since the last notes were taken. There is some contraction at the lower part of the left side of the chest, but the fulness in the mammary region is still very obvious, though it is partly due to swelling of the integuments. There is more movement on the left side. The heart can still be seen to beat to the right of the sternum, but the sounds are most loudly heard to the left of that bone. The respiratory sounds are heard over much wider spaces on the left side at the upper and posterior parts, though still only feebly. The stomachal sound is also elicited by percussion over a considerable space at the lower part. In other situations the dulness remains much as before. On the right side the respiration is loud and compensatory. Upon the whole, he is improved; his appearance is better; he has no expectoration, and, except slightly in the morning, no cough; his breathing is freer, and he has no pain or uneasiness in the chest; but his pulse continues quick, and he does not gain flesh or strength.

30th.—His chest continues to improve, though still very dull on percussion. There is much greater freedom of motion on the left side. It continues in front fuller than the right side, but some of the fulness is obviously integumental. The space over which the respiration is heard above in front, and in the axillary and spinal regions, has considerably extended, though the sounds are feeble, and accompanied by pleural crepitation. Over the larger portion of the chest no respiration can be heard. The heart is still displaced to the right side, its pulsation being visible between the nipple and sternum, and about the level of that body. His general condition continues better; he has scarcely any cough, no expectoration, and is gaining strength.

February 13.—Left side of the chest dull on percussion everywhere except above, but it moves more freely. There is still considerable fulness, but this is evidently integumental; partly, at least, due to the irritation from the application of iodine, which has been freely used. The extent over which the respiratory sounds can be heard is increasing, though the breathing is still very feeble. The heart occupies the same position as before. He is improving in general condition, and has gained some flesh. When first admitted into the Hospital he weighed 9 st. 6 lbs., his height being 5 ft. 8½ in. During the first portion of his residence he lost weight, so that on December 13 he weighed 10 lbs. less than when admitted. He has since recovered the loss, so that his weight is now very slightly greater than when he was first weighed.

The day after these notes were recorded he was discharged from the Hospital, at his own request, with the intention of going to the seaside. Up to this point he had certainly improved both in his general condition and in the local symptoms. After his discharge the amendment was not, however, of long duration. An abscess formed in the seat of one of the punctures, which burst, and left a fistulous communication with the pleural cavity, from which a copious, and, after a time, an offensive discharge flowed. Under this he became much exhausted, and died in about a year after his discharge.

While in the Hospital he took small and gradually increased doses of iodide of potassium, with spirits of nitric ether, and bark and cod-liver oil, and was allowed a liberal diet, with stimulants. The case was not a favourable one for treatment. There was reason to fear that the left lung was diseased, and

that the empyema and pneumothorax were the result of a tuberculous abscess which had burst into the pleural cavity. The precise nature of the case was not, however, clear, and as it was evident that the patient would not long survive if not relieved, it was decided to have recourse to paracentesis. The first effect of the operation was to afford relief, but never to so great an extent as had been hoped; but it may safely be concluded that the patient's life was very much prolonged by the treatment.

(To be continued.)

THE GENERAL INFIRMARY, LEEDS.

Some years ago we gave a general account of the Medical charities of Leeds, showing that in the old Infirmary, with all its defects, much good work was done. The names of the various generations of the Heys were familiar to all; that of Teale was also well known as having contributed to the Surgical reputation of the place. We then showed, and have again to show, that the Heys and Teales of the present day are not one whit behind their predecessors, and that, in their hands, and in those of their colleagues, the reputation of Leeds is in no danger of falling away.

Since we last reported on the Leeds Infirmary practice, the institution has changed its quarters into the new and sumptuous building erected some years ago. This has been described in our columns, and we will not weary our readers with repetition. Suffice it to say that the building is on the pavilion system, and consists of five separate portions built on the slope of a hill, so that two point downwards and forwards, three upwards and backwards, these being connected by the administrative buildings, the one set, however, being separated from the other by a covered space for the use of the patients in wet weather. The glass roof of this erection is, however, so high as to seriously interfere with free ventilation, and constitutes one of the prime defects of the existing structure. The only other place for exercise available to the patients is on a terrace level with the roofs of the front portion of the buildings, which in cold weather is bleak and exposed.

Each of the five pavilions contains two wards, one above the other. The four in the front pavilions contain thirty-two beds each, the six in the after pavilions containing twenty-eight. But besides these there are ophthalmic wards, private wards, and accident wards, which bring up the total to over 300 available beds. Two of the twenty-eight-bedded wards are never occupied. These wards are allotted thus:—One of thirty-two beds for male Medical patients; one of twenty-eight for female Medical patients; the remainder of the beds being as evenly as possible divided among the Surgeons to the Hospital. One ward containing twenty-eight beds is devoted to the diseases of children; but the cases are almost all Surgical, smashings and crushings being lamentably frequent amoug the little things of Leeds. The plan adopted for admitting patients is that each Surgeon takes a week in the course of the month, receiving all who present themselves, and whose cases entitle them to admission, whether they come casually or on recommendation. The great majority are admitted casually; those recommended are received only on Friday, which closes the reception week. From what has been said, it will be noticed that the Hospital is a Surgical rather than a Medical Hospital. This is rendered necessary by the great number of manufactories in the neighbourhood, and the accidents which are constantly happening; but in the Medical wards the cases are carefully selected, and are exceedingly instructive. As a means of education, they are utilised to the utmost, not least by Dr. Clifford Allbutt, who devotes himself most assiduously to the clinical instruction of the pupils in practical Medicine. Under his care were several cases of the highest interest, notes of which we subjoin:—

The first case which seemed deserving of notice was one of a man suffering from mitral regurgitation with dropsy. There was nothing unusual in the symptoms of the case, the point of interest lying rather in the history. The patient (now aged 38) had had rheumatic fever fifteen years previously, and it seems almost certain that the heart-mischief dated from that time, though the dropsical and other symptoms were only of four months' standing. The man had followed a light occupation. Dr. Allbutt said that the interval which elapses in many cases between rheumatic endocarditis and the oncoming of dropsical and such consequences was often a very long one. In 1869 he had a patient under his care who had suffered once from rheumatic fever, in which attack he was informed that his heart had been injured. This single attack had taken place twenty years previously, and until five months ago he had never felt any ill consequences. He had mitral regurgitation, and died soon afterwards. Another case had been under Dr. Allbutt's care, in which a gentleman had had rheumatic fever eighteen years previously. He had then a murmur with the first sound, heard most loudly at the apex, and this had continued ever since, and had been regarded as regurgitant by eminent London Physicians. He had never suffered from it, however, but had been able to hunt, shoot, and take all kinds of hard exercise up to twelve months ago. He then began to have œdema of the legs, and a little fluid in the left pleura, but the œdema was dependent in great part upon varicose veins, and the pleuritic effusion had been preceded by some pain in the side. A favourable prognosis was given, and the patient is now about again and in good health, but liable to œdema of the ankles after undue fatigue or standing. Dr. Allbutt thinks that a knowledge of these cases should lead us to be careful not to give too absolute a condemnation in instances of mitral regurgitant murmur following rheumatic fever. In many cases a loud murmur may mean very slight regurgitation, or it may even be sometimes, as in the case of the country squire referred to, that there is no regurgitation, but only such a roughening of the valves as may cause an eddy in the blood-stream as it leaves the ventricle. When dropsy finally appears it may be that a slight regurgitation has become larger by hydrostatic pressure, or even by very slow cicatrisation extending over a long period, or, again, the value of the muscular walls may slowly become less. Dr. Allbutt, in the last volume of the St. George's Hospital Reports, has given reasons for fearing that compensatory hypertrophies are essentially unstable tissues, and carry within them their own earlier death; and this supposition ought, he thinks, to be affirmed or denied, as it is probably true, not only of cardiac muscle, but of locomotory muscle, of brain tissue, of kidney tissue, and so on, which is a very grave consideration. However, even if this be true, a large hypertrophy is probably more transient than a small one; and in cases of long life with mitral regurgitation, the regurgitation may have been so slight as to demand only a compensation of extra tissue slight enough to be tolerably stable.

The second and third cases we have to note are two of empyema. When empyema breaks through the lung the prognosis is unfavourable. In one of these cases, however, an out-patient, the empyema had first burst through the lung, and again, some weeks later, through the side, this latter opening taking place while the patient was under treatment. The outer opening seemed to relieve him a good deal, and he gained weight and strength. This opening subsequently closed, and he again fell off, but was once more relieved by its artificial reopening by Mr. Hey. The observation of this case determined Dr. Allbutt to endeavour to make an outer opening in the chest of a man now in the house, and in whom an empyema of the left side has burst through the lung. Mr. Teale will, therefore, first explore the chest with a Weiss's aspirator, and will then make a free incision in the wall. The man is very ill, and will certainly soon die unless the operation relieve him.

The fourth case, Mrs. G., is a young married woman, who has suffered from chronic vomiting for five months. When brought into the house she vomited incessantly, sometimes blood; she was also much wasted. Dr. Allbutt, on the day of admission, remarked that the symptoms resembled ulcer of the stomach, but wished to show the class that absolute rest in bed was one of the best means of checking chronic vomiting. Mrs. G. was therefore confined entirely to bed, and no important medicine was given to her. She gradually improved, and in fourteen days the vomiting had almost ceased. In a month it had altogether disappeared. Of course, the careful Hospital dieting, on very small quantities of milk frequently repeated, had much to do with the relief, but not by any means altogether, for before admission the patient had been compelled to take her food by teaspoonfuls, and often to forego even that amount. Moreover, in other cases Dr. Allbutt has tried this kind of dieting with imperfect results until the recumbent posture was insisted upon.

We also notice a case of chorea, in a young man, of three years' standing. There was no rheumatic history, and the voice was chiefly affected. This was most notable in counting 1, 2, 3, and so on; he would constantly have to fall back, and begin again. Sometimes he would seem to have stopped completely, but with a jerk he would be able to proceed. Dr. Eddison, the Junior Physician to the Hospital, had been trying conium largely in such cases. In five cases so treated three got well, but in the others it did no good. One of the unsuccessful

cases we saw and examined. The patient had a rheumatic history, and a double systolic bruit, basic and apical; so that there may be permanent heart-mischief. As, however, the thyroid is somewhat enlarged, there is probably some interference with the ganglionic or vaso-motor nervous system.

Under the care of Dr. Eddison we also remarked an interesting case of aneurism, apparently innominate, but too large to give any hope of relief by a distal operation. Nevertheless, up to a recent date he had suffered comparatively little inconvenience from its presence. Large doses of iodide of potassium had been given without producing any effect whatever on the aneurism.

In the Surgical wards many cases of interest presented themselves. Under the care of Mr. Hey we saw a girl who for some months had been afflicted with an enormous ranula. This Mr. Hey treated by excision. A small transverse incision was made on the floor of the mouth, when, by pressing upwards, the ranula protruded, and was without any considerable difficulty dissected out completely. Its contents were thick and pultaceous, probably from deposit of the constituents of the saliva, unlike the thick glairy fluid commonly observed.

As a mode of amputating, Mr. Hey is very fond of the circular incision with two slight side slits to give more room. One specimen of this we saw in a railway ticket-collector, who had sustained a compound fracture of the arm, and apparently fracture of the base of the skull. The arm was amputated, and when we saw him he was gradually recovering from both injuries. The amputated arm had received no dressing save a covering of the so-called "tenax."

In the same ward we noticed one of the worst specimens of bad Surgery it has been our fortune to see. A man, aged 53, fell through his foot slipping, and he received a small scalp wound behind and above the ear. He applied to a Surgeon, who fastened up the wound, and although suppuration set in gave no vent to the pus. Ultimately the whole of the posterior portion of the scalp separated, and one day fell down on his neck, completely exposing the back part of the skull. When he came to the Infirmary they tried to replace the scalp, and partially, but only very partially, succeeded. At the date of our visit the surface was gradually cicatrising.

Another curious case, under the care of Mr. Hey, was that of a man who, skylarking with some friends, knocked his knee sharply against the leg of a table, which struck against the patella on the inside. The consequence was a complete dislocation of the patella outwards. On examination the bone was found to be outside the external condyle, and with its inner surface parallel to the length of the limb. It was speedily reduced, and at the date of our visit, a week after the accident, he was walking about.

A sample of conservative Surgery was afforded us by the next case noticed. This was a boy who had suffered a severe injury to his knee, whereby the head of the fibula was exposed, and it was a moot question whether the joint was not opened, and amputation would be necessary. They resolved, however, to try to save the limb, and applied to the wound a mixture of resinous ointment and carbolic acid, under which the limb was doing well when we saw it.

With Mr. Pridgin Teale we saw many cases of interest. As is well known, Mr. Teale is an enthusiastic ophthalmologist, and has invented a curette for the extraction of opaque lenses. A case so treated we saw, as well as one in which both lenses had been removed. These cases of cataract Mr. Teale treats in the open ward. This he thinks advisable, not only on account of the better ventilation of a large ward, but also because he thinks a little light does good by stimulating the iris to contract, and so preventing adhesions. The strength of the light he regulates by layers of cotton-wool bound loosely over the eyes. Another very successful eye case happened to be in the Infirmary at the time of our visit, the patient suffering from the effects of a severe accident. In this case there had been symblepharon with considerable impairment of vision; the eyelids had been separated, and a piece of conjunctiva transplanted with the happiest result.

A plan of treatment recently tried by Mr. Teale is worthy of general attention. He had a female patient who was greatly troubled with irritability of the bladder, and a constant desire to make water. Many things had been tried, but she got no better, so Mr. Teale determined to dilate the urethra, in order to make out whether or no there was any ulceration near its neck. Before this was attained, however, he found that the irritability was gone, and the patient cured. This led him to employ forcible dilatation in a variety of cases of the same kind, some of which were promptly and permanently relieved, whilst others were not at all influenced. He believes that a certain number of these cases may depend on causes similar to that of fissure of the rectum, and that the same treatment—namely, forcible rupture of the gut or passage—is that best suited for both. Others of the Surgeons here had adopted the same practice, and one of the cases we saw with Mr. Jessop.

A form of disease, happily now somewhat rare, we observed in the children's ward under Mr. Teale. The patient, a little child, was recovering from typhoid fever when a hard nodule appeared in the corner of its mouth. This rapidly increased in size, and presently became gangrenous. Gangrene appeared on the other side of the mouth, and the too well known cancrum oris revealed itself. When we saw the child its condition was well-nigh hopeless. This form of disease is, we were assured, rare in Leeds.

One of the recently introduced modes of treatment has been extensively tried in Leeds; that is by the aspirateur of Dieulafoy. This has been used in a variety of cases, some of which we may here refer to. Under Mr. Teale we saw the case of a man, aged 23, who was suffering from synovitis of the knee of some years' standing. This by some means or other became acute, and he came into Hospital. Two days after admission, the joint was tapped by the aspirator, and four ounces of pus were removed. The temperature was not in any way affected, and ten days after another tapping was required, when four ounces and a half of fluid were removed; but neither did this afford relief, and a week after the joint was laid open on both sides, and it is now a question of excision of the joint or amputation of the limb. It is but right to add that this mode of treatment has been very successful in many cases of a similar kind; but the rule seems to be, that, if good is not done at the first tapping, there is but little hope of subsequent success.

The same treatment has been successfully employed in other kinds of cases. Thus, in Mr. Teale's hands it has been used for tapping the bladder above the pubes in cases of retention of urine, with great success. A patient we saw had been suffering from stricture, when suddenly retention was superinduced. The aspirator was used above the pubes with immediate and permanent relief. Mr. Samuel Hey operated in the same way in a similar case, and took away eighty-four ounces of urine by its means. In both cases the patient did quite well, although, of course, the permanent stricture was not thus relieved; but in both the individual was enabled to pass his water as before the supervention of retention. In yet another case we saw the same instrument used. The patient was a child under the care of Mr. Jessop. It was suffering from hydrocephalus. The fluid had been removed by degrees. A tapping had taken place at the date of our visit, and eighteen ounces and a half of fluid been thus withdrawn. The needle had been introduced at the anterior fontanelle, and occasioned no disturbance. The size of the head had been reduced, but the child seemed very dull and stupid. The same mode of treatment had been unsuccessfully followed in a previous case, but had failed, owing, probably, to the large quantity of fluid withdrawn at once.

Two cases of what might be called elephantiasis were in the Infirmary. One appeared in every respect a case of true elephantiasis of the leg, of nine years' standing; it occurred in a female, and was under the care of Mr. Teale. The patient had come with the intention of having it removed, but Mr. Teale inclined to deferring any operative procedure. The other was a case of false elephantiasis; it was in the charge of Mr. Wheelhouse. The patient was a boy, and at the time of his admission his leg measured nineteen and a half inches in circumference six inches below the patella; by rest and bandaging it had been reduced to twelve inches and three-quarters when we saw him. In this case there was in all probability plugging of the deep veins, causing obstruction to the return of the blood, and so, in course of time, to solid œdema.

An interesting case was under the care of Mr. Jessop. The patient, a bargee, aged 33, had a fall ten or eleven years ago, owing to his foot slipping. His knee came down on a flat board, and the patella was broken clean across. He tied a handkerchief round it, but never laid up, and, in point of fact, received no treatment whatever. Of course the fragments of bone became enormously separated, yet the man was able to do his work, and could walk five-and-twenty miles a day at a good pace without feeling any inconvenience. In July this year he had a second fall on the deck of his barge, and this time his other patella gave way, which completely lamed him, so that after a little time he was obliged to come into Hospital for treatment. His leg was laid on a back splint and bandaged above the knee; nothing else was done. When we saw it the

fragments were about half an inch apart. The great peculiarity of the case was that no other bones seemed to be particularly fragile. The man's constitution was good. In neither instance had he been carrying any weight, and in neither instance had his knee struck against any other than a flat surface. Mr. Teale is inclined to treat fractures of the patella with rest alone. He is strongly inclined to think that ordinary applications do harm, tending to tilt the fragments of bone so as to bring their upper edges together instead of their fractured surfaces. There was no such case under his care at the period of our visit.

We saw an exceedingly interesting case under the care of Mr. Wheelhouse. The patient, a middle-aged man, had double serotal hernia. That in the right side became inflamed, and a portion of the gut sphacelated and came away, leaving an artificial anus in the right groin. Through this opening everything passed for nine months, when Mr. Wheelhouse resolved on trying Dupuytren's operation for obtaining a passage between the upper and lower portions of the gut. This was had recourse to with entire success, the patient speedily passing a motion *per vias* naturally, and the artificial opening gradually closed. When we saw the case only a small orifice remained, through which hardly any fæcal matter passed.

Close by this patient was another, a man aged 53, with a peculiar condition of foot. When we saw him he had on either foot sinuses extending from the under to the upper surface, not apparently connected with dead bone. He had hardly the characters of the perforating ulcer of the foot, and as the main arteries were rigid, insufficient blood-supply had probably something to do with their existence or persistence, although it was clear that they did not depend on this alone.

In a place like Leeds compound fractures are only too common, and we were interested in the mode of treatment adopted here. In some of the last cases we saw this had been absolutely *nil*. In one we saw with Mr. Wheelhouse, a child who had come in with a very bad compound fracture of the leg, the limb was put in a splint; no application whatever was made, and the wound healed admirably. A boy, under the care of Mr. Jessop, had sustained a very bad compound fracture of the arm, insomuch that the limb was almost detached. Mr. Jessop cut off the ends of the bones, and pegged them together with ivory pegs, thus providing a splint; the limb was lightly covered with oakum, and all went well. When we saw the boy the arm was healed. A case somewhat alike we noted under the care of Mr. Teale. Here the fibula was broken and the joint opened, yet motion was perfect. Many amputations we saw treated in similar fashion.

Unfortunately, it must not be concluded from these statements that Leeds Infirmary is totally free from those plagues of Surgeons, pyæmia, gangrene, erysipelas, and phagedæna. At the time of our visit there were no fewer than six cases of phagedæna in the Hospital, only one of which, however, was said to have originated in it. In one case Mr. Jessop had amputated the thigh by the supra-condyloid method, and the patient was almost well. He was sent to the Convalescent Hospital at Cookeridge, where the stump was speedily attacked with phagedæna, and he had to be brought back to the Infirmary. When we saw him he was recovering rapidly. Many of the cases of phagedæna had originated at this Convalescent Hospital—it was said, owing to the use of sponges in that Institution; in the Infirmary loose cotton-wool alone is used. Other cases were said to have occurred in the town of Leeds itself, and in one instance which we saw the malady had originated in a distant village, in one of the healthiest parts of Yorkshire. It seemed, also, that the infection remained attached to the individual long after he was well himself, for in one instance a patient who had been confined to a private ward, a fortnight after the phagedæna had disappeared, communicated it to a patient in an adjoining bed after being readmitted to the general ward. As a remedy for this troublesome affection, bromine had been tried, but found wanting. That which succeeded best was introduced by Mr. McGill, the Resident Medical Officer. This consisted in free incisions at the edge of the sore, and the promoting of the bleeding. Accidental bleeding has often been known to arrest such morbid processes—as, for instance, when the femoral has been perforated.

A very curious case was in the female ward under Mr. Jessop's care. The patient, an elderly woman, had an ovarian tumour. Removal was proposed, when the swelling burst into the peritoneum. Curiously no disturbance followed, the only thing remarkable being an unusual discharge of urine. After a time the fluid reaccumulated, and she came into the Infirmary, when the same thing happened over again. In neither case did there appear to be any attempt at peritonitis.

Under the care of the same gentleman we saw a clever Surgical case. A man came with an ulcerated bunion, which had burrowed so deeply as to affect the metatarso-phalangeal articulation of the great-toe. On the other foot was a similar sore, but not so far advanced, but its tendency was clear. In either instance Mr. Jessop excised the joint, and at the time of our visit the man was almost well.

The same gentleman pointed out to us a plan he had recently adopted of treating piles—that was, by twisting them off. A similar method had been tried with the pedicle in ovariotomy, in castration, etc., and found very successful.

One of the peculiar lines of practice seen at Leeds is the treatment of crushed hands. The general rule is to remove all it is impossible to save, but to pinch off these all the skin attainable, and to apply it where most wanted on the stump. In two children, however, Mr. Wheelhouse had left nature to take its course, to see how much would come away, before meddling with the mutilated members.

Of amputations we only noted one rectangular stump, which certainly was a beautiful one. It was the work of Mr. Wheelhouse. Supra-condyloid amputation had also been tried very successfully. Mr. Jessop has twice excised the head of the thigh-bone subcutaneously, and has been able to retain motion.

We have but little more to add. We observed that the plaster-of-Paris bandages were made of muslin, and were kept ready for application; that the galvanic apparatus in the Infirmary was good, consisting of Muirhead's constant battery (made by Elliott), Foreaux's continuous current battery (made by Weiss), and the now well-known Stöhrer (the latter Dr. Clifford Allbutt has used with great good effect in the treatment of infantile paralysis); and that in the treatment of secondary syphilis enormous doses of sarsaparilla were given with great good. Finally, we beg leave to return our thanks to all the officers for their courtesy and kindness; in especial these are due to Mr. McGill, the Resident Medical Officer.

LIVERPOOL SOUTHERN HOSPITAL.

IDIOPATHIC TETANUS—RECOVERY—SUBSEQUENT DEATH FROM EXHAUSTION.

(Under the care of Dr. CAMERON.)

[Reported by Mr. LEIGH.]

ELIZABETH L., aged 61, of no occupation, was admitted January 25, 1871, under the care of Dr. Cameron, suffering from trismus.

Previous History.—She first perceived slight stiffness in the muscles of the jaw on the 22nd, which increasing, she applied for treatment as an out-patient on the 24th, but refused to remain then, promising to come in next day, when she was admitted. She had no wound or injury of any kind whatever, and the only cause she could assign for the disease was exposure to cold and want.

On admission, the muscles of the jaw were considerably contracted, and the mouth could only be opened for half an inch. The sardonic grin was present. The rest of the body was unaffected. She had a slight cough. Pulse 88, respirations 32, in the semi-erect (or sitting) posture. She was pale and emaciated.

Treatment.—Two grains of calomel and half a grain of opium were ordered every second hour, and mercurial ointment was rubbed into the armpits and thighs every two hours (this method of treatment having proved very successful here in traumatic tetanus, four recoveries occurring in nine cases). The gums being affected, next day the mercurial treatment was discontinued. Bronchitis (in a moderately mild form) having now supervened, a sinapism was applied to the sternum. Tincturæ belladonnæ was also given in eleven-minim doses every four hours, which dose was increased to twenty-two minims in two days. As no sleep was obtained, ten grains of pulv. ipec. co. were given every night.

By this time (the 29th) trismus was very complete, and opisthotonos well marked. The left leg was perfectly stiff, the patient not having power to bend it; the right leg was not quite so much affected. The abdominal muscles were also rigid. The bronchitis had now become general, and, owing to the spasmodic contraction of the muscles of the chest, and the consequent difficulty of expectorating, gave rise during the entire illness to considerable aggravation of her sufferings and to great dyspnœa. Pulse 124, respirations 34, semi-erect posture. As much nutriment as could be taken was given in the form of eggs, beef-tea, milk, etc., and eight ounces of whisky in twenty-four hours. Food not being easily taken by the mouth,

nutrient enemata were given, but not being retained were discontinued.

On the 30th slight delirium was present. The belladonna was omitted, and five grains of carbonate of ammonia and twenty-five minims of spirit of sulphuric ether given every two hours. Liq. epispasticus was also applied over the spine for about eight or nine inches in length.

31st.—Trismus less marked; cannot sit forward; great thirst. A febrile attack occurred in the evening (at 6 p.m.) simulating ague, consisting of cold, hot, and sweating stages, the last stage being of some hours' duration.

February 1.—No sleep; febrile attack at 6 o'clock p.m., as yesterday. Spasm very violent, nearly throwing her out of bed. Pulse, 100; respiration, 40.

4th.—Slight stridor from laryngeal spasm; voice weak and hoarse; dyspnœa severe; pulse feeble. The temperature was 101½°, and was never very high during the whole course of the disease. She has had the febrile aguish attacks each evening at nearly the same time. Camphor ordered in two-grain doses every two hours.

7th.—Respiration very rapid and spasmodic—62 per minute; pulse 112; trismus and spasm generally diminished.

10th.—Cough troublesome; slight evening febrile exacerbation; pulse 112, and respiration 50.

After this she kept steadily improving. She ate well, slept tolerably, the tongue cleaned, the pulse and respirations fell, and her condition was such as led us to hope for a favourable termination.

On the 28th the spasm had quite left her. A large bedsore had formed on the lower part of the back, and another on the right hip, and the change which subsequently occurred was ascribed principally to the depressing effect of these on the system. The sores slowly improved under treatment, but the appetite diminished, and in spite of quinine, iron, and stimulants, she sank and died from exhaustion nearly three weeks after all cessation of spasm, and more than six weeks after it had commenced to decline.

She was very thin and weak on admission, having suffered hardships and deprivation of food; and this, together with the depressing effect of the disease, the small amount of food capable of being taken while the spasmodic dysphagia lasted, and the bedsores, caused her death.

Post-mortem Examination.—Brain and spinal cord perfectly normal; lungs congested; bronchial tubes containing thick viscid mucus; other organs healthy.

Remarks.—The febrile intermittent evening exacerbation was a peculiar feature in the case, and had no history to account for it. The bronchitic affection of the chest, and the muscular spasm, which rendered expectoration difficult, caused great aggravation of the suffering of the patient.

What becomes of the Doctors.—Terra del Fuego has been traversed by Lieutenant Masters, R.N., who has discovered that the natives believe in devils, and that they are the departed spirits of members of the Medical Profession. The main object of their religious ceremonies is to keep these devils at a distance from them.

The Prevention of Cholera.—At a meeting of representatives of the various districts abutting on the Thames, held on August 25, at the office of the Medical Department of the Privy Council, No. 8, Richmond-terrace, Whitehall, the Mayor of Gravesend in the chair, the following resolutions were unanimously agreed to:—"1. That this meeting of representatives from the various boards and districts abutting on the Thames recognises the advisability of a joint action in appointing a sufficient staff of officers for the inspection of shipping, for the provision of the necessary Hospital accommodation in cases of cholera, and for the disinfection of shipping and infected articles, under the recent Orders of Council. 2. That application be at once made to the Government for the use of one of her Majesty's ships, to be used as a Hospital, below Gravesend, for patients suffering from cholera on board ship. 3. That this meeting forms itself into a conjoint Committee, for taking the necessary action for the inspection of shipping on the River Thames, and to adopt such measures for the treatment of persons affected with cholera and to prevent the spread of the disease, and to take such other measures, as may be deemed needful. 4. That the following gentlemen form a Sub-committee:—Thomas Troughton, Esq.; G. S. Pedler, Esq.; W. P. Jackson, Esq.; J. Lloyd, Esq.; G. L. Shand, Esq." Dr. C. Meymott Tidy was requested to act as Secretary.

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Medical Times and Gazette.

SATURDAY, SEPTEMBER 2, 1871.

SCIENTIFIC WORK, PURE AND PROFESSIONAL.

It may be doubted if in these days scientific work is pursued in precisely the same spirit as formerly, inasmuch as of late years the general public has performed a new and very important part in approving or disapproving the labours of scientific men. Popular applause may be of advantage to some scientific workers. It encourages them to work, and, in some cases, rewards are conferred which are not altogether unsubstantial. The most ardent scientific spirit must feel pleased when he finds that a number of persons are interested in work which has been of most absorbing interest to him.

But the public has its own idea of the sort of science it desires to have, and is as ready to find fault as it is to praise. If the subject is dry or difficult, and more especially if the lecturer or author seems to be dull, the public soon shows its disapproval and dissatisfaction. Nor is there much difficulty in discerning the sort of science the public requires in these days, and probably means to have, whether scientific men assent or oppose. Neither is there any doubt of the opinion the public has formed concerning the duties of a scientific teacher, and the manner in which he ought to teach. The public will listen graciously, but it must not be bored too much with details. Although it is not difficult to please the public in search of scientific information, it is, however, a very grave question how far the meeting of the demand is of advantage to science, or consistent with the sort of life a scientific investigator should lead.

For several years past we have seen one scientific man after another vying with the merely popular lecturer in endeavouring to make his matter palatable to his audience, and in some instances the pabulum has been so highly spiced, that the actual food has been quite lost in the quantity of condiment employed to give it flavour. After attending some of the lectures last year at a highly popular institution, we were constrained to ask ourselves what had been taught. There were overwhelming illustration, flashes of light, beautiful colours, the brightest illumination, and all described in most carefully chosen words and sentences designed to delight the ear and excite the interest; but what was the object of all the charming talk and work? Was it to please, or was it to teach? The eye and the ear had been appealed to with marvellous force, without the attention having been overtaxed or the understanding wearied. Good-natured critics would feel satisfied that they had spent a very pleasant hour, and thankful to Professor —— for all the trouble he had taken to provide them with so much amusement and instruction. At

many a dinner-table the discourse would be talked about as an event of the season, and the lecturer spoken of as a distinguished person, whom everyone should hear and see before leaving town. But we cannot help feeling that the matter is serious, for not only have scientific men gone in for popular applause, but they have sought to make the public the judge of the merits of their scientific work. Instead of any new facts discovered being discussed in scientific circles and in societies and in journals devoted to science, the observations and statements have been repeatedly published, and in different forms, in many of the public journals. A word of praise in the *Times* is worth more than all the favours all the scientific journals have to bestow. If two or three leading papers comment favourably, what matters it if half a dozen obscure periodicals carp and find fault, and object to the scientific matter as well as the very taking manner? Nay, what does it signify if the matter was of little real importance provided that the dress which set it off was becoming, and by exciting general admiration gained for its author notoriety and praise. If the matter was the veriest rubbish that could be served up, had it not been the means of gaining for science some public approval, of promoting the diffusion of scientific ideas of some sort? Is it nothing that a fragment science should be brought under the notice of a certain number of persons distinguished for their birth, for influence, for the incomes which they spend, and for the size and situation of the houses in which they live? Is it not well that science should be smiled upon, and is it not meet that hard-working, thoughtful, scientific men should be complimented, and have the advantage of the patronage of the wealthy and the great?

The race after public notoriety has not, however, affected many of the members of the Profession who devote much of their time to scientific research. There have been indications of jealousy on the part of those who prosecute science only, towards those who, besides devoting themselves to scientific investigation, are also engaged in active practice. Purely scientific men have not unfrequently spoken disparagingly of the scientific work conducted by members of the Medical Profession, and in their writings have ignored researches, the results of which it might have been inconvenient to refer to. Not long since we perused several articles in a contemporary, the object of which seemed to be to disparage Medical science and advance what was regarded as pure science; and it is not uncommon to find scientific work praised if it emanates from a scientific man, and ignored or spurned if it comes from a Doctor. For centuries past, however, science has been advanced by members of the Profession, and no men have ever more thoroughly displayed the real scientific spirit, and exhibited greater patience, skill, accuracy, and devotion than Medical Practitioners. Nor, in many instances, has their zeal abated with their years. In their hands the purity of science has been preserved. Independent of popular applause, regardless of public notoriety, a Professional man can pursue his scientific work without ostentation and without anxiety. He need be in no haste to publish, and he can have no object in gilding the facts he discovers so that they shall please the unlearned or amuse the torpid. We trust that the younger members of the Profession who are engaged in teaching, and who are looking forward to practising as Physicians and Surgeons, will see the importance of following the great example of so many of their predecessors, and will zealously prosecute some branch of science in a thoroughly scientific way. Let them not listen to the false arguments of those who seek to restrict natural knowledge to a caste. So far, science has been free to all, and in England, as is well known, some of our most distinguished scientific men are at the same time engaged in some very different calling; and it is most advantageous to British science that this should be so. Without independence, no branch of science can be successfully prosecuted, and independence can be gained only by not having to live upon science. Though the calls upon the time of a Medical Practitioner are often very serious, we all know that Professional work is very intermittent, sometimes affording ample leisure for scientific pursuits; while, during the early part of our Professional life, there are several hours in each day which can be devoted to steady work, without in any way trenching upon practical Professional studies. In this way it is in our power to further scientific investigation and to promote the diffusion of a knowledge of nature. Being independent, we may work for the work's sake; and there will be little inducement to court the applause of the public, or to waste our energies in dressing up what we have to teach, so as to excite and amuse the listless, and gratify the indolent languishing for phenomena.

THE THIRTEENTH REPORT OF THE MEDICAL OFFICER OF THE PRIVY COUNCIL.

Last week we drew attention to the new and valuable researches by Dr. Sanderson into the "origin and distribution in water, and the circumstances which determine the existence in the tissues and fluids of the human body," of those infinitesimal living forms which have been supposed, rightly or wrongly, to play at least some part in the production of many of the diseases to which flesh is heir. Dr. Sanderson's paper, it will be remembered, appears as an appendix to Mr. Simon's Thirteenth Report addressed to the Lords of the Privy Council, and we this week invite the attention of our readers to the Report itself, apologising for having treated them as economical schoolmistresses are in the habit of treating their charges—giving them the pudding first, and reserving the—we will not say more weighty, but less attractive—*pièce de résistance*—until afterwards.

Mr. Simon's Report is written with his usual felicity and grace of diction, and contains matter of great public and Professional interest, but it cannot be said to be a cheerful document. It treats chiefly of projects which had either ended in disappointment and disaster, or of others which, since its publication, have also failed. It is divided into sections, several of which deserve some notice. The first contains a statement of the epidemic diseases which prevailed amongst us in 1870—relapsing fever and scarlatina—and notes the rise of the epidemic of small-pox in the early part of the year, which, by its end, had at least in London acquired a severity beyond any recent experience. As our readers have been kept fully informed as to the progress of these epidemics, we pass on to the second section, which relates to the applications made to the Medical Department of the Privy Council by local authorities on questions of common sanitary administration. During the year 1870 there were 200 of these, of which sixty-nine involved inquiry on the spot by a Medical inspector. The communications generally referred to the local prevalence of dangerous infectious diseases, and the inquiries instituted by the Medical inspectors revealed "conditions in no case satisfactory, and very rarely other than of the grossest local neglect." Mr. Simon goes on to notice the inadequacy of the then staff of Medical inspectors for the amount of work devolving on the department, and to urge the necessity of an increase of that staff, for which increase a proposal had been approved by the Lords Commissioners of the Treasury, and has since, we believe, received the sanction of Parliament.

The third section refers to the regulation and superintendence of vaccination during the year, and contains a statement that the awards of money to meritorious public vaccinators amounted altogether to £5685 8s.

Section IV. contains in a few sentences the history of the Government Medical Reform Bill of 1870, the proceedings connected with which the Medical Officer of the Privy Council candidly acknowledges formed a large share of the work of his department. Mr. Simon writes—

"On April 8 the Lord President introduced in the House of

Lords a Bill to provide for the object in view; and on July 7 this Bill, somewhat modified, but with no essential change, as the result of its discussion in the House of Lords, had its first reading in the House of Commons. Here, unfortunately, there was such pressure of other public business that the Bill could not till long afterwards be brought under consideration; and when at last its turn for consideration had arrived, the end of the session was so close that no measure requiring much discussion could be considered. In this state of the case claims were put forward for the introduction of a new and very controversial subject-matter into the Bill; and as the promoters of those claims (which related to the constitution of the General Medical Council) would not consent to postpone them for consideration to the present session of Parliament, the Minister in charge of the Bill was of course obliged to withdraw it."

Now, to the statement that the Bill left the House of Lords "somewhat modified, but with no essential change, as the result of its discussion in the House of Lords," we take grave exception. That the view which we—in common, as we believe, with most moderate but real Medical reformers—took of the effect of Lord De Grey's disastrous weakness in listening to the representations of certain of the universities, and in permitting those universities and other of the examining bodies to grant degrees and diplomas to persons who had not passed the prescribed examinations or been registered under the Act, was no merely sentimental one may be argued on Mr. Simon's own evidence, who, in an official note which appears in the appendix, writes—

"The universities which claimed this exemption had perhaps not duly considered what conflict of law and common sense it might popularly appear, that, in a country where the most illiterate and unskilled of unregistered persons are not as such prohibited from practice, a man legally holding a Medical degree, given (and perhaps the highest which could be given) after examination by an university of the United Kingdom, might be under penalty for practising his Profession. Nor, perhaps, had they fully seen how difficult it would be for courts of justice in case of need to enforce so paradoxical a law, or how probably this partial exemption, if it were granted, would tend to perpetuate just such by-ways into the Medical Profession as the Bill had for its main object to close."

After this condemnation of "so paradoxical" a law, he proceeds to excuse it on the ground that there was no alternative but to yield to the wishes of the universities, for reasons "which need not here be entered on"—a convenient formula for avoiding the confession of weakness on the part of those who had charge of the Bill. But he goes on to charge persons who represented the change made in the Bill to be a cardinal one with "immeasurably overrating" its importance, although in the same sentence he allows that that change rendered the Bill "logically less complete in its subject matter," "therefore less popularly intelligible, and less susceptible of successful working as law, than it aimed at being." After this confession we think the charge of immeasurably overrating the importance of the change falls to the ground. The fact is that the Bill was degraded from a strong, logical, comprehensive measure to a weak, illogical, and partial one, by striking out the clause which compelled all aspirants for Medical diplomas to pass through one portal into the ranks of the Profession. We believe that nobody at first was more impressed with this fact than the original framers of the Bill, and we can only surmise that the disposition to (in our opinion) immeasurably underrate the effect of the omission of Clause 18 has been a growth fostered by the official atmosphere which surrounds them.

Clause 5 refers to the working of the Pharmacy Act, and here we have the foreshadowing of another Parliamentary failure. Mr. Simon writes—

"I regret to report to your Lordships that the power which, for the public protection, the first section of the Act vests in the Pharmaceutical Society, to prescribe (with consent of the Privy Council) regulations as to the keeping, dispensing, and selling of poisons, is still entirely unexercised. I believe it to have been by an accidental oversight in legislation, that, while all other powers to be exercised for public purposes by the Society under the Act were vested in the Council of the Society, the language of the first section vested in the Commonalty, and not in the Council, the very important power which that section confers, and to which my present observations relate. It is perhaps not surprising that a large body of tradesmen should be slow to take the initiative in imposing even the most reasonable penal restrictions on themselves. But I have to submit to your Lordships, as a fact which you may deem deserving the consideration of Parliament, that this non-fulfilment of the Society's duty, to make rules against dangerous slovenliness in the keeping, dispensing, and selling of poisons, is a breach of the implied contract under which the Legislature in 1868 gave powers and privileges to the Society."

We all know the fate of the Bill which these sentences were intended to introduce. The combined efforts of the trade proved too strong for Mr. Forster and his colleagues, and dangerous slovenliness in the keeping, selling, and dispensing of poisons is as likely to be rife as ever. For ourselves, we have no great faith in the efficacy of Government inspection of trading operations, and we have always doubted the value of the Pharmacy Act as any bar to an improper sale and use of poisons. But we think that the Pharmaceutical Society, which had special privileges granted to it in order that greater public safety might be insured, is bound, while it enjoys those privileges, to act not merely up to the letter, but to the spirit, of the Act, for the protection of society.

The last clause refers to the labours of Drs. Sanderson and Thudichum in pathological investigation. Of Dr. Sanderson's work we have already spoken. An account of Dr. Thudichum's researches, which would lose by fragmentary publication, is postponed until the results of 1870 can be extended by the present year's work.

The conclusion of the Report sets forth in eloquent terms the evil results which are accruing to the population of this country from the unchecked prevalence of preventible disease and the unamended state of the sanitary laws. Mr. Simon tells the Lords of the Privy Council that the deaths which occur in this country are fully a third more numerous than they would be if our existing knowledge of the chief causes of disease were reasonably well applied throughout the country. The effect of this waste of human life, the train of physical and moral evils which disease and death bring with them—suffering, deterioration of race, poverty, and crime are delineated in striking terms. He urges that—

"At the present time, when popular education (which indeed in itself would be some security for better physical conditions of human life) has its importance fully recognised by the Legislature, it may be opportune to remember that, throughout the large area to which these observations apply, education is little likely to penetrate unless with amended sanitary law, nor human life to be morally raised while physically it is so degraded and squandered.

"The above various considerations, taken together, seem to me to invest the subject which I am bringing under your Lordships' particular notice with a degree of national importance to which very few subjects can pretend. Its relative position among such subjects is not a point on which I would presume to speak. But, considering the trust which is reposed in my office with regard to this great national interest, I cannot in too strong terms express my official knowledge that it most urgently needs the attention of the Legislature. And I venture to hope and believe that your Lordships' full cognisance of the case will lead you to accord to that conclusion your authoritative sanction and furtherance."

With this Report before them, the present Government cannot plead that a necessity for extended sanitary legislation had not been brought prominently under their notice. But the health of the people is of secondary importance when compared with Army Purchase and the Ballot! Cholera is making its way towards us, and may probably get a footing on English soil before honourable members return from their holidays. When it comes, we shall probably hear the epidemic spoken of as another *misfortune* of the Government!

TOBACCO SMOKE.

Some new researches of a highly interesting nature on tobacco and tobacco smoke have been recently made by Drs. Vohl and Eulenberg (*Vrtljhrsschr. f. gerichtl. Med.*, xiv., p. 249), which will, if confirmed by other observers, tend to revolutionise many of the views held at present as to the influence of smoking on the human economy. The paper, after an elaborate *résumé* of all that was previously known as to the chemical composition of tobacco in its various forms, and of the products generated by smoking it, is divided into three parts, the first of which treats of the chemical composition of commercial tobacco for smoking, for chewing, and snuff; the second contains the results of an investigation of the products generated by the combustion of tobacco during smoking; and the third describes the physiological effects of the bases extracted from tobacco smoke.

Commercial tobacco for smoking purposes was invariably found to contain nicotine, amounting sometimes to 4 per cent. or more, whilst tobacco used for chewing, and snuff, were found to contain only minute traces of that alkaloid; so that nicotine poisoning from chewing or snuffing would appear to be very problematical. The authors state that, as a fact, no such cases are on record.

Among the gaseous products given off during the smoking of good tobacco and cigars there were found oxygen, nitrogen, marsh gas, and carbonic oxide, besides the more readily condensible gases and vapours—sulphuretted hydrogen and hydrocyanic acid; and occasionally sulphocyanic acid, this last being produced at a later stage by the action of sulphuretted hydrogen on hydrocyanic acid. The acid and non-basic products formed are—formic, acetic, metacetic, butyric, valeric, and carbolic acids; creosote; perhaps caprylic and succinic acids also; the latter from fermentation of the malic acid, well known to exist in the green tobacco plant. There were also a solid hydrocarbon of the formula $C_{19}H_{18}$, and a liquid hydrocarbon of the benzol series. The basic products of the distillate were, however, the most interesting. *No nicotine could be detected among them.* Thus the experiments of Zeise are confirmed, and the effects of tobacco-smoking cannot be attributed to nicotine. Besides ammonia, the bases found nearly all belonged to the picolin or pyridin series, well known to be produced during the destructive distillation of wood and many other vegetable products. These bases form a well-defined homologous series. The following were found, and identified by their analysis, the analysis of their platinum salts, and by the determination of their respective boiling-points:—Pyridin, C_5H_5N; picolin, C_6H_7N; lutidin, C_7H_9N; collidin, $C_8H_{11}N$. In smaller amount—Parvolin, $C_9H_{13}N$; coridin, $C_{10}H_{15}N$; rubidin, $C_{11}H_{17}N$; and others of higher boiling-points—such as viridin, $C_{12}H_{19}N$. Methylamine was not found, and ethylamine in very small quantity only.

In investigating the action of these alkaloids of the pyridin series, the mixed bases boiling below 160° C. were first tried on pigeons. These animals succumbed under tetanic spasms, succeeded by convulsions. The bases boiling at 160°—250° C. were next tried on pigeons and guinea-pigs. The results were irregular cardiac action, tonic and clonic spasms, convulsions, and death. Picolin bases from other sources than tobacco were also found to produce similar effects. Pure picolin also had an almost precisely similar result. The only difference appeared to be that this alkaloid caused dilatation of the pupils, whilst the mixed bases from tobacco caused contracted pupils. The effects of tobacco-smoking must hence be referred to pyridin bases, and not to nicotine, the symptoms of which are different. Similarly, no daturin was found among the products of the semi-destructive distillation of stramonium. It is well known, too, that the same pyridin bases are among the products of the distillation of opium, and Drs. Eulenberg and Vohl are inclined to attribute the effects produced by smoking this drug, not to morphia, but to the picolin series of alkaloids. An interesting line of physiological, toxicological, and chemical study is thus opened up.

THE WEEK.

TOPICS OF THE DAY.

At Königsberg the cholera is still widely prevalent, and is very fatal; from 50 to 60 cases occur daily, and it is said that the deaths are as many as from 45 to 50 of the attacks. During the week from August 18 to August 25, 329 persons are reported to have died there by cholera; among them were 127 children. A telegram, dated August 25, stated that there had been 12 cases of cholera, and 10 deaths, at Dantzic; but we have no report of any fresh cases since then. At St. Petersburg the epidemic is said to have abated considerably. The mortality in Paris for the week ending August 25 was 823—equal to an annual death-rate of 24 per 1000—79 deaths were referred to diarrhœa, 27 to dysentery, 16 to cholerine, and 6 to cholera; but it is not reported that any of the cholera cases were of the Asiatic type. In London the fatal cases of diarrhœa, which in the two previous weeks had been 299 and 425, increased to 487 last week; of these 450 were of infants under 2 years, and 21 of persons aged 60 years or more. The deaths referred to cholera and choleraic diarrhœa declined from 49 in the previous week to 28 last week, and all who died, except 3, were children, mostly infants. The 3 adults who died from "choleraic diarrhœa" were respectively 78, 52, and 51 years of age. The 487 deaths from diarrhœa exceeded by 295 the corrected average number in the corresponding week of the ten years 1861-71, and were equal to an annual death-rate of 8 per 1000 of persons living. In the West and North groups of districts this death-rate was, last week, 7 per 1000, in the Central group 4, and in the East and South groups 9. In many of the provincial towns the deaths from diarrhœa, almost entirely infantile, have considerably increased; most so in Sheffield, which has been suffering very severely from infantile diarrhœa, the annual death-rate from that disease having last week been equal to 18 per 1000 of the population.

The last account of cholera from Berlin states that on the 27-28th inst. there were 100 cases and 29 deaths, on the 28-29th inst. 79 cases and 50 deaths. At Elbing, up to Sunday, 34 persons had been taken ill, of whom 20 died. A telegram from Hamburg states that the first case of cholera occurred at Altona on the 19th inst., from which date up to the 26th inst. 16 deaths from cholera had occurred.

We have heard of three candidates for the vacant post of Officer of Health to the parish of Islington. We are only surprised that there should be such a number of men of high acquirements anxious to obtain such an unenviable position. They are Mr. Haviland, the author of "The Charts illustrating the Geographical Distribution of Disease;" Dr. Meymott Tidy, Lecturer on Chemistry at the London Hospital; and Professor Corfield, of University College. With such a galaxy of talent to choose from, the electors of Islington can scarcely go wrong.

Some serious charges against the management of the Small-pox Hospital at Highgate have been made by three gentlemen who were recently Assistant Medical Officers there. A full inquiry is, we believe, demanded on the part of the Medical and nursing staff.

The cause of the Stowmarket explosion still remains unexplained. Professor Abel supports the spontaneous combustion theory, samples of the gun-cotton produced from Upnor Castle having been found to contain too much acid. Another theory is, that free sulphuric acid had been criminally placed in the cotton sent to Upnor Castle.

Another case of alleged prolonged fasting is reported from the neighbourhood of Preston. A woman is said to have taken nothing but water for sixteen months!

The *Scotsman* of August 29 contains an account of the alleged wrongful confinement of a Manx gentleman in a lunatic asylum in Dumfries. A story of the manner in which the removal of the patient was effected, and the artifices employed to get him into the asylum, is copied into that paper from the *Isle of Man Times*. It is said that three Medical men have since certified the patient to be sane. But the whole story requires verification before it can be accepted or commented on.

THE HAMPSHIRE CAMPAIGN.

We understand that Inspector-General Lawson, the principal Medical officer at Aldershot, will have the general superintendence of the Medical arrangements of the whole force employed in the approaching campaign. The total force of about 30,000 men will be divided into three divisions of nearly equal numbers. Each division will be under the Medical charge of a Surgeon-Major as principal Medical officer, and there will be three field-Hospitals in each. The first division, under the command of Sir Hope Grant, will have Staff Surgeon-Major Rendall, M.D., as principal Medical officer. The first field-Hospital will be in charge of Staff Surgeon-Major F. Holton, M.B.; the second under Staff Surgeon R. Hungerford; and the third under Staff Surgeon J. R. Thomas. In the second division, under the command of Sir John Garvock, the principal Medical officer will be Surgeon-Major J. Sinclair, 33rd Regiment, and the three field-Hospitals will be respectively under the charge of Staff Surgeons C. M. M. Miller, M.D., R. Watson, and N. Ffolliott. In the third division, under the command of Sir Charles Stavely, Surgeon-Major J. J. Clifford, of the 9th Lancers, will be the principal Medical officer, and Staff Surgeons E. G. Rellett, W. Grantt, M.B., and G. Palatiano, M.D., will be in charge of the field-Hospitals.

A PANIC ON THE THAMES EMBANKMENT.

A bull-terrier, which had been in the habit of taking freely to the water, having on Wednesday last suddenly displayed extreme unwillingness to do so, and evinced the utmost terror at the sight of the water, followed by a state of excitement in which he flew at and bit several persons on the Thames Embankment, caused a regular panic among the passers-by, until he was secured and removed by the police. The occurrence was sufficiently alarming, no doubt, but it yet remains to be proved that the dog was rabid. Every means should, however, be adopted, in the cases of the bitten persons, to thoroughly cleanse the wounds, and check the absorption of any secretion from the animal's mouth. Mr. Youatt, the celebrated Veterinary Surgeon, was several times bitten by dogs known to be rabid, and he never suffered materially in consequence. The only remedy which he employed was the free application of nitrate of silver, having previously thoroughly washed and sucked the wound. It is well to bear in mind that hydrophobia in the human subject does not inevitably follow the bite of a rabid dog. Several persons may be bitten by the same animal, and hydrophobia may appear only in one or two, and perhaps in none. The popular idea that a dog evincing any unusual irritability or snappishness, or even having bitten his master or other persons without any apparent provocation, should be immediately destroyed, is a great mistake, as by so doing one of the most effectual means of relieving the anxiety and doubt of the person bitten is lost, for the possibility of the dog not having been mad at all can never be established as a fact. The plan to adopt under such circumstances is to tie up the dog, leaving him food and drink within easy reach; if rabies be impending the symptoms will declare themselves within a very few days, but if at the end of a fortnight or so the dog continue in good health, or be attacked by some disease distinct from rabies, the bitten person may make his mind quite easy on the matter. For this reason we hope that the dog which caused the alarm on Wednesday may not have been destroyed by the police.

THE EAST SURREY ELECTION.

The importance of the Anti-Contagious Diseases Act Association as a political engine has been considerably diminished by the result of the East Surrey election. Notwithstanding the vaticinations of a daily contemporary, that the promised opposition of Mr. Leveson-Gower to these Acts would secure for him a considerable number of votes from the Conservative party, Mr. Watney, who had made no similar pledges, was returned by a very large majority. We are glad to see that the fictitious political value hitherto imputed to opposition to the Contagious Diseases Acts attains its proper level when other questions of more general interest and importance have to be considered. Future and present M.P.'s would do well to consider the result of the East Surrey election as a true index of the state of public feeling on the Contagious Diseases Acts.

MEDICAL RELIEF AT SOUTHAMPTON.—THE WORK OF A UNION SURGEON.

Dr. Griffin has resigned his appointment as one of the Medical Officers of the Southampton Union. In taking his leave of the Board he has embodied in a letter some facts which are deserving of notice. He says that Southampton, in the three districts, contains over 47,000 inhabitants. In opposition to Article 159 of the Poor-law Board, which does not allow guardians to assign to a Medical officer a district containing more than 15,000 persons, District No. 2 has 16,000. During the last eight years District No. 2 has attended 16,000 sick paupers—that is, 2000 sick a year—and the average duration of illness has been twenty-six days. Dr. Griffin contends that no man can properly attend to these and his private practice—the salary is £103—consequently he must neglect the one or the other. "To prevent a charge of neglect, he too often is compelled to merely give a momentary look on his visit; and when a visit is impossible, an order for meat and wine has sometimes stopped a disturbance. But the illness lingers, more drugs are consumed, and paupers are made; for it is a well-known fact that 70 per cent. of paupers are made paupers through sickness."

The following graphic account of the working of this "system" at Southampton is doubtless applicable to many other unions. The complaint of the indiscriminate manner in which orders for Medical attendance are given is unfortunately too common. Here is Dr. Griffin's account of the effects of such a lax mode of conduct:—

"Southampton has no right to have an annual sick-pauper population of over 6000. The number is so large because the only real opposition to the manufacture of paupers is on the part of the Medical officer. The guardians take no interest in, know nothing about, have no supervision, and exercise no control over, the granting and management of Medical orders; but whenever a relieving officer does his best to diminish the number of applicants he generally gets into disgrace. It is not uncommon to find two men in the same employ, with similar wages, the one a member of a club which provides Medical attendance for himself and family, the other, although in constant work, not only employing the parish Doctor for his wife or child, but obtaining meat, wine, and other Medical comforts, and when an increase comes to his family circle to have granted almost all he may wish for. (Formerly, when the guardians paid an extra fee for midwifery, they took care to give only eight or ten orders. Now they don't pay, they do not object to grant from fifty to one hundred a year, at an indirect cost to the ratepayers five times greater than when they paid a fee.) Men, too, in constant employment, with wages from £1 to £14 a month, obtain Medical orders for their families. This indiscriminate granting of orders has

been the curse of sick-benefit societies. It has made many an honest man cease to subscribe to clubs when he finds that he has not only to pay the club for his own family, but, as a ratepayer, also for his fellow-workman's, who is as well, perhaps better, off than he. It has done much to pauperise and destroy the self-dependence of the whole labouring population. It, by the number of cases it produces, compels the Medical officer to slur over his work; and, knowing how much he is being imposed upon by the guardians, it too often creates an ill-feeling between the pauper and the Doctor, and destroys that kindness of sentiment and confidence which should exist between them, and which is so essential for the speedy curation of disease; and so the ratepayers suffer."

Dr. Griffin enters into a number of statistics to show the inequality of payment under the present system, and enumerates the various evils to which it gives rise. He says—

"The only plan to rectify these evils is a per case system of payment, and it alone can act honestly to the ratepayer, the poor, and the Medical officer. To the ratepayer, because the guardians will go into the merits of each case, and allow none to have relief who are not entitled to it; to the Medical officer, because he will know he cannot be imposed upon by the guardians; to the poor, because there will be fewer of them, and they will get better attention, while many eventually will carry out the original ideas of the poor-law, and take their order as a loan, to repay it."

It was evident that the letter of Dr. Griffin made a deep impression on the guardians, who accepted his resignation by a small majority. Upon the suggestion of the Deputy President, it was agreed to write to and thank Dr. Griffin for his letter. It should be mentioned, in justice to Dr. Hearne, that Dr. Griffin's letter was written *apropos* to a suggestion by Dr. Hearne to pay the Medical officers of the union by the case.

MEDICAL EXAMINATION OF WOMEN.

Medical Practitioners are occasionally placed in circumstances of great difficulty and danger. They are compelled by law to give evidence on cases involving civil and criminal penalties, and their opinion is frequently of the utmost importance in deciding the fate of a prisoner. If they refuse to act upon the authority of a warrant or summons, issued by a person competent to issue it, they are liable to be fined or imprisoned. It is of the utmost moment, then, that they should be acquainted with the law on the subject of examinations, particularly of women. A Practitioner was proceeded against some two years ago for damages for examining a woman whom it was supposed had given birth to a child. The Surgeon acted upon the simple authority of a police inspector. A verdict was given against him for £200. Now, we cannot complain of this, except on the ground that the Surgeon was unacquainted with the law on the subject, and believed he was merely doing his duty and infringing no law by so doing. Has anyone the power to order an examination of a woman suspected of giving birth to a child, and of concealing the fact—the child being found dead? It appears from Taylor's "Jurisprudence" that a coroner under such circumstances has the power of issuing an order for that purpose, as has also "a person duly qualified to do so." But we presume that the grounds of suspicion must be of a very positive character indeed. There is, we believe, no law to warrant the proceedings lately instituted by a coroner at Kingsland, Hereford. The body of a newly-born child was discovered, the crime of infanticide having been committed most probably by the mother. The coroner held an inquest, and on his own authority ordered a Medical examination of all the women who lived in the house where the crime presumably occurred. All were to be examined, though the state of one only could give ground of suspicion. This case has naturally attracted considerable attention, and, as involving the interests of the Profession, is worthy of especial mention here. The question is, Who is the responsible party in such a case? Is it the coroner who issues an order he is not entitled by law to do, or the Medical Practitioner, who in the performance of his duty acts upon the illegal order? This is a nice question, but one of grave import to those members of our Profession who are called upon to act under such circumstances.

A NEW HOMŒOPATHIC PROFESSION OF FAITH.

The *Monthly Homœopathic Review* for August contains a note on its distinctive position as a homœopathic journal, from which we extract the following:—"We believe an important truth to be contained in the system of therapeutics inaugurated by Hahnemann. We regard *specific* medication, wherever it can be had, as a long way the best mode of treating disease; and we believe that the principle '*similia similibus*' is the best guide to the discovery of the specific remedy in each case." This is something new with a vengeance! Homœopathy is no longer the curing of like by like, but the employment of specifics wherever attainable. Now, by a specific we simply mean a remedy which in the majority of instances cures a disease, but of whose principle of action we can give no clear or definite account. But surely this is not homœopathy. If, when we give a dose of colchicum to a gouty subject, a full dose of quinine to an aguish man, thirty grains of iodide of potassium for tertiary syphilis, five minims of liquor arsenicalis for ordinary psoriasis, etc., we are practising homœopathy, it is something new to us, even although we are employing specific medication. From the above passage it is plain that its author places *specific treatment* above the boasted law of similars, which has hitherto been considered the keystone of homœopathic practice, relegating it to the position of a means of finding out drugs possessed of certain specific effects, which may be employed in the treatment of disease. Further on it is said—"We would gladly advocate and practise this creed of ours, undistinguished otherwise among our fellows, but by some strange disorder of vision its maintenance has come to be regarded as a professional crime. To advow adherence to it means to be, so far as established institutions are concerned—ostracised, excluded, silenced. We are forbidden to advocate it in society or journal; to put it in practice at Hospital or Dispensary"—and so on. But surely all this cannot apply to *specific* treatment merely. If so, we must all be in the same boat—which, we trust, we are not. No, it is not specific treatment we reject, it is the monstrous fiction of homœopathy as ordinarily practised; it is the law of similars we deny—the dishonest trifling with inert substances in the 200th or even the 800th dilution (this being a subdivision hardly conceivable, and with regard to which the old joke of a drop in the Thames at Richmond, and a bucket at London-bridge, is a joke no longer). The means to be employed for finding out the physiological action of a drug are plain and simple enough; but we do not accept, and we trust never will accept, the whims and fancies of a hypochondriac as a proof of the action of any drug. The fallacies of a *post hoc ergo propter hoc* logic are too well known to be discussed.

MORTALITY OF PARIS.

It is stated that during last week there were 823 deaths in Paris—seventy-nine from diarrhœa, sixteen from cholerine, and six from cholera. Dr. Decaisne, however, in the *France* questions the accuracy of this return. He inquires what the official bulletin means by cholerine and diarrhœa. "What can this diarrhœa be that kills seventy-nine persons in six days?" He abjures, as idle, a discussion as to a difference between cholera "nostras" and Asiatic cholera, and is curious to know what is the difference between the fatal recorded cases and the Indian epidemic. He maintains that the cholerine may quickly run into cholera, and dwells with much emphasis on the importance of checking at once all the premonitory symptoms of the disease.

WOMEN DOCTORS IN RUSSIA.

In Russia the "rights of women," so far as the Profession of Medicine is concerned, are fully recognised. The Medical

Faculty of Moscow have decided that it would be of special utility to women to be allowed the privilege of acquiring a thorough Medical knowledge at higher Medical schools, and of afterwards practising without let or hindrance, and that the female sex ought to be authorised to take part, together with the male students, in the classes and lectures of the Medical Faculties, and in the Medical-Chirurgical Academy. It is considered, however, advisable that before entering upon their university career the knowledge to be acquired should be identical with that possessed by the male students. Steps have been taken to carry out the plan. Who shall say, after this, that Russia is behindhand in civilisation and progress?

FROM ABROAD.—DRAINAGE IN GUNSHOT WOUNDS—ALCOHOL AS A CAUSE OF INSANITY IN FRANCE—THE OÏDIUM IN MILITARY BREAD.

Dr. Christot has recently published, in the *Lyon Médical*, a series of interesting papers on "Drainage in Gunshot Wounds," in which he illustrates by many detailed cases the great utility of this means under very unpromising circumstances. His general conclusions are—1. Drainage constitutes a valuable Surgical procedure for warding off the accidents which ensue in gunshot wounds of the soft parts. It furnishes favourable results in those muscular and aponeurotic seton-wounds which are too often complicated by diffuse inflammation and extensive suppuration. By reason of the facilities which it affords for the discharge of pus and all kinds of septic liquids, it constitutes an excellent means of arresting traumatic fever, and of preventing or causing the disappearance of the accidents of septicæmia. Its application seems to be especially necessary in those cases in which the inflammatory action has been induced by the prolonged presence of foreign bodies amidst the tissues, such as projectiles, shreds of clothing, splinters, etc. 2. By the rapid limitation of the extent of the inflammation which drainage puts into force, it acts efficaciously in cases of diffuse suppurative periarthritis by protecting the endangered joint. In such cases it should be resorted to as speedily as possible. This, indeed, is one of the most important cases in which it can be employed. 3. In those cases in which gunshot wounds extend more deeply, and in which the bones or joints are implicated, drainage should be employed with more reserve. It would seem to be insufficient to meet the formidable accidents of traumatic arthritis, and it is scarcely more efficacious in the cases in which the diaphyses of the bones are concerned. It is, perhaps, more hurtful than useful wherever the injury implicates a medullary cavity of the first rank (as in the diaphyses of the femur, humerus, and tibia), for the elastic tube which is so well borne by the soft parts becomes an agent of irritation all the more dangerous, as in the osseous system the phenomena of inflammation or absorption present special conditions which only explain too well the serious general complications that result. Drainage resumes all its efficacy in injuries of the skeleton of the extremities (as in the hands and feet, wrist and instep), whatever may be their extent or multiplicity.

The question of the ill-influence of alcoholic drinks is now a principal one among those occupying public attention in France, all kinds of evils, whether political, military, or social, having been explained of late by their abuse. M. Théophile Roussel, who is member alike of the Academy of Medicine and of the Chamber of Deputies, recently read a long communication before the former body, which, it would almost seem, he must have mistaken for the latter, as it related chiefly to the legislative measures necessary to arrest the course of drinking habits. In all this there is doubtless much exaggeration, for no one can believe the evil of drinking can as yet have exerted the immense influence attributed to it. One of the latest papers on the subject is that of M. Lunier, read at the Academy on the 22nd inst., in which he considers the part which alcoholic drinks have played in the increase of the number of cases of insanity. From the facts which he enumerates, he concludes:—1. In the North-east of France, the departments which do not cultivate the vine are those which have been first invaded by the alcohols derived from beetroot and grain. There the consumption of wine has remained almost stationary, and that of cider is on the decrease, while the consumption of alcohol has doubled or tripled within the last twenty years. 2. The departments of the same region which do cultivate the vine have resorted to alcohols derived from other sources only at a later period, but even in these the consumption has almost everywhere doubled. 3. In this region insanity arising from drinking has considerably increased in frequency, having attained in some parts the proportion of 41 per cent. among the men and 21 per cent. among the women. But while in those departments in which the vine is not grown the increase has occurred chiefly among females, in the others it has scarcely been sensible among them. 4. In the Department of the Orne, which does not produce wine, but where beetroot alcohol is distilled, almost as much spirit as wine is consumed, and almost as much was consumed twenty years since as now. Consequently, the proportion of cases of insanity from drink has for a long time been considerable (13 per cent.), and has not much increased during fifteen years, what increase there has been having taken place exclusively among women. 5. In the East, where more wine is grown than is consumed, and where some years since no brandy was known except that made from the grape in the country itself, the results, in relation to insanity, were nothing alarming; but since the alcohols of the North have penetrated there, the insanity due to drinking has increased in a very strong proportion. 6. In fine, alcoholism plays a very preponderant part in the increase of the number of cases of insanity, and constitutes in this relation, as in so many others, a serious danger for society, and especially in the Northern and North-eastern departments.

M. Poggiale, at the same meeting of the Academy, brought under its notice a curious appearance observed in the bread used for the military (*pain de munition*). The bread affected on examination was found to be extensively damaged by a yellowish-white substance, changing gradually to an orange-red colour, and emitting a nauseous odour. Considerable agglomerations of this substance are formed so as successively to fill all the cavities of the loaf. Examined under the microscope the appearance was found to be due to the presence of the cryptogamic vegetation termed by M. Leveillé *oïdium aurantiacum*, and which had already been observed in bread at Paris in the summer of 1843, and at a later period at Marseilles and in Algeria. The sporules of the *oïdium* were found to be adherent to the cortical portion of the corn, and they are probably abundant in proportion as this is in a humid state, badly cleansed, and has undergone alteration from the larvæ of the weevil. It is not found in bread of the best quality which has been carefully prepared. M. Poggiale believes that the high temperature which prevailed during the first fortnight in August has much favoured the development of the *oïdium*. Although no ill-effect has been traced to the employment of bread so affected, he recommends that its use should be interdicted. For its prevention better flour must be employed in the preparation of the bread, while the quantity of water introduced into this should be reduced, and it should be more carefully baked and cooled than is at present the case.

The Death of Renforth.—A suspicion has been raised that the death of the stroke-oar in the recent international race was caused by foul play. It is said that the contents of the stomach are to be analysed. The ostensible cause of his death was, it is said, congestion of the lungs.

REPORT OF THE POOR-LAW BOARD.—III.

(*Continued from page* 261.)

With the establishment of dispensaries, says the Report, considerable progress has been made during the past year in the metropolis, fifty-eight dispensaries being either ready, in course of construction, or in contemplation. The Fulham and Lewisham Unions are found to be too thinly populated for the dispensary system, and therefore Medical relief continues to be administered as heretofore; whilst, for a like reason, there has been no change in parts of the parish of Camberwell and of the Wandsworth and Clapham Union. With these exceptions, the system will, before long, be of general adoption throughout the metropolis. Great judgment is, of course, needed in deciding where dispensaries shall be established, how many are needed, and to what number of Medical districts each should be attached. With reference to these heads we quote from the Report—"It will be observed that a dispensary is not merely a place where medicine is given out to the poor, but is the meeting-place of Doctor and patient, at least in the case of those of the sick who are able to leave their homes. If the dispensary is too far from the home of the Medical officer, or from that of the patient, considerable inconvenience may be occasioned to both. At present the dispensaries which have been sanctioned in the metropolis are, with trifling exceptions, within a mile of the homes of the patients, who are supplied with medicines from them, and in the large majority of cases the distance is very much less. While, however, it is important that the area supplied by the dispensary shall not be too large, it is equally necessary that it shall entail a sufficient amount of work to keep the time of a dispenser well occupied. This usually involves the connexion of two, three, or in some cases of even a larger number of Medical districts with the same dispensary."

It is satisfactory to be assured, though hard to reconcile with what we have heard from time to time elsewhere, that "the co-operation of the guardians in the formation of these dispensaries has been in nearly all cases readily obtained, as soon as the objects to be attained by them had been placed clearly before them. The delay which in many cases has taken place in their establishment is due to the difficulties which have so frequently occurred in meeting with suitable sites, and the difficulty has been the greater that the guardians have been in many instances anxious, and not without sufficient grounds, to combine within the same precincts a dispensary and a relief station." To such an arrangement there would appear to be no very obvious objection, provided that it were not, indirectly, the cause of delay in opening the dispensaries. That this has, however, been the result, in some instances, appears to be indicated by the wording of the Report.

Reference is made to the order issued by the Poor-law Board to carry out the dispensary system in those places where it has been adopted. We gave the principal heads of the order at the time of its issue, but we ventured no opinion as to its capabilities for practical use. We now believe that before long it will be found requisite to modify or rescind some portions of it to meet the suggestions which could only result from experience, and which, consequently, the framers of the order could by no means foresee. There is, however, one modification which Medical officers might quite safely get their guardians to adopt without waiting for the issue of any fresh rule. Instead of adhering to the dimensions of the prescription-paper as given in the schedule to the order, there can be no objection to its being so printed as to allow a larger space for entering the prescriptions.

We were aware that, apart from the metropolis, the dispensary system had made but little way, but how little we did not before realise. The Board state—

"We have made inquiries through our inspectors as to the existence of dispensaries under the management of boards of guardians in their districts, exclusive of the metropolis, and we find that the system of providing dispensaries has only been established in about nine unions, in some of which it is merely for the supply of medicines for the workhouse. Where, however, it has been tried it is reported to be working satisfactorily."

This allusion to the question does not seem to foreshadow any very immediate intention of extending the system to the provinces.

With the paragraph above quoted our information on out-door Medical relief in extra-metropolitan unions and parishes begins and ends, so far as the Report proper is concerned; but in the Appendix are reports from three Poor-law inspectors on the subject. Of these inspectors, one at least—Mr. R. B. Cane—is certainly somewhat hard upon the Medical officers, and adopts, in parts of his report, a tone which leads to the inference that in the portion of the country under his inspection the Medical men are not up to the general standard. Whether this be so, or whether he views the class with eyes not altogether unprejudiced, we cannot judge, as he gives no list of the places under his care, nor names of officers, as do his colleagues Mr. W. A. Peel and Mr. Farnall. Mr. Cane says—

"One of the most constant representations made to an inspector when attending meetings of boards of guardians relates to what is generally termed the 'Doctors' orders,' meaning the orders given by District Medical Officers for the supply of meat, wine, spirits, beer, and other necessaries for the sick poor under their care.

"The extent and nature of these orders vary in kind and degree not only in different unions but in different districts of the same union, and my attention has not only been drawn to great differences in degree, but in some few instances to the fact that in one district the most liberal if not profuse quantities of stimulants have been ordered, whilst in a neighbouring district, the Medical officer, being, as it was said, a supporter of 'temperance principles,' systematically abstained from ordering stimulants of any kind, even although the patients were afflicted by the same disorders as those for whom such stimulants were so plentifully supplied in the district adjacent to his own.

"These diversities of practice are not confined to the out-door poor, but, in one instance, certainly, I have found a workhouse wholly unprovided either with wine, spirits, or beer, and I was compelled seriously to remonstrate and point to a case in which life would have been sacrificed unless private resources had supplied what the Medical officer had not required, before even the smallest stock of essentials was provided for occasional use under the most urgent circumstances.

"These contrarieties cannot fail to make a strong impression on the minds, and seriously to embarrass the guardians; and it is in vain that the inspector returns to their inquiries the only general answer in his power — namely, that the so-called 'orders' convey no legal obligation such as either the guardians themselves or their officers are bound to obey; that they are, in fact, no more than representations of what the Medical officer thinks necessary for the health or recovery of his patient, whilst the guardians, being the sole judges of 'means' and of 'destitution,' have to decide whether the patient is able himself to obtain what is Medically thought necessary without help from the poor-rates. The guardians naturally decline to accept the responsibility of withholding what is represented as being essential to life, strength, or recovery from disease, simply because of the cost which the order entails, although in many instances they are fully satisfied that the poorer ratepayers cannot at all times afford themselves what the pauper patient obtains, and although they often feel convinced that Medical aid is sought chiefly in the hope that it will lead to a supply of mutton, beef, and beer. Nor are these *suspicions* merely. Often it has come under my notice that the Medical officer reports that he has seen the patient, but it was not *medicine* he required, but 'support,' or 'better' or 'larger quantities of food.' Thus, numbers of cases are entered in the Medical officers' reports as suffering from 'debility,' and requiring food alone. Such entries afford guardians who are disposed to avail themselves of them full opportunity for giving relief in aid of wages, since sickness affecting any member of the family brings it within the exceptions to the prohibitory order. On the other hand, those boards of guardians who wish to administer the law on sound and economical principles, find themselves not only embarrassed but absolutely foiled in their endeavours to control relief, and much power and no inconsiderable portion of expenditure virtually passes from their hands into those of the Medical officer, who has no responsibility for money outlay, and *whose direct interest it is that the sustenance required shall be supplied from the butcher, the grocer, or the public-house rather than be derived from the Medical effect of the drugs contained in his own dispensary.*"

The italics in this last paragraph are our own. They contain, in distinct terms, a charge which has been often insinuated—one, however, which on behalf of Medical officers we have always repudiated, and, as we believe, with the entire concurrence of persons, not Medical men, able to form, from local observation, a more reliable opinion than can be arrived at by a non-Professional inspector in a flying visit.

Pursuing the same subject, Mr. Cane adds—

"Another evil, too often apparent, arises from the circumstance that the necessaries, of whatever kind they be, can only be procured by sending long distances for them. Hence a whole week's supply is ordered and procured at one time, and the meat and other articles too frequently form one meal only for the entire family, instead of being consumed at intervals and solely by the sick person for whose exclusive use and benefit they were intended." This evil cannot, surely, be laid at the door of the Medical officer!

"These are the chief evils connected with 'Doctors' orders.' These orders in effect transfer a large portion of out-door relief from responsible to irresponsible hands; they effect a minimum benefit at a maximum expenditure, afford constant opportunities for evading regulations directed against the grossest form of relief in aid of wages, and hold out strong and direct temptation to corrupt practices for private advantage.

"Some attempts have been made to correct these evils, but hitherto with only very partial and limited effect. In some unions, consisting of the parishes composing a populous town, and in some large towns, the guardians have provided a dispensary, a dispenser, and all the necessary medicines and appliances. In many unions bread is baked at the workhouse, and is supplied to the out-door poor.

"In some it is distributed by the relieving officers, who are provided with the means for doing so. In one or two unions and large towns in this district provisions and 'groceries' are contracted for by the guardians, who cause them to be given out on the production of tickets as 'relief in kind,' and in these latter instances the plan is said to be attended with the most satisfactory results.

"But these attempts are few in number, and none of them have, I believe, been so arranged as to combine a dispensary with relief stores, as probably they might with greater advantages still. All that has hitherto been done in my district has arisen from voluntary action on the part of the local authorities."

Mr. Cane adds, referring to the establishment of dispensaries in the provinces—"But little direct official support and encouragement has been afforded, and no action taken, to extend these arrangements to all large towns, where at least they would be comparatively easy of adoption."

Mr. W. A. Peel, whose experience is taken from the unions of Biggleswade, Woburn, Wisbech, St. Albans, Hertford, Hitchin, Huntingdon, Hendon, Brackley, Brixworth, and Oundle, gives more statistics and less of his own views. He finds that in the above eleven unions 6·3 per cent. of the population are paupers, and that, in the sample week which he took, 37·4 per cent. of the 1341 patients under out-door Medical treatment received meat and stimulants on the recommendation of the Medical officers. He is satisfied that, if the returns had been taken for a whole year, no great diversity of practice would have been found in the several districts, a conclusion differing from that of Mr. Cane. On another important point Mr. Peel's opinion is satisfactory. He says—"The guardians are of course able to provide better meat and wine than the poor can purchase for themselves, and *in all the cases I have listened to during the last few weeks there has not been one where, in the opinion of the guardians or in my own, medicine would have been a proper substitute.*"

On the whole, this Inspector seems to have formed a reasonably favourable opinion of Medical officers. He considers that, "in face of some defects which undoubtedly exist in the administration of Medical out-relief, it must be admitted that the present system offers greater advantages to the paupers than the poorer class of ratepayers, when sick, can command. The Medical officer must be duly qualified to practise; it is alike his duty and his interest to cure his patients as quickly as possible, and he is subject to a surveillance from which the private Practitioner is altogether exempt. It is rare that any case of alleged neglect or improper treatment escapes the notice of the relieving officer or the guardians, and if the case be proved against the Medical officer he is either reprimanded or removed."

We must reserve for the present the consideration of Mr. Farnall's report on the same subject.

[*To be continued.*]

THE CHOLERA PRIZE ESSAY.—A prize of £4000 is yet to be awarded by the Academy of Sciences to the discoverer of an efficient remedy for cholera. More than 150 papers have been sent in on the subject during the last fortnight.

OF THAT DESCRIPTION OF

INSANITY WHICH WILL EXCUSE THE COMMISSION OF CRIME.

(*From a Legal Correspondent.*)

MORAL insanity is not admitted as a bar to responsibility in criminal cases, except so far as it is accompanied by intellectual disturbance; and even intellectual disturbance, if limited to insane delusions, will not relieve from criminal responsibility if the accused, though acting under the influence of the insane delusion, but not in other respects insane, and the act with which he is charged being contrary to the law of the land, had a sufficient degree of reason to know that he was doing an act that was wrong and contrary to law. The accused in that case is assumed to know that the act was contrary to the law of the land, as the law is administered upon the principle that every man must be taken conclusively to know it, without proof that he does know it; but if the accused was labouring under such a defect of reason from disease of the mind as not to know the nature and quality of the act he was doing, or if he did know it, that he did not know he was doing wrong, that is such a degree and quality of insanity as alone will relieve a person from criminal responsibility.

Such are the propositions contained in the answers of the judges to questions propounded to them by the House of Lords in the McNaughten case. The late Mr. Justice Maull took a somewhat different view from the rest of the judges in that case. To use his own words—"To render a person irresponsible for crime on account of unsoundness of mind, the unsoundness should, according to the law as it has long been understood and held, be such as to render him incapable of knowing right from wrong. . . . If the state described be one which involves, or is necessarily connected with, such unsoundness, this is not a matter of law, but of physiology, and not of that obvious and familiar kind to be inferred without proof." It will be observed that this reply greatly modifies the broad propositions propounded, one of which was, "if the accused at the time of the commission of the alleged crime knew he was acting contrary to law." That is something very different from (as Mr. Justice Maull puts it) "knowing right from wrong." The terms used in the question put by the House of Lords "cannot be said," he observes, "to be equivalent to a description of this kind of unsoundness of mind." But yet he cautiously remarks—"There is no law that I am aware of that makes persons in the state described in the question not responsible for their criminal acts." Now, the question was, "What is the law respecting alleged crimes committed by persons affected with insane delusions in respect of one or more particular subjects or persons—as, for instance, where, at the time of the commission of the alleged crime, the accused knew he was acting contrary to law, but did the act complained of with the view, under the influence of insane delusion, of redressing or revenging some supposed grievance or injury, or of producing some supposed public benefit?" It will be observed the question does not deal with the case of supposed moral right or wrong, but merely with a knowledge of the law—*i.e.*, the law of the land—which a person may be acquainted with, and yet think that he is doing right in disregarding it, and that the law of the land is inconsistent with the moral law. It is obvious that, as a rule, a person, though labouring under an insane delusion, would not be permitted to set up a moral standard of his own, and the abstract question of right or wrong must be determined by some acknowledged test. As Chief Justice Tindal, delivering the opinion of all the judges (Mr. Justice Maull excepting), observed—"To establish a defence on the ground of insanity, it must be clearly proved that at the time of the committing of the act the party accused was labouring under such a defect of reason, from disease of the mind, as not to know the nature and quality of the act he was doing, or, if he did know it, that he did not know he was doing what was wrong. The mode of putting the latter part of the question to the jury on these occasions has generally been, whether the accused at the time of doing the act knew the difference between right and wrong; which mode is not, as we conceive, so accurate when put generally and in the abstract, as when put with reference to the party's knowledge of right and wrong in respect to the very act with which he is charged." His Lordship then goes on to observe—"If the accused was conscious that the act was one which he ought not to do, and if that act was at the same time contrary to the law of the land, he is punishable; and the usual course has been to leave the question to the jury, whether the party accused had a sufficient degree of reason to

know that he was doing an act that was wrong; and this course, we think, is correct.

In answer to the question, "If a person under an insane delusion as to existing facts commits an offence in consequence thereof, is he thereby excused?" the reply was, "If, under the influence of his delusion, he supposes another man to be in the act of attempting to take away his life, and he kills that man, as he supposes, in self-defence, he would be exempt from punishment. If his delusion was that the deceased had inflicted a serious injury on his character and fortune, and he killed him in revenge for such supposed injury, he would be liable to punishment." Here, then, is the *animus* exhibited—the indulgence in malice aforethought. The reason is not so totally obscured as to have obliterated all consciousness of right or wrong, and it is in the intention that the crime consists. For instance, in the case of inebriety, or that partial or temporary mania caused by drink, although drunkenness is no excuse for crime, it is always taken into account in judging of the intent with which an act is done (per Holroyd J., Rex v. Grindley, 1 Russ. and Greaves, 8). And where a prisoner was tried for attempting to commit suicide, and it appeared that, at the time of the alleged offence, she was so drunk that she did not know what she was doing, Chief Justice Jervis held that negatived the attempt to commit suicide (Reg. v. Moore, 3 Car. and Kirwan, 319).

There is, however, a case mentioned in "Paris and Fonblanque" of a prisoner who, after a paroxysm of drunkenness, rose in the middle of the night, and cut the throats of his father and mother, ravished the maidservant in her sleep, and afterwards murdered her, who, notwithstanding the fact of his drunkenness, was executed for these offences (Paris and Fonb. "Med. Juris.," 140 n.).

Wherever the intent is the essence of the crime, as in a charge of cutting and wounding with *intent* to do grievous bodily harm, the drunkenness of the accused is always taken into account in judging of such intent. And if by the long practice of intoxication an habitual or fixed insanity is caused, although this madness was contracted voluntarily, yet the party is in the same situation with regard to crimes as if it had been contracted involuntarily at first, and is not punishable (1 Hale, "Pleas of Crown," 32).

Whether the judges have trespassed beyond the confines of mere law, and have usurped the province of physiologists in the McNaughten case, is not within the province of the present inquiry.

The law remains as laid down on that occasion, and with the law alone the writer of this paper has to do. Further scientific investigation may possibly lead to a modification, in the cause of humanity and justice; but a complete agreement among Medical men of eminence would alone justify the relaxation of rules which the security of society and the repression of evil habits and bad passions require as safeguards, in the absence of a total deprivation of reason through mental alienation. W.

THE EFFECTS OF COMPRESSED AIR ON THE HUMAN BODY.

In the construction of the great bridge across the Mississippi at St. Louis,(a) it has been found necessary to employ workmen in excavating the rock, at a depth of more than ninety feet below the surface of the water. The effects of the highly compressed air on the constitution seem to vary considerably, the great majority of the men (352 in number) being little affected, while there were no less than twelve deaths. For the following details we are indebted to the report of the chief engineer, Captain James B. Eads. As it is intended for general perusal, he enters into a few popular anatomical details, which we are sure our readers will excuse, in consideration of the clearness of the description:—

The first symptom manifesting itself, caused by the pressure of the air, is painfulness in one or both ears. The Eustachian tubes, extending from the back of the mouth to the bony cavities over which the drums of the ears are distended, are so minute as not to allow the compressed air to pass rapidly through them to these cavities, and when the pressure is increased rapidly the external pressure on the drums causes pain. These tubes constitute a provision of nature to relieve the ears of such barometric changes as occur in the atmosphere in which we live. The act of swallowing facilitates the passage of the air through them, and thus equalises the pressure on both sides of the drums, and prevents the pain.

The pressure may be admitted into the air-lock so rapidly that this natural remedy will not in all cases relieve it. By closing the nostrils between the thumb and fingers, shutting the lips tightly, and inflating the cheeks, the Eustachian tubes are opened, and the pressure on the inner and outer surfaces of the tympanum is equalised, and the pain prevented. This method must be used and repeated from time to time, as the pressure is let on, if it be increased rapidly. No inconvenience is felt by the reaction when the pressure is let off, as the compressed air within the drums has a tendency to open the tubes, and thus facilitates its escape through them, whereas increasing the pressure has the effect of collapsing them, and therefore makes it more difficult to admit the compressed air within the cavities of the ears. It frequently occurs, however, from some abnormal condition of these tubes, as when inflamed by a cold in the head, that neither of these remedies will relieve the pain. To continue the admission of compressed air into the lock under such circumstances would intensify the suffering, and possibly rupture the tympanum; therefore the lock tenders were particularly instructed to shut off the compressed air at the moment anyone in the lock experienced pain about the ears; and then, if it could not be relieved by the above means, the lock was opened, and the person was not permitted to go through into the air-chamber. Sometimes fifteen minutes were occupied in passing persons through the first time, after which they usually had no further trouble from this cause.

The fact that the depth penetrated by the air-chamber was considerably greater than that hitherto reached in any similar work, left Captain Eads without any benefit from the experience of others in either guarding against any injurious effects of this great pressure upon the workmen and engineers subjected to it, or of availing himself of any known specific for relieving those affected by it.

When the depth of sixty feet had been attained, some few of the workmen were affected by a muscular paralysis of the lower limbs. This was rarely accompanied with pain, and usually passed off in the course of a day or two. As the penetration of the pier progressed, the paralysis became more difficult to subdue. In some cases the arms were involved, and in a few cases the sphincter muscles and bowels.(b) The patients also suffered much pain in the joints when the symptoms were severe. An average of at least nine out of ten of those affected suffered no pain whatever, but soon recovered, and generally returned to the work.

The duration of the watches in the air-chamber was gradually shortened from four hours to three, and then two, and finally to one hour. The use of galvanic bands or armour seemed, in the opinion of the Superintendent of Construction, the foreman of the chamber, and the men, to give remarkable immunity from these attacks. They were all ultimately provided with them. These bands were made of alternate scales of zinc and silver, and were worn around the wrists, arms, ankles, and waist, and also under the soles of the feet. Sufficient moisture and acidity were supplied by the perspiration to establish galvanic action in the armour, and as the opinion of those most accustomed to the chamber was almost unanimous in favour of this remedy, Captain Eads is very much inclined to believe it valuable.

(a) The novel method of constructing this bridge renders it especially worthy of notice. The piers, which are 515 feet apart, and 497 feet each from the nearest abutment, are sunk in the following manner:—The masonry is commenced at the surface of the water, upon an inverted elliptical-shaped caisson, eighty feet long by forty wide—the dimensions of the pier. This caisson is virtually a large diving-bell, closed at the top, open at the bottom, and filled with air. The mass of masonry, which constantly accumulates upon it, is borne up by the confined air, and as the caisson descends the pressure of the water condenses the air, so that the water rises considerably within it, just as when an inverted tumbler is pressed down into a vessel of water. To give greater buoyancy to the mass, air is forced into the caisson through a vertical passage in the masonry, by a powerful steam pump, and it is thus sunk to the river bed. When this is accomplished, the sand within it has to be removed by a current of water, that is forced down through a tube till it finally reaches the surface of the rock. After this surface has been levelled, the caisson and the passages in the pier are filled with concrete, and the whole pier, thus solidified, rests on a sure foundation. During the recent construction of a bridge on similar principles at New York, one of the caissons exploded with appalling violence. Fortunately, there was no one inside, but men on the outside were knocked down by the current of air, while a dense column of water, fog, mud, and stones was thrown up 500 feet into the air, accompanied by a terrific roar. This column was seen a mile off, and the noise was so frightful as to alarm all the neighbourhood.

(b) It must be recollected that this description of the symptoms is written by a civil engineer, and not a Physician.

Immediately on the manifestation of greater severity in the symptoms, a Hospital boat was fitted up at the pier, and one of the ablest Physicians in the city (Dr. A. Jaminet) was engaged to attend those affected, and also to institute such sanitary measures as his judgment should dictate. A careful examination of the health and bodily condition of every workman was daily made, and none were permitted to engage in the work without the approval of Dr. Jaminet. Those most severely affected were sent to the City Hospital, and had the benefit of the advice and treatment of its Resident Physician, Professor E. A. Clark.

The total number of men employed in the air-chamber of this pier was 352. Of this number, about thirty were seriously affected. Notwithstanding the care and skill with which those most severely attacked were treated, twelve of the cases proved fatal. Each one of these, without exception, was made the subject of careful inquest by the coroner, aided by an autopsy conducted usually by some of our most skilful Surgeons and Physicians.

Whilst the exciting cause in all of these cases was doubtless the exposure of the system to the pressure of the condensed air of the chamber, the habits and condition of several of those who died were, at the time they went to work, such as would have excluded them from it if subjected to the examination of Dr. Jaminet, and the verdict in about one-half of the cases gave a totally different cause for the death of the patient. Nearly or quite all of these deaths happened to men unaccustomed to the work; several of them to men who had worked but one watch of two hours. In contrast to this is the fact that a very large number of the men (certainly one-half of those constantly employed) commenced with the work at its inception, and remained throughout its continuance entirely without injury or inconvenience.

The gentlemen composing the engineer corps of the bridge all visited the air-chamber, some of them very often, either in the discharge of their professional duties or from motives of curiosity, and none of them suffered any injury whatever. Much diversity of opinion was expressed by the Medical gentlemen who investigated the symptoms and held autopsies of the deceased. Some of these gentlemen maintained that a slower transition from the abnormal to the natural pressure would have been less injurious; others claimed, on the contrary, that it was from the too rapid application of pressure in passing from the natural into the compressed air. The fact that the air-lock tenders were in no case affected, although subjected many times during a watch of two hours in the air-lock to rapidly alternating conditions of the atmosphere—at one moment in its normal state in the lock, and five minutes later exerting a pressure of fifty pounds per square inch upon every part of the body—would seem to prove both of these theories unsound, and lead us to believe that in the length of time to which the human system is subjected to this extraordinary pressure exists the real source of danger, and not from any rapid alternations of pressure to which it is exposed.

After the caisson reached the rock, Captain Eads has frequently, when passing through the air-lock, admitted the compressed air into it so quickly that none but those well accustomed to it could relieve the pressure upon their ears, and yet he felt no ill-effects whatever from this rapidly increased pressure; and in going out he has let the pressure off so fast that the temperature in the lock has fallen 32° Fahr. in consequence. These transitions occupied but three or four minutes.

Considering that the air-chamber was briefly visited by thousands of persons, including many delicate ladies, even after it had reached the bed-rock, some remaining as long as an hour in it without any of them experiencing the slightest ill-effects from the pressure, and that no cases of any importance whatever occurred among the workmen after the watches were reduced to one hour, Captain Eads feels satisfied that this is the true cause of the paralysis, and that, by lessening still more the duration of the watches, a depth considerably greater can be reached without injury to the workmen. Too long a continuance in the air-chamber was almost invariably followed by symptoms of exhaustion and paralysis. Dr. Jaminet, on one occasion, remained in the chamber two hours and three-quarters when the depth was over ninety feet, and was dangerously attacked soon after reaching home.

New Workshops Act.—Under the new Workshops Regulation Act, all complaints are now to be addressed to the Factory Inspector of the district, and not to the Officer of Health, as heretofore.

HOSPITAL ACCOMMODATION.

The following Memorandum on Hospital Accommodation to be given by local authorities has been issued by the Medical Department of the Privy Council:—

A large part of the mortality of England is caused by diseases which spread readily by infection from person to person; such as scarlatina, typhus, small-pox. In order to prevent the extension of such diseases in neighbourhoods where they have begun, it is of the utmost importance that (in addition to whatever other sanitary precautions may be requisite) every endeavour should be made to separate the sick from the healthy. This object is comparatively easy when means to attain it are taken early, while cases of the disease are very few; but any interval of delay allows the cases of sickness to multiply, and perhaps at last to become so numerous that endeavours to isolate them cannot succeed.

These considerations are, most of all, important in regard of the poorer parts of the population, because their usually crowded and ill-ventilated dwellings give extreme facilities for infection. And among these classes the sick, generally speaking, cannot be separated from the healthy, except in proportion as proper Hospital accommodation has been provided for the purpose.

Power is given by the 37th section of the Sanitary Act, 1866, to the Local Board, Improvement Commissioners, or town council, or where there is none of these bodies, to the vestry, to provide "for use of the inhabitant within its district, Hospitals or temporary places for the reception of the sick." When this provision has been made, any justice may order the removal to such place of any person suffering from any dangerous infectious disease, if he is without proper lodging or accommodation, or lodged in a room occupied by more than one family, or is on board any ship or vessel.

The present memorandum is intended for the assistance of health authorities who, having to secure the isolation that is needed for cases of dangerous infectious disease, but not yet having the requisite Hospital accommodation within their districts, would provide such accommodation under the powers of section 37 of the Sanitary Act, 1866, or otherwise.

A condition of the first degree of importance for the usefulness of any such accommodation is that the accommodation shall be ready beforehand. The quantity of accommodation wanted will, of course, be widely different in different cases; and it must be remembered that when two infectious diseases are prevalent in one place at one time, patients having the one infectious disease cannot properly be in the same ward with patients having the other infectious disease. In kind, the accommodation ought in all cases to be as good as the authority can reasonably supply. It is believed, however, that, even under these conditions, the cost of providing Hospital accommodation, whether for villages or for towns, needs not ever be proportionately great.

(*a.*) As regards villages, each village ought to have the means of accommodating instantly, or at a few hours' notice, say, four cases of infectious disease in at least two separate rooms, without requiring their removal to a distance. A decent four-room or six-room cottage, at the disposal of the authority, would answer the purpose. Or permanent arrangement might be made beforehand with trustworthy cottage holders not having children, to receive and nurse, in case of need, patients requiring such accommodation. Two small adjacent villages (if under the same nuisance authority) might often be regarded as one.

When, in a village, such provision as this has been made by the authority, and cases of disease in excess of the accommodation occur, the sick must not be crowded together, but temporary further provision must be made for them. The most rapid and the cheapest way of obtaining this further accommodation, may often be to hire other neighbouring cottages; or in default of this, tents or huts may be erected upon adjacent ground.

(*b.*) In towns Hospital accommodation for infectious diseases is wanted more constantly, as well as in larger amount, than in villages; and in towns there is greater probability that room will be wanted at the same time for two or more infectious diseases which ought not to be treated in the same ward. The permanent provision to be made in a town in order to obtain reasonable security against the spread of infectious diseases, should consist of not less than four rooms, in two separated pairs; each pair to receive the sufferers from one infectious disease, the men and women of course separately. The number of permanent beds to be supplied must depend upon various circumstances, chiefly upon the size of the town; but, as no reasonable amount of permanent accommodation could be trusted always to supply the requirements of a place when infectious disease has actually become epidemic, foresight must in the first instance be used, how, in emergency, additional accommodation can be temporarily given, to meet requirements in excess of the permanent provision; otherwise, the authorities may unexpectedly find themselves obliged to leave ill-lodged infectious cases at their homes, much as if no Hospital had been provided. Accordingly, for a town of any importance, the Hospital provision ought to consist of a permanent building, having around it space enough for the erection of temporary structures as occasion may require. Considerations of ultimate economy make it wise to have the permanent building equal to somewhat more than the average necessities of the place, so that recourse to temporary extensions may less often be wanted. In small towns, for instance, if a Hospital consisting of four wards and the necessary administrative offices is to be provided, the original expense of making each ward serve for (say) eight persons, will be far less than double that of making the wards for four. And in any case it is well to make the administrative offices somewhat in excess of the wants of the permanent wards; because thus, at little additional first cost, they will be ready to serve, when occasion comes, for the wants of the temporary extensions, and so to save great inconvenience and outlay.

This memorandum does not propose to deal with the principles on which permanent Hospitals should be built; but, in view of the necessity that they should give the greatest possible assistance for the recovery of the sick, it may be useful to observe that the foremost requisites are the following:—Accessibility of situation, so that the sick may not be exhausted by long journeys, and, as far as consists with accessibility, an open uncrowded neighbourhood; adequate ward-space for each patient, approaching as near as circumstances allow to 2000 cubic feet, with 144 square feet of floor for each bed; thoroughly good provision for ventilation—*i.e.*, for sufficient unceasing entrance of pure air and of exit of ward air, with arrangements also for immediate change of air in the whole ward, when necessary; and with perfect security against the possibility of any

foul air (as in the privies and sinks) entering the wards; means of warming the wards in winter to a temperature of 60° Fahrenheit, and of keeping it cool in summer; means for safely disposing of excremental matters and of foul slops, and for cleansing and disinfecting infected linen and bedding; facilities for obtaining, in the use of the Hospital, the very strictest cleanliness of every part.

When the pressure of a particular epidemic requires temporary extension of the accommodation, huts, or, in the summer and autumn, tents, erected on the adjacent ground, will sufficiently answer the purpose; and, if the administrative part of the original building have been thoughtfully devised, these temporary structures may be of very simple construction.

The tents may be either such as the bell tent or Hospital marquee of her Majesty's army, or one of the various forms of tent and marquee used in civil life. Huts may be of wood or iron. Both tents and huts need to be carefully arranged and regulated, especially in the following respects:—

As to Tents.—It is essential to secure the dryness of the ground upon which they are pitched, by trenching around and between them, so as to carry off all rainfall and prevent the lodgment of moisture. The tents should everywhere be distant at least a diameter and a half from each other. The floors should be boarded. The approaches should be paved or otherwise prepared, to prevent them being trodden into mud in wet weather. It is especially requisite that abundant proper means be provided for the reception of refuse matters, and that no casting of slops or other refuse upon the ground in the vicinity of the tents be allowed. In the distribution of patients in active stages of disease, not more than one patient should be assigned to a bell tent of the ordinary regulation size, and not more than three such patients to the regulation Hospital marquee.(a) In other forms of tents the number of patients should be regulated in similar proportions.

As to Huts.—Dryness of site is, as in the case of tents, of the first importance. Each hut should be trenched round. Its floor should be raised a foot or a foot and a half from the earth, so as to permit the free underpassage of air; but care must be taken to prevent the lodgment of moisture or impurities beneath the floor. A distance not less than three times the height of a hut should intervene between any two huts, and each hut should be so placed as not to interfere with free circulation of air round other huts. In huts, as in permanent buildings for the treatment of infectious diseases, not less than 2000 feet cubic space, with 144 square feet of floor, should be given to each patient. The ventilation of huts, also, is of equal importance with that of permanent Hospital buildings. It is best secured by the combination of side-windows with roof-opening, the latter protected from rain, and running the whole length of the ridge of the roof. The windows, capable of being opened top and bottom, should not be fewer than one to each pair of beds, or in large huts one to each bed, nor should be of less size than the sash-window in common use for houses. The ventilating opening beneath the ridge may have flaps, movable from within the tent by ropes and pulleys, so that the opening to windward can be closed, if necessary, in high winds. Double-walled wood huts may have additional ventilation by the admission of air beneath this outer and inner wall, and its passage into the interior of the hut through openings with movable covers at the top of the inner lining. The roof should be covered with waterproof felt; the edges of the felt fastened down by strips of wood, not by nails. The hut should be warmed by open fireplaces, fixed in brick stove-stacks placed in the centre of the floor, the flue being carried through the roof.

The sewerage and scavenging arrangements, both of tents and huts, demand very careful consideration. When the tents or huts are placed within the area of a public system of sewerage and water-supply, no difficulty will arise; for drains may be laid into the public sewer, and water-closets may easily be adopted. But where no system of sewerage exists, the disposal of excremental matters and other refuse will require special provisions. In regard to excrement disposal under such circumstances, the best method to adopt is the dry-earth system, or, failing this, a pail system, with careful arrangements for the disinfection and subsequent disposal of the excrementitious matter (see the Departmental Report, "On Certain Means of Preventing Excrement Nuisances in Towns and Villages"). All slops and other refuse should be deposited in metal pails, and removed from the tents and huts at frequent intervals, and so disposed of as not to become a nuisance. Too much attention cannot be given to the careful scavenging of tents and huts, and to the proper disposal of the refuse from them; and the servant or servants to whom the duty is assigned should be under very vigilant supervision.

If no cottage or other building has been adapted permanently for the administrative purposes, or can be rendered available for them, the kitchen and other necessary offices (larder, washhouse, bedding and foul linen stores, additional nurses' accommodation, nurses' water-closet or pail-closet, dead-house, etc.) are most readily provided by simply constructed huts or tents, conveniently arranged near the huts or tents which contain the sick.

Medical Department of the Privy Council Office, August, 1871.

(a) *Regulation Bell Tent.*—Diameter, 14 ft.; height, 10 ft.; area of base, 54 square ft.; cubic space, 513 ft. *Regulation Hospital Marquee.*—Length, 29 ft.; width, 14 ft.; side walls, 5 ft. 4 in.; height to ridge, 11 ft. 8 in.; cubic capacity, a little over 3000 ft.

REVIEWS.

A Digest of Facts relating to the Treatment and Utilisation of Sewage. By W. H. Corfield, M.A., M.B. Oxon, Professor of Hygiene and Public Health at University College, London. Second Edition, corrected and enlarged.

That a second edition of Professor Corfield's work on Sewage has been demanded in so short a time proves that the interest of the public in its subject is greater than that excited by most works on sanitary matters. Wealth is of the first consideration in England, health of the second; and as the utilisation of sewage certainly signifies wealth, whilst its treatment has a definite bearing on health, the public in their anxiety for the former probably do not object to obtain with it some information on the latter. Dr. Corfield's work is a very elaborate treatise. We can recommend it to our readers as containing a large amount of information and some able reasoning. We cannot, however, attempt an extended review of its contents; but this is less necessary as Dr. Corfield's conclusions have been summed up ready to our hands at the termination of his work. The author lays down the obvious principle "that the method which does, in practice, when it is anything like efficiently carried out, remove at once and completely from the vicinity of habitations the various sorts of refuse in the most expeditious manner, is the one which must be the most conducive to health." From his premises he draws the conclusion that all *dry* methods of treating sewage violate this principle—that they leave the excremental matters in and about the house too long. Even the dry earth system is open to this objection. "Although it has been shown to have a great advantage when it has replaced midden-heaps and cesspools, we maintain, with Dr. Rolleston and with Dr. Parkes, that it has not been shown that the compost is disinfected as well as deodorised." Dr. Corfield urges that the deodorisation alone of a noxious compound only renders it more dangerous. If coal-gas were deodorised, accidents would be more numerous. Carbonic oxide, the most poisonous ingredient of coal-gas, the emanations of typhus fever, are odourless. It is only a presumption that all danger from the noxious emanations of excrementitious matter is removed by mixing it with earth. Then, also, there is the objection that, if the earth were supplied in too small quantity, too moist, or of bad quality, or the air be very damp, or the compost wetted through carelessness or otherwise, danger of infection would at once arise. The author concludes, with Miss Nightingale, that "the true key to sanitary progress in cities is, water-supply and sewerage. No city can be purified sufficiently by mere hand labour in fetching and carrying." The results of the water-carriage system, the author believes, despite of its disadvantages, to be unapproachable by other modes of treatment. He traces to it, in conjunction with other sanitary improvements, in certain towns the practical annihilation of cholera, and the extermination of typhoid. "We are sure that it is the speedy removal of the refuse matters that has accomplished this; because, in towns where free exit has not been allowed for the sewage from the sewers, the death-rate of typhoid fever has only very slightly diminished, or has slightly increased, or even (in one case) has very considerably increased." The mortality of phthisis, the author also finds, has been diminished by the construction of deep-drain sewers; in one case the diminution has amounted to nearly half the former number of deaths. A water-logged subsoil is a potent cause of phthisis—a fact which suggests the necessity of impervious pipe sewers. How, then, is the sewage to be disposed of? After discussing the relative advantages of filtration, precipitation, and irrigation, the author finds that irrigative farming alone fulfils the three conditions of purifying the sewage, insuring a profitable agricultural return, and not endangering the health of the neighbourhood. In conclusion, he writes—

"We are, then, reduced to the following simple issue: wherever it is possible, irrigation should be carried out, the sewage having been previously freed, by one or other of the methods described, from the offensive suspended matters, which must be deodorised to prevent the production of a serious nuisance. Wherever, on the other hand, irrigation is practically impossible, intermittent downward filtration, through soil or other suitable material, affords the means of satisfactorily purifying the sewage."

As we have hinted, Professor Corfield's book will well repay the study of all who are interested in the great subject of the increase of national health and national wealth.

Remarks on Diabetes, especially with reference to Treatment. By William Richardson, M.A., M.D., Member of the Royal College of Physicians, London. London: Lewis. Pp. 122.

This exceedingly interesting little work might, perhaps, have been rendered still more interesting had the writer abstained from that which to most men is too tempting—the endeavour to make the narrative of a case a complete treatise on any particular subject. The case—and it is one of no small interest—is, unfortunately, the author's own. Two years ago he was attacked with severe diabetes mellitus, which unfortunately means, in too many instances, not only loss of Professional position, but loss of life also. The author tells us he was his own Physician. As a rule, the advisability of practising on oneself is something more than questionable, and, in the sister

profession of the law, has given rise to the saying that "he who is his own lawyer has a fool for his client." Even stronger expressions might be used with regard to him who is his own Doctor. However, "all's well that ends well," and Dr. Richardson—it will be noted that this is not the distinguished physiologist—is to be congratulated on his success in obtaining for himself such a measure of health and strength as he now enjoys, and also in having secured by like means something of the same for others.

It can easily be conceived with what avidity a man labouring under such a disease would scan literature, periodic and permanent; and we are certainly not inclined to fall foul of Dr. Richardson's reading.

Our author thinks that diabetes may arise from two causes—1st, an exaggerated natural sugar-formation of the liver; 2nd, a want of power to convert sugar and amylaceous matter into amyloid substance. As to the diagnosis of these, he says the first exists where the appetite is voracious, the patient in tolerably good condition, and the pulse nearly normal; the second is indicated by small appetite or even a loathing of food, weak and quick pulse, and bad general condition. In the former case stimulants are badly borne, in the latter they do good.

In another part he says—"Practically, so far as sugar and starchy substances are concerned, there are three types of diabetes. In the first, by the total suppression of these substances, all sugar disappears from the urine, and this state of things generally continues so long as the diet is restricted. In the second, the sugar is only diminished, and this diminution is often temporary. In the third no effect is produced." In his own case Dr. Richardson at first strictly limited his diet till he came to loathe his food; then he gradually relaxed his system of dieting with benefit. No sugar accumulated in his system. The tests he employed of anything like error committed in his diet were these:—1st, dryness of the mouth, especially at night; 2nd, increased quantity of urine; and 3rd, weight of body. Gradually, emboldened by these, he relaxed his diet, but at the same time increased his walking exercise. His present diet is as follows:—

Breakfast.—Bacon well done, fish or eggs, brown bread or cakes eaten with plenty of good fresh butter; at times, ordinary bread well toasted.

Luncheon.—Eggs or soup, with maccaroni or rice; or cold meat, with a tablespoonful of brandy or two glasses of claret in a tumbler of water.

Dinner.—Soup or fish, meat, green vegetables, potatoes (sparingly), cheese, at times pale ale, and a little dry fruit.

This, it will be noted, is liberal diet for a diabetic, and could not be persevered in were it not for abundant exercise and other precautionary measures. In ordinary cases the author recommends the diet to be gradually reduced to its simplest elements, dropping first one thing, then another; but no sudden change. As soon as anything like loathing occurs, he relaxes; for he says, what is quite true, patients will break through, do what you like, and thus is lost confidence between Physician and patient. Of all things, Dr. Richardson seems to lay greatest stress on walking exercise, which should be persevered in, notwithstanding weakness and total disinclination for exertion. Walks, however, should never be so long that they over-fatigue the patient; that is a great mistake, and even too long journeys in railways are to be avoided.

The third thing in treatment Dr. Richardson insists on is the value of the warm bath, but we are inclined to put the vapour bath far before it. The great object is to promote perspiration, and for this purpose there is no comparison between the two methods. If, however, the bath be alkaline, the disadvantage is more than neutralised, for alkalies seem to exercise an extraordinarily beneficial influence on diabetes. Our readers will remember what was said on this point some time ago in our review of Professor Seegen's work on Diabetes.

To promote free action of the skin warm clothing is strongly recommended. Winter and summer the patient should be enveloped in flannel.

As to medicines, the great remedies advised are iron, nux vomica, and chlorate of potass, or small quantities of a chalybeate water. If the patient complains of acidity, potass may be given. Cod-liver oil or some other form of fat or oil should be prescribed. As to opium, Dr. Richardson found it do harm. Vichy water he recommends, but says it must be taken with care; not too much except there be acidity. The Carlsbad waters so much recommended by Dr. Seegen resemble those of Vichy, except that they are slightly purgative.

Finally, we again take leave to recommend this as a book well worthy of the attention of the Profession. As the work of a diabetic, it is sure to contain everything of importance on the subject; as that of a man who has cured himself, it is certain to contain sound rules and axioms which others may follow.

OBITUARY.

DR. THOMAS CASEY,

Son of Thomas Casey, Esq., of Cork, born 1795, M.D. Edin., 1818. Started as Physician in Cork; elected almost immediately Physician to Dispensary; elected Physician to North Infirmary, Cork, 1823; resigned and left Ireland through illness 1840, and elected Consulting Physician; afterwards settled at St. Albans, and at once (1843) helped to found the Dispensary (now Hospital), and served it as Physician for twenty years, till compelled by age to give up work in 1863, when he was appointed Consulting-Physician, and presented by subscribers with handsome testimonial; was also Consulting-Physician to West Herts Infirmary, 1846—1855. Married to daughter of late Major Hawkins, of Indian army, who died three months before him. Died after lingering and painful illness, August 21, 1871.

EDWIN SEPTIMUS GREEN, L.R.C.P. and L.R.C.S. Edin.

This promising young Surgeon met with his death, last week, under the following melancholy circumstances. He was superintending some haymakers, and was harnessing a leading horse to a cart. He became entangled in the traces, and the animal, taking fright, started off, dragging him along the road a mile and a half, and causing his death. He was Surgeon to the Settle and Carlisle Railway, Medical Officer to the Settle Union, and had been lately Resident Medical Officer of the York Dispensary. He was educated at Guy's.

DR. EMIL ARENDRUP, OF COPENHAGEN,

Died at St. Cloud, on August 14, after a short illness, brought on by the great labour and responsibility attending his voluntary services in the Hospital there. The French, Austrian, and Danish Governments had just conferred Orders on him, as a reward for his noble conduct during the siege of Paris. Dr. Arendrup passed some months in London two years ago, and his loss will be deeply felt by many of our readers. A brilliant future was opening before our young friend, but his career has been suddenly cut short. *Bella! horrida bella!*

MEDICAL NEWS.

Apothecaries' Hall.—The following gentleman passed his Examination in the Science and Practice of Medicine, and received a Certificate to practise, on Thursday, August 24, 1871:—

Newberry, William John, Liverpool-road, Holloway.

The following gentlemen also on the same day passed their first Professional examination:—

Dickinson, William Wood, Guy's Hospital.
Hamlin, William Thorne, St. Mary's Hospital.
Maybury, Aurelius Victor, St. Thomas's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Alexander, Reginald G., M.B. of Caius College, Cambridge—Physician to the Bradford Infirmary and Dispensary, Yorkshire, *vice* Dr. Bourne, resigned.

Bowring, George, M.R.C.S.E., L.S.A., Medical Associate King's College—One of the Honorary Surgeons at the Royal Infirmary, Manchester.

Hughes, Mr. James Wilson, Secretary and Registrar of the Richmond, Whitworth, and Hardwicke House of Industry Government Hospitals, Dublin—to the additional position of Registrar of the Westmoreland Lock Hospital, Dublin, *vice* Surgeon Benjamin F. McDowell, resigned.

MacEwen, William, M.B., C.M.—Casualty Surgeon to the Board of Police, Glasgow.

Morison, Mr. R. P.—House-Surgeon to the Hereford Infirmary.

Payne, G. S., M.R.C.S.E.—House-Surgeon to St. Bartholomew's Hospital.

Rice, Thomas David, L.A.H. Dublin, L.M.—Resident Apothecary and Accoucheur to the Westmoreland Lock Hospital, Dublin, *vice* Mr. John Owens, L.R.C.S.I., L.K.Q.C.P.I.

SHIPMAN, GEORGE W., L.R.C.P.L., M.R.C.S.E.—Surgeon to the Grantham District of the Great Northern Railway.

WATTS, GEORGE H., M.R.C.S.E., L.S.A.—Medical Officer for the Matcham District of the Newbury Union.

NAVAL AND MILITARY APPOINTMENTS.

ADMIRALTY.—Dr. William Henry Colahan and Mr. Frederick Taylor have been confirmed as Assistant-Surgeons in Her Majesty's Fleet, with seniority of August 15, 1870.

MEDICAL DEPARTMENT.—Surgeon-Major Andrew Leith Adams, M.D., from 22nd Foot, to be Staff Surgeon-Major, *vice* Staff Surgeon Leslie Ogilby Patterson, appointed to the 22nd Foot; Staff Assistant-Surgeon Eugene Francis O'Leary, to be Staff Surgeon, *vice* James Alfred Turner, placed on half-pay; Assistant-Surgeon Thomas Rawlings Mould, M.D., from the Royal Artillery, to be Staff Surgeon, *vice* Staff Surgeon-Major Anthony Dickson Home, C.B., V.C., seconded; Staff Assistant-Surgeon John Norman Davis, M.D., from half-pay, to be Staff Assistant-Surgeon, *vice* Robert de la Cour Corbett, M.D., appointed to the Royal Artillery; Staff Assistant-Surgeon Thomas Alexander Clapperton Macarthur, from half-pay, to be Staff Assistant-Surgeon, *vice* Eugene Francis O'Leary, promoted.

To be Surgeon-Major: Surgeon James Bain, M.D. To be Surgeons: Assistant-Surgeons David Simpson, M.D., Henri Jules Blanc, M.D., John Davies, William Dymock, B.A., Edward Sexton, M.D.

ROYAL ARTILLERY.—Staff Assistant-Surgeon Robert de la Cour Corbett, M.D., to be Assistant-Surgeon, *vice* Thomas Rawlings Mould, M.D., promoted on the Staff.

22ND FOOT.—Staff Surgeon Leslie Ogilby Patterson, to be Surgeon, *vice* Surgeon-Major Andrew Leigh Adams, M.D., appointed to the Staff.

70TH FOOT.—Staff Assistant-Surgeon Humphrey Carden Gillespie, M.D., to be Assistant-Surgeon.

BIRTHS.

CALDWELL.—On August 27, at Richmond, the wife of J. Caldwell, Esq., Surgeon R.N., of a daughter.

CHARLTON.—On August 20, at 7, Eldon-square, Newcastle-on-Tyne, the wife of Edward Charlton, M.D., of a son.

COLLUM.—On August 29, at Croy, Surbiton, Surrey, the wife of Robert Collum, M.D., of a son.

JAMESON.—On August 26, at Grenada-road, Southsea, the wife of Dr. Thos. Jameson, Surgeon R.N., of a son.

MASSY.—On August 29, at Netley, near Southampton, the wife of H. D. Massy, Staff Assistant-Surgeon, of a son.

MARRIAGE.

SIMPSON—SAINSBURY.—On August 22, at the Abbey Church, Romsey, Hants, Spencer H. Simpson, Esq., to Minna, only daughter of Henry Sainsbury, M.D., Linden House, Romsey, Hampshire.

DEATHS.

BARRACK, ALEXANDER, M.D., at Brackley Villa, Bushey-hill-road, Camberwell, on August 21, aged 71.

CARPENTER, W., eldest son of W. Guest Carpenter, F.R.C.S., of Amersham, lost on his passage home from India, on July 12, in his 17th year.

HARGRAVE, WILLIAM, Esq., eldest beloved son of Elizabeth and the late William Henry Hargrave, Surgeon, of Upper Holloway, and Millbrook, Cornwall, at his mother's residence, 5, Lordship-terrace, Stoke Newington, on August 29, aged 47.

KING, LOUISA ADELINE, infant daughter of William Talbot King, Surgeon, 74, Victoria-park-road, Hackney, on August 27.

KNOWLES, EDMUND YALDEN, Surgeon, at Farnham, Surrey, on August 26, aged 58.

MCCREA, JOSEPH, R.N., M.R.C.S., late of 37, Compton-terrace, Islington, at Heathlands, Weybridge, on August 25, aged 78.

BOLT, ROBERT ANDREW, Surgeon, of 108, Blackman-street, Borough, at Ramsgate, of consumption, on August 23.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

BRISTOL LUNATIC ASYLUM.—Assistant Medical Officer. Must be properly qualified and registered. Applications and testimonials to Mr. J. F. Williams, Clerk to the Visitors, Council-house, Bristol, on or before September 13.

BRISTOL ROYAL INFIRMARY.—Dispenser. Must be competent to take entire charge of the Dispensary Department. Applications and testimonials to the Committee, on or before September 9.

CHRISTCHURCH UNION.—Medical Officer for the Eastern District. Candidates must be properly qualified and registered. Applications and testimonials to Mr. Henry Pain, Clerk, on or before September 4. Election the same day.

GOWER UNION (WESTERN DISTRICT).—Medical Officer for this district, including the Workhouse. Candidates must have the qualifications prescribed by the General Orders of the Poor-law Board. Applications and testimonials to the Clerk, Quay-parade, Swansea, on or before September 9. Election on the 12th.

ISLINGTON, VESTRY OF ST. MARY.—Medical Officer of Health and Analyst. Candidates must be duly qualified and registered. Applications and testimonials to Mr. John Layton, Vestry Clerk, on or before September 18. Further particulars may be obtained at the Vestry Office.

KENT AND CANTERBURY HOSPITAL.—House-Surgeon and Dispenser. Must be duly qualified and registered under the Medical Act, 1858. Applications and testimonials to the Secretary, at the Hospital, on or before September 29. Personal attendance is desirable. Further particulars of the Secretary.

LEXDEN AND WINSTREE UNION.—Medical Officer for the Eighth District. Candidates must possess the qualifications prescribed by the General Orders of the Poor-law Board. Applications and testimonials to Mr. W. Howard, Clerk to the Board, on or before September 5. Election on the 6th.

MONMOUTH HOSPITAL AND DISPENSARY.—Dispenser. Applications and testimonials to the Committee, on or before September 5.

NORFOLK AND NORWICH HOSPITAL, NORWICH.—House-Surgeon; must have both Medical and Surgical qualifications. Applications and testimonials to Mr. T. R. Tallack, on or before September 8. Election on September 16.

PARISH OF UNST, SHETLAND.—Medical Officer. Applications and testimonials to Mr. White, Inspector of the Poor.

ST. SAVIOUR'S UNION, SURREY.—District Medical Officer for the Third District. Candidates must be duly qualified and registered. Applications and testimonials to Mr. James J. Blake, Union Offices, John-street West, Blackfriars-road, S.E., on or before September 21. Election on the same day.

TOWCESTER UNION.—Medical Officer for the Workhouse and the Towcester District. Candidates must be properly qualified and registered. Applications and testimonials to Mr. W. Whitton, Clerk, on or before September 19.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Christchurch Union.—Mr. Watmough has resigned the Eastern District; area 14,311; population 4321; salary £70 per annum.

St. Saviour's Union.—The Third District is vacant; salary £130 per annum.

Tenterden Union.—Dr. Provis has resigned the Biddenden District; area 7207; population 1412; salary £40 per annum.

APPOINTMENTS.

Bridgwater Union.—Mr. Francis J. C. Parsons, L.R.C.P., M.R.C.S., L.S.A., to the Middlezoy District.

Sudbury Union.—George Stevens, L.F.P. & S. Glasg., L.S.A., to the Sixth District.

ST. BARTHOLOMEW'S HOSPITAL AND COLLEGE.—PRIZE EXAMINATIONS, 1870-71.—Jeaffreson Exhibition, £20 per annum for two years, E. Crétin. Senior Scholarship in Medicine, Surgery, Materia Medica, and Therapeutics, £75, H. E. Bridgeman, W. Furner, T. Strafford (æq.). Senior Scholarship in Anatomy, Physiology, and Botany: 1, £50, C. Firth; 2, £25, R. W. Leftwich. Junior Scholarships: 1, £50, E. Crétin; 2, £30, P. H. Dicken; 3, £20, A. F. Stevens. Kirkes Medal, D. P. James. Bentley Prize, H. Taylor. Wix Prize, H. E. Bridgeman. Hichens Prize, F. E. Jackson. Practical Anatomy, Sen.: Foster Prize, P. Benson; 2, H. J. Ilott; 3, H. A. A. Nicholls, H. Wilcox; 5, E. Milner, F. W. Strugnell, J. L. Whitsed; 8, J. F. Dixon; 9, P. Haig; 10, W. L. Webber. Practical Anatomy, Jun.: Treasurer's Prize, G. Andrew, S. Verco; 3, J. T. Duncan; 4, A. F. Stevens; 5, J. Mills; 6, H. Boulter, P. H. Dicken; 8, S. J. J. Weakley; 9, J. W. Groves; 10, E. J. Burgess.

MEDICAL DEPARTMENT OF THE POST-OFFICE.—Twenty-five additional Medical officers have been appointed in the provinces in connexion with the Post-office, and it is the intention of the Postmaster-General to appoint Surgeons to other post-offices, as well as to some of the suburbs of London just outside the jurisdiction of the present district Medical officers.

THE Local Board of Great Malvern have appointed an Officer of Health for six months.

THE Library of the Obstetrical Society will be closed from Thursday, the 7th, to Wednesday, September 20, both days inclusive.

MR. J. C. SAUNDERS, of Downing College, Cambridge, has recently obtained the Zoology Exhibition at the Preliminary Scientific (M.B.) Examination of London University.

DR. H. ALLEYNE NICHOLSON has resigned his lectureship in the Medical School of Edinburgh, and has settled in Toronto in Canada.

THE second session of the new Medical School of Ceylon, which has been successfully established, has begun.

A NEW Hospital has been opened at Rugely, and is calculated to hold eighteen beds.

SUICIDES.—In London there is one suicide to 175 deaths; in New York one in 172; in Vienna one in 160; in Paris one in 72. In France the number of suicides from drunkenness was, in 1848, 141; in 1866, 401!

THE Committee of the Manchester Auxiliary Fund for the Sick and Wounded in the War has just distributed £1,200 amongst the local Medical charities, that sum being the surplus of the fund.

THE Bombay Government has decided on building two new lunatic asylums—one in the Concan, the other in the Deccan.

A Healthy Health-resort.—By the Registrar-General's last Quarterly Report, it appears that for ten years past the mortality of Folkestone has averaged 16·4 per 1000.

Small-pox in Wigan.—Ten deaths from small-pox have been registered in Wigan between the 10th and 14th ult.; of these nine were unvaccinated.

Small-pox in Gosport.—In consequence of small-pox of a malignant type having made its appearance at Gosport, the officers and men of her Majesty's ships are prohibited from going into the neighbourhood.

Quarantine is enforced in the Italian ports on all vessels from the South and the Baltic.

Quarantine Powers at Liverpool.—Considerable discussion took place at the last meeting of the Liverpool Health Committee, on a communication received from the Board of Trade, for information as to the extent of the power of the local authorities for restricting immigration from countries in which cholera is rife, when it appeared that no power existed in any local authorities to restrain immigrants from going about the town, or to detain them in quarantine, on suspicion of cholera or choleraic diarrhœa, and a reply representing their present restricted powers has been forwarded to the Board of Trade. The Secretary of the Privy Council Office has informed the Liverpool magistrates that the Lords of the Council have been advised by the law officers of the Crown that a summary jurisdiction exists under the Contagious Diseases (Animals) Act. The objection was taken the other day that the magistrates had no summary jurisdiction under the Act.

The New Local Government Board. — One of the difficulties which constantly presented itself in carrying out sanitary reforms and measures, was the difficulty of determining to which authority to appeal in cases of a necessity for enforcing the law. The responsibility was constantly repudiated, and the consequence was, nuisances became perpetuated, and the law was set at defiance. The new Local Government Board Act will do away with some of this uncertainty. The Board will exercise undiminished powers in respect to the administration of the poor-laws. It will be arbiter in all questions connected in any degree with the public health, vaccination, registration, drainage, adulteration of food, sale of poisons, public and town improvements, common lodging-houses, and nuisances of any kind detrimental to health.

Statistics of Lunacy.—The Twenty-fifth Report of the Commissioners in Lunacy bears date March 31, and has just been issued. The number of insane persons of all classes, in England and Wales, on the 1st of January last was 56,755, being an increase of 2,042 over the number in the previous year. Of this increase 1,868 were paupers, and 174 were private patients. The pauper patients have increased in number, in county and borough asylums, by 999; in Broadmoor Criminal Asylum, by 8; in workhouses, 803; and as out-door paupers, 245; while this class has decreased, in registered Hospitals, by 55, and in licensed houses, by 104. The private patients have increased in number in county and borough asylums, by 28; in registered Hospitals, by 76; in naval and military Hospitals, by 156; and as "single patients," in private care, by 36; while they have decreased in licensed houses, by 112, and in the Broadmoor Criminal Asylum, by 10.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

Dr. W. O., Derby.—We regret that we have not the address of the writer of the letter.

M. A. B. need not have assured us that her remarks were "well meant, if unwelcome." We are fully alive to the interest she takes in, and the ability she often shows in writing on, matters affecting the public health; but we must be allowed to retain our opinions on the subjects of bathing and the use of medicine judiciously prescribed and taken with care. The "indiscriminate" denunciation of the use of mercury as a purgative by our correspondent is as dangerous and as foolish as the "indiscriminate" use of that remedy—powerful for good as well as evil.

George II. employed Mead in his family whilst Prince of Wales, and afterwards appointed him his own Physician on succeeding to the throne in 1727. In practice Mead had been absolutely without a rival. His average receipts had, during several years, amounted to between £6000 and £7000—a very large sum in those days. His treatise on the "Small-pox and Measles" was in Latin, and printed in 1747. He died on February 16, 1754, in his 81st year, and was buried in the Temple Church.

"Dreams."

To the Editor of the Medical Times and Gazette.

Sir,—"M.D." asks in your journal of this week a remedy for dreaming. After a fair trial I have found nothing so efficacious as the following pill, to be taken each night at bedtime:—℞. gum camph. gr. iij., extract hyoscyam. gr. jss., ft. pil. i., h. sumend. Also a free sponging of the face, neck, and shoulders in cold water, and subsequent rapid drying and friction with a rough towel. I am, &c.,

Maidstone, August 28. L. S. A.

Medical Reform.

To the Editor of the Medical Times and Gazette.

Sir,—Your correspondent, "An Old University College Man," draws a very gloomy picture, indeed, of a Doctor's career, and one which, if generally true, would deter anyone from entering the Profession. That a certain number of Doctors are cut off from all cultivated society is, I think, the fault, not of the Profession, but of the men themselves. They are found to be very indifferently educated and mannered, and consequently they cannot occupy the same social position that they naturally would occupy were they not so. I do not think that, if he does his duty, the clergyman is brought less in contact with the poor than his Medical *confrère*; but that, man for man, clergymen occupy a better social position than we do must be admitted; and the remedy is simple. Let our standard of general education be the same as for clergymen, and the disparity will cease; but your correspondent considers this impossible. I must confess my inability to understand the reason of it. Can a man possibly have too good a general education as a preliminary training to a purely scientific career? The sale of drugs in open surgeries and the private dispensing, two evils which greatly lower our Profession, would, I think, entirely disappear were the standard of our general education very much raised. The system of employing unqualified assistants is one which cannot be too strongly condemned, and is, as your correspondent remarks, an evil which, if persevered in, will ruin every plan of reform. I am, &c., R. H. L.

The "Medical Directory."

To the Editor of the Medical Times and Gazette.

Sir,—I have just had to fill up a return for Churchill's "Directory," and being at a loss concerning certain distinctions of a local nature which have fallen to my lot, as to whether they ought to appear in that book, I turned to its pages to see whether it was customary so to adorn oneself, and to my surprise I found it so. At page 377 may be seen distinctions of the following and local kind, so set forth for the benefit of admiring fellow-townsmen:—

"Member of Council of Yokelshire Archæological and Topographical Association; Honorary Secretary University of Cambridge Local Examinations; Member of Council of West Yokelshire Educational Board; Member of the Slocum-Pogis Microscopical Society, of the Slocum-Pogis Society of Industry and Fine Art, and Vice-President of the Slocum-Pogis Mechanics' Institute; author of "On Mural Paintings in St. Judas', Slocum-Pogis."

I ask, Sir, Is this a way in which the valuable room in Churchill's "Directory" ought to be taken for the purposes of local advertisement? If so, in the next issue I shall fill a column. I am, &c., F.R.C.S.

*** Constantly using that excellent work, the "Medical Directory," we are reminded of the vanity of human nature, which leads many of our brethren to add to their names particulars which can be of no interest to the Profession, and confer no distinction upon themselves.

A Remedy for Cholera!

To the Editor of the Medical Times and Gazette.

Sir,—I am obliged by your giving me an opportunity of stating how I treated a case (one in particular) of cholera and many cases of severe choleraic diarrhœa. I will, therefore, begin by saying that some author (I forget who), in describing the symptoms of cholera and its treatment, terminated his statement by saying that cholera (a redundance of bile) was a wrong term, and that acolia (without bile) was more correct, as it arose from a total suppression of the action of the liver. On reading this I thought Why not give fel bovis inspiss.?—that will restore bile to the system (if of any benefit), and afford time for other remedies! The next case I had I gave it, and it fully realised all my hopes. I had for years previously used it for simple diarrhœa, with nothing else, with great success. I will now give you a statement of all I did for my patient, the only record I possess:—

March 26, 1851.—Visited D. G. at 11 p.m.; found him in a partial state of collapse from Asiatic cholera with the usual symptoms of the stage. My opinion was by no means favourable to his recovery, but I prescribed ox-gall in two-grain doses every four hours, with calomel, opium, and stimulants. I considered the fel bovis my sheet anchor. I was not disappointed; my patient recovered. This man was a soldier, discharged for disease of the heart; had cholera in India, and was aware of the nature of his attack. He was living a short time since. Since I was told of the acid draught for diarrhœa I have given—℞. Acid sulph. dil. gr. xx., tr. opii gr. x., aqua 3xii. ft. haust., s.s., and one hour after fel bovis inspiss. gr. ij. This generally succeeds, but occasionally requires three or even four doses of each. So thoroughly am I convinced of the great benefit of the fel bovis that nothing should induce me to omit giving it.

The fel bovis inspiss. is a most invaluable remedy for very many other disorders, but is little used. But now comes the difficulty. Is it good or bad? The first I procured was good (very fortunately), the second pot villanously bad, made a patient (not with cholera or anything of that description) excessively ill; it purged him furiously; to me quite unaccountable; looked at the extract; not like the first; at once saw it was made of vitiated bile. It was dark green, or as it has just occurred to me, had been kept too long before inspissation, and became decomposed. After this I always personally inspected it before purchasing. The colour of the extract should be of a dull golden bronze, or something like golden syrup when it is poured out—not a tinge of green; if there is it is bad and unfit for use—at least, my experience teaches me so, and I will not use it. I try the colour by spreading a small quantity on white paper.

I am, &c.,

August 26. An Old Pupil of John Abernethy.

Private Practice.

To the Editor of the Medical Times and Gazette.

Sir,—Staff Assistant-Surgeon Lennox Jenkins, rather a count, and in his own estimation standing high, was asked not long ago to visit patients for a civil Practitioner. So, mounting a pair of spectacles, a frock-coat, and a

frilled shirt, he consequentially commenced the rounds. A bronchitic Jew, with a red cap on, suggestive of Daniel in the lions' den, gave very little trouble; but downstairs Mrs. Moses Levy was in ambush to know the real, the candid opinion on the case, and whether or not the regular Medical attendant had done everything, or possibly given the wrong medicine. Next, a nervous publican very condescendingly offered refreshment. A dyspeptic policeman, evidently a patron of questionable Medical literature, gave a diagnosis, even abstrusely beyond Brown-Séquard, of spinal marrow reacting on sciatica of the heart. A phthisical clerk of course was getting better, and if he could only shake off the hacking cough, if he could only put on flesh, soon would he be about again to work for the wife and the chicks. Poor fellow! Sad enough was his condition. Familiarity with such scenes does not make our hearts callous; and the only apology tendered for the frivolous vein pervading this and other communications lies in the attempt temporarily to forget the depression daily to contend with.

But to continue. The next was an interesting case of locomotor ataxy, caused, according to statement, by exposure to rain and thunderstorms on a long march in India. The condition, creeping on gradually, was ushered in by numbness of the soles of the feet as if walking on ice, then working upwards, giving the impression of cords being tied around the joints, together with the feeling as if sitting on indiarubber. Next, pain commencing from the back, ran round the chest, as of a hot iron passing over the ribs, or the skin being torn off with pincers. He had no control over the bladder, a little over the rectum; his wasting legs could be splashed about a little if the eyes were fixed on the ground; yet the memory, the intellect, and the speech remained clear, and his handwriting admirable. He stated that galvanism had been of no service, that he had had syphilis, was temperate (but as to the latter, what man ever confessed the contrary?) Significant enough, his wife lost one husband from typhus, another died of paralysis, and the result of her three marriages consisted of one child, who died of typhus.

Well, as the day wore on, a chronically pregnant lady, who never travels without either a wet-nurse, a goat, or a jackass, propounded puzzling problems on infantile alimentation. An old harpy who let lodgings, and the magnificent wife of a tradesman, equally took the change and the starch out of our friend by rudely declining to believe in the "assistant."

Once, assuming a cavalry swagger before a coroner's jury, he narrowly escaped a verdict of "wilful murder." Instead of gratefully thanking Providence that he was old enough and ugly enough to undertake any case, Lennox Jenkins gladly discovered a convenient bone in his leg when asked to officiate again. The general Practitioner works terribly hard to find, as in Berkshire, his harvest too frequently late.

I am, &c.,

CHUTNEY CURRIE, M.D.

COMMUNICATIONS have been received from—

Mr. LEIGH; Dr. RIDGE; Mr. PAYNE; Mr. BROCKLEHURST; Mr. FOWLER; A BRITON; Mr. JOHN TANNER; Dr. FAYRER; Professor KLEBS; Dr. RUTHERFORD; Miss WOOTTON; Mr. BROWN; AN OLD PUPIL OF JOHN ABERNETHY; Dr. F. R. HOGG; Messrs. CASSELL; Mr. BRUNTON; Mr. J. CHATTO; Mr. J. SPENCER WELLS; Dr. CAMERON; Dr. CHARLES MAYO; L.S.A.; Mr. BLACKMAN; Dr. HARTSEN; Dr. E. CASEY; Dr. BRAILEY; R. H. L.; Dr. GRIFFITHS; Mr. JOHN THOMAS; Dr. GRAY; Dr. WILTSHIRE; F.R.C.S.; Mr. HUGHES; Mr. W. HUNTER.

BOOKS RECEIVED—

Report of the Sanitary Condition of the Holborn District—Thorley's Farmers' Almanac—Report on the Sanitary Condition of the St. Giles District during the year 1870—Dunglison on the Public Medical Libraries of Philadelphia — Abrath on Small-pox — Le Démon Alcöol, par Dr. Despine.

PERIODICALS AND NEWSPAPERS RECEIVED—

O Correio Medico de Lisboa — Nature — Wiener Medicinische Zeitung — Gazette des Hôpitaux — L'Union Médicale — Chloralum Review — La Gazette Hebdomadaire — Pharmaceutical Journal — New Remedies, a Quarterly Retrospect of Therapeutics, etc.—La Tribune Médicale—Southampton Times—Hampstead and Highgate Express—Philadelphia Medical Times—Glasgow Herald—The Dark Blue, September—Medical Press and Circular—The Medical Free Press and Journal of Hygiene, September—Centralblatt für die Medicinischen Wissenschaften, Nos. 31 and 32—Berliner Klinische Wochenschrift, Nos. 31 and 32.

APPOINTMENTS FOR THE WEEK.

September 2. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

4. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

5. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

6. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

7. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; West London, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

8. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

MEDICAL SOCIETY OF LONDON, 8 p.m. Meeting of Council.

VITAL STATISTICS OF LONDON.

Week ending Saturday, August 26, 1871.

BIRTHS.

Births of Boys, 1071; Girls, 1032; Total, 2103.
Average of 10 corresponding weeks, 1861-70, 1963·9.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	863	819	1682
Average of the ten years 1861-70	680·3	650·3	1330·6
Average corrected to increased population	...	...	1464
Deaths of people above 90	...	...	...

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561189	6	6	7	...	5	1	3	1	79
North ...	751668	32	1	3	2	4	2	4	1	102
Central ...	333887	2	1	3	4	2	1	1	3	27
East	638928	15	5	5	...	5	...	1	1	105
South	966132	27	7	6	...	9	...	2	1	174
Total	3251804	82	20	24	6	25	4	11	7	487

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·825 in.
Mean temperature	63·0°
Highest point of thermometer	78·7°
Lowest point of thermometer	50·6°
Mean dew-point temperature	55·0°
General direction of wind	S.W.
Whole amount of rain in the week	0·09 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, August 26, 1871, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1871.*	Persons to an Acre. (1871.)	Births Registered during the week ending Aug. 26.	Deaths Registered during the week ending Aug. 26.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3263872	41·8	2103	1682	78·7	50·6	63·0	17·22	0·09	0·23
Portsmouth ...	113450	11·9	78	41	76·2	52·8	63·0	17·22	0·02	0·05
Norwich	80533	10·8	43	53	75·0	46·5	60·2	15·66	0·28	0·71
Bristol	183298	39·1	143	80	...	...	...	...	...	...
Wolverhampton ...	68476	20·2	46	29	72·3	41·7	58·4	14·66	0·47	1·19
Birmingham ...	344980	44·1	257	185	72·4	43·0	59·4	15·22	0·37	0·94
Leicester	95882	30·0	59	84	77·5	42·0	58·8	14·89	0·37	0·94
Nottingham ...	86929	43·6	49	51	75·6	40·9	59·1	15·05	0·28	0·71
Liverpool	493649	96·8	341	362	71·0	47·3	58·7	14·83	0·71	1·80
Manchester ...	356099	79·4	224	275	...	...	...	...	...	...
Salford	125422	34·3	111	104	71·5	40·4	56·6	13·66	1·12	2·84
Bradford	146987	22·3	94	93	70·1	46·0	58·7	14·83	0·56	1·42
Leeds	260657	12·1	138	209	71·0	44·0	58·9	14·94	0·45	1·14
Sheffield	241507	10·6	197	202	71·0	42·0	58·3	14·61	0·76	1·93
Hull	122266	34·3	96	85	72·0	40·0	58·0	14·44	0·37	0·94
Sunderland ...	98797	29·9	70	83	...	...	...	...	...	...
Newcastle-on-Tyne	128677	24·1	102	125	67·0	52·0	58·7	13·72	0·39	0·99
Edinburgh	201728	45·6	102	112	67·0	42·0	55·0	12·78	1·60	4·06
Glasgow	479227	94·7	342	279	64·3	42·6	55·1	12·83	2·49	6·32
Dublin (City, etc.)	310565	31·9	191	128	73·7	40·0	58·8	14·89	0·28	0·71
Total of 20 Towns in United Kingd'm	7204001	33·8	4786	4262	78·7	40·0	58·6	14·78	0·62	1·58

At the Royal Observatory, Greenwich, the mean reading of the barometer in the week was 29·83 in. The highest was 30·09 in. at the end of the week, and the lowest was 29·55 in. on Thursday afternoon.

* The figures in this column are the unrevised numbers enumerated in April last, raised to the middle of the year by adding 1-40th of the rate of increase which prevailed between 1861 and 1871. As the population of Dublin and its suburbs showed a decline between the Censuses of 1861 and 1871, the enumerated number in April last has been inserted above for that city, the population being assumed to be now stationary.

Continued from Fifth Page of Advertisements.

King's College, London.—Medical

DEPARTMENT.—The WINTER SESSION will be opened on MONDAY, OCTOBER 2nd, with an Introductory Address, at 4 p.m., by Professor Rutherford, M.D.

LECTURERS.

Anatomy—Prof. R. Partridge, F.R.S. Demonst.: J. Curnow & J. B. Perrin.
Physiology—Prof. W. Rutherford, M.D. Demonst.: D. Ferrier, M.A., M.D.
Chemistry—Prof. C. L. Bloxam, F.C.S. Demonst.: W. N. Hartley.
Medicine, Principles and Practice of—Prof. George Johnson, M.D.
Surgery, Principles and Practice of—Prof. John Wood, F.R.S.
Clinical Surgery—Prof. Sir William Fergusson, Bart., F.R.S.
Hygiene—Prof. W. A. Guy, M.B., F.R.S.
Botany—Prof. Robert Bentley, F.L.S.
Materia Medica and Therapeutics—Prof. A. B. Garrod, M.D., F.R.S.
Obstetric Medicine and the Diseases of Women and Children—Prof. W. O. Priestley, M.D.
Forensic Medicine—Prof. W. A. Guy, M.B., F.R.S.
Comparative Anatomy—Prof. T. Rymer Jones, F.R.S.
Pathological Anatomy—Prof. L. S. Beale, M.B., F.R.S.
Dental Surgery—Prof. Samuel Cartwright, F.R.C.S.
Ophthalmology—Prof. J. Soelberg Wells, M.D., M.R.C.S.
Practical Surgery—Prof. John Wood, F.R.S.
Psychological Medicine—Prof. Edgar Sheppard, M.D.
Dean of the Faculty—Prof. Bentley, F.L.S.

KING'S COLLEGE HOSPITAL.

CLINICAL LECTURES are given four times a week by the Physicians and Surgeons. Clinical Instruction is also given in Diseases of the Throat and in Skin Diseases.

Physicians—Dr. G. Johnson, Dr. L. S. Beale, Dr. A. B. Garrod, Dr. Guy, Dr. Duffin. Assistant-Physicians—Dr. Yeo, Dr. Kelly. Physician for Diseases of Women and Children—Dr. W. O. Priestley. Assistant Obstetric Physician—Dr. W. Playfair. Surgeons—Sir W. Fergusson, Bart.; John Wood, F.R.C.S.; H. Smith, F.R.C.S. Surgeon-Dentist—S. Cartwright, F.R.C.S. Ophthalmic Surgeon—J. Soelberg Wells, M.D. Assistant-Surgeon—H. Royes Bell, F.R.C.S. Pathological Registrar—C. Kelly, M.D. Sambrooke Registrars—E. B. Baxter, M.D.; Urban Pritchard, M.D. Vaccinator—W. Dunn, Esq.

An Ophthalmic Department and a Ward for Children are attached to the Hospital. The Physician's Assistant, Physician-Accoucheur's Assistant, and House-Surgeon, as also their Assistants, Clinical Clerks, and Dressers, are selected by examination from amongst the Students, without extra fees.

SCHOLARSHIPS, REGISTRARSHIPS, AND PRIZES.

WARNEFORD SCHOLARSHIPS.—Students entering the Medical Department of this College in October, 1871, will have the exclusive privilege of contending for two Scholarships of £25 each for three years. These Scholarships are given for proficiency in Divinity, Classics, Mathematics, History, and English. The subjects may be ascertained by applying to the Secretary.

Five Medical Scholarships are awarded at the close of each Winter Session for proficiency in Professional subjects—viz., one of £40 for two years; one of £30 for one year; and three of £20 for one year. A WARNEFORD SCHOLARSHIP of £25, for two years, is also annually awarded for proficiency in Divinity and Hospital Practice. SAMBROOKE REGISTRARSHIPS.—Two of £50, tenable for two years, are annually awarded to matriculated Students of this department. DANIELL SCHOLARSHIP.—One of £20, for two years, given for proficiency in Chemistry, is open to Students of the Medical Department. Endowed Prizes, of the value of £25, £15, £10, and £4 4s. each, and College Prizes of the value of £50, are annually awarded.

For further information, apply personally or by letter marked outside "Prospectus," to J. W. Cunningham, Esq., Secretary.

St. George's Hospital Medical School.

—The WINTER SESSION will commence on MONDAY, 2nd OCTOBER, with an Introductory Address by Dr. John Clarke, at 2 p.m., in the Hospital.

The system of clinical teaching has been arranged so as to afford every Student personal instruction in the wards from the Physicians and Surgeons themselves.

Special departments have been organised for practical instruction in Midwifery, Ophthalmic Practice, Orthopædic Surgery, Skin Diseases, Vaccination, and Dentistry. Lectures on Public Health are given by the Lecturer on Medicine.

Pathology (including Morbid Anatomy), Psychological Medicine, and Comparative Anatomy are taught in distinct courses of lectures.

Instruction is given in all the special modes of Medical and Surgical investigation.

The following paid offices are offered for competition annually—viz., Obstetric Assistant, Curator of the Museum, Demonstrator of Anatomy, Medical and Surgical Registrars.

The House-Physicians and House-Surgeons are selected by merit from among the Perpetual Pupils without payment, board and lodging in the Hospital being provided at the expense of the Governors.

Liverpool Royal Infirmary School of

MEDICINE.—The Introductory Address will be delivered on OCTOBER 2nd, at 3 p.m., by Dr. W. Carter.

HOSPITAL PRACTICE.—ROYAL INFIRMARY

Physicians—Dr. Vose, Dr. Turnbull, Dr. Waters.
Surgeons—Mr. Stubbs, Mr. Bickersteth, Mr. Hakes.
Assistant-Surgeon—Mr. Harrison.

Lectures on Clinical Medicine are delivered by the Physicians, and on Clinical Surgery by Mr. Bickersteth.

LECTURES.—WINTER SESSION.

Medicine—Dr. Cameron.
Surgery—Mr. Harrison.
Physiology—Dr. Waters.
Anatomy—Mr. W. Mitchell Banks.
Pathology—Dr. Davidson.
Chemistry—J. C. Brown, D.Sc. Lond.

DEMONSTRATIONS.

Practical Physiology—Dr. Caton.
Dissections—Dr. Glynn and Mr. E. A. Browne.

A Prospectus may be obtained from the Registrar, Mr. Harrison 51, Rodney-street, or School of Medicine, Dover-street, Liverpool.

University College, London.—The

SESSION of the FACULTY of MEDICINE will commence on MONDAY, OCTOBER 2nd, 1871. Introductory Lecture at 3 p.m.

LECTURES IN WINTER SESSION.

Medicine—Prof. J. Russell Reynolds, M.D., F.R.S.
Practical Physiology and Histology—Prof. Burdon-Sanderson, M.D., F.R.S.
Anatomy and Physiology—Prof. Sharpey, M.D., F.R.S.
Chemistry—Prof. Williamson, F.R.S.
Anatomy—Prof. G. V. Ellis.
Comparative Anatomy—Prof. Grant, M.D., F.R.S.
Surgery—Professor Marshall, F.R.S.
Practical Surgery—Mr. Berkeley Hill, M.B., F.R.C.S.; Mr. Christopher Heath, F.R.C.S.; Mr. Marcus Beck, M.S., M.B., F.R.C.S.
Dental Surgery—Mr. Ibbetson, F.R.C.S.

LECTURES IN SUMMER SESSION.

Botany—Prof. Oliver, F.R.S., F.L.S.
Midwifery—Prof. Grailly Hewitt, M.D.
Medical Jurisprudence—Prof. Maudsley, M.D.
Practical Chemistry—Prof. Williamson, F.R.S.
Mental Diseases—Lecturer, W. H. O. Sankey, M.D.
Hygiene and Public Health—Prof. Corfield, M.A., M.B.
Materia Medica and Therapeutics—Prof. Ringer, M.D.
Palæozoology—Prof. Grant, M.D., F.R.S.
Operative Surgery—Mr. Christopher Heath, F.R.C.S.
Pathological Anatomy—Prof. H. Charlton Bastian, M.D., F.R.S.
Ophthalmic Medicine and Surgery—Prof. T. W. Jones, F.R.S.
Analytical Chemistry—Professor Williamson, throughout the Session.

UNIVERSITY COLLEGE HOSPITAL.

Physicians—Sir W. Jenner, Bart., M.D., F.R.S.; Dr. Reynolds, F.R.S.; Dr. Wilson Fox, Dr. Ringer, Dr. H. Charlton Bastian, F.R.S.
Obstetric Physician—Dr. Grailly Hewitt.
Physician to the Skin Infirmary—Dr. Tilbury Fox.
Assistant-Physician—Dr. F. T. Roberts, B.Sc.
Surgeons—Mr. Erichsen, Mr. Marshall, F.R.S., Sir Henry Thompson, Mr. Berkeley Hill, Mr. Christopher Heath.
Ophthalmic Surgeon—Mr. Wharton Jones, F.R.S.
Dental Surgery—Mr. Ibbetson.

CLINICAL INSTRUCTION.

Medical Clinical Lectures by Prof. Sir Wm. Jenner, Prof. Reynolds, and Prof. Grailly Hewitt; also by Dr. Wilson Fox, Holme Professor of Clinical Medicine, whose special duty it is to train the Pupils in the practical study of disease. Dr. Roberts, the Assistant Teacher of Clinical Medicine, also gives special instruction in the methods of physical diagnosis and of clinical observation.

Surgical Clinical Lectures by Mr. Erichsen, Holme Professor of Clinical Surgery, Prof. Marshall, and Sir Henry Thompson.

Lectures on Ophthalmic Cases by Mr. Wharton Jones.

Clinical Lectures on Diseases of the Skin by Dr. Tilbury Fox.

SCHOLARSHIPS, EXHIBITIONS, AND PRIZES.

Three Entrance Exhibitions, of the respective values of £30, £20, and £10 per annum, tenable for two years.

An Atkinson Morley Scholarship for the promotion of the study of Surgery, £45 a year, tenable for three years.

Sharpey Physiological Scholarship, about £95 a year, tenable for three years.

Filliter Exhibition for proficiency in Pathological Anatomy, £30.

Liston Gold Medal for Clinical Surgery.

Dr. Fellowes's Medals for Clinical Medicine, two Gold and two Silver.

Alexander Bruce Gold Medal for Pathology and Surgery.

Cluff Memorial Prize, awarded every other year for proficiency in Anatomy, Physiology, and Chemistry.

The next Examination for the Entrance Exhibitions will be held on the 28th and 29th of September.

Prospectuses and the regulations concerning the Exhibitions and Scholarships may be obtained on application, either personally or by letter, at the Office of the College.

SYDNEY RINGER, M.D., Dean of the Faculty.
JOHN ROBSON, B.A., Secretary to the Council.

Sheffield School of Medicine.—

SESSIONS of 1871-2.—The WINTER SESSION will commence on OCTOBER 1. The Introductory Lecture will be delivered by A. Allen, Esq., F.C.S., and the Prizes distributed in the Anatomical Theatre at 4 p.m.

LIST OF LECTURES.

Anatomy, Descriptive and Surgical—Mr. Skinner and Mr. A. Jackson.
Demonstrations of Anatomy—Mr. E. Skinner, Mr. Clark, Mr. Pearce.
Physiology—Mr. Thos. Leeds and Mr. S. Morton.
Principles and Practice of Medicine—Dr. Frank-Smith.
Principles and Practice of Surgery—Mr. W. F. Favell and Mr. Parker, F.R.C.S.
Chemistry—Mr. Allen.
Dental Mechanics—Mr. G. Mosely.
Clinical Medicine—Dr. Bartoloué, Dr. Law, and Dr. Frank-Smith.
Clinical Surgery—Mr. Barber, Mr. W. Favell, and Mr. Parker, F.R.C.S.

Demonstrators on Practical Surgery and Practical Physiology will be appointed on August 28th.

SUMMER SESSION, commencing MAY 1st, 1872.

Midwifery and Diseases of Women—Dr. Keeling and Dr. Hime.
Materia Medica and Therapeutics—Dr. Young.
Medical Jurisprudence and Toxicology—Mr. Baker and Mr. Harrison.
Botany—Mr. Birks.
Practical Chemistry—Mr. Allen.
Dental Surgery—Dr. Merrywcather.
Demonstrations of Pathology and Microscopy—Mr. Hallam (at the Infirmary).
Demonstrations of Operative Surgery—Mr. Favell and Mr. Parker, F.R.C.S.

Perpetual Fee for attendance on all the Lectures required by the Royal College of Surgeons and the Apothecaries' Hall, £40.

Prospectuses and all further information may be obtained upon application to the Hon. Secretaries,

Dr. W. FRANK-SMITH, Norfolk-street.
Mr. A. JACKSON, St. James's-row, Sheffield.

RULES AND REGULATIONS

OF THE

EXAMINING MEDICAL BODIES IN ENGLAND.

SESSION 1871—2.

EXTRACTS FROM THE REGULATIONS OF THE GENERAL MEDICAL COUNCIL ON THE SUBJECTS OF REGISTRATION OF MEDICAL STUDENTS AND PRELIMINARY EXAMINATIONS.

REGISTRATION OF MEDICAL STUDENTS.

THE following Regulations have been adopted by the General Medical Council, in reference to the Registration of Students of Medicine :—

1. Every Medical Student shall be registered in the manner prescribed by the General Medical Council.

2. No Medical Student shall be registered until he has passed a Preliminary Examination, as required by the General Medical Council.

3. The commencement of the course of Professional study recognised by any of the Qualifying Bodies, shall not be reckoned as dating earlier than fifteen days before the date of Registration.

4. The Registration of Medical Students shall be placed under the charge of the Branch Registrars.

5. Each of the Branch Registrars shall keep a Register of Medical Students according to the subjoined form :—

Form for the Registration of Medical Students.

Date of Registration.	Name.	Preliminary Examination and Date.	Place of Medical Study.

6. Every person desirous of being registered as a Medical Student, shall apply to the Branch Registrar of the division of the United Kingdom in which he is residing, according to the annexed form, which may be had on application to the several Qualifying Bodies, Medical Schools, and Hospitals; and shall produce or forward to the Branch Registrar a Certificate of his having passed a Preliminary Examination, as required by the General Medical Council, and a statement of his place of Medical study.

7. The Branch Registrar shall enter the applicant's name and other particulars in the Students' Register, and shall give him a Certificate of such Registration.

8. Each of the Branch Registrars shall supply to the several Qualifying Bodies, Medical Schools, and Hospitals, in that part of the United Kingdom of which he is Registrar, a sufficient number of blank forms of application for the Registration of Medical Students.

9. The several Branch Councils shall have power to admit special exceptions to the foregoing Regulations as to Registration, for reasons which shall appear to them satisfactory.

10. A copy of the Register of Medical Students, prepared by each of the Branch Registrars, shall be transmitted, on or before December 31 in each year, to the Registrar of the General Council, who shall, as soon as possible thereafter, prepare and print, under the direction of the Executive Committee, an Alphabetical List of all Students registered in the preceding year, and supply copies of such authorised List to each of the Bodies enumerated in Schedule (A) to the Medical Acts, and through the Branch Registrars to the several Medical Schools and Hospitals.

11. The several Qualifying Bodies are recommended not to admit, after October, 1871, to the Final Examination for a Qualification under the Medical Acts, any Candidate (not exempted from Registration) whose name has not been entered in the Medical Students' Register at least four years previously.

In the case of Candidates from other than Schools of the United Kingdom, the Branch Councils shall have power to admit exceptions to this recommendation.

PRELIMINARY EXAMINATIONS IN ARTS RECOGNISED BY THE GENERAL MEDICAL COUNCIL.

"That Testimonials of Proficiency, granted by the National Educational Bodies according to the subjoined List, may be accepted, the Council reserving the right to add to, or take from the List" (A Degree in Arts of any University of the United Kingdom, or of the Colonies, or of such other Universities as may be specially recognised from time to time by the Medical Council, is considered a sufficient Testimonial of Proficiency).

LIST OF EXAMINING BODIES WHOSE EXAMINATIONS FULFIL THE CONDITIONS OF THE MEDICAL COUNCIL, AS REGARDS PRELIMINARY EDUCATION.

I. Universities of the United Kingdom.—Oxford: Examination for a Degree in Arts; Responsions; Moderations; Local Examinations (Senior), Certificate to include Latin and Mathematics. Cambridge: Examination for a Degree in Arts; Previous Examination; Local Examinations (Senior), Certificate to include Latin and Mathematics. Durham: Examination for a Degree in Arts; Examination for Students in their second and first years; Registration Examination for Medical Students; Local Examinations (Senior), Certificate to include Latin and Mathematics. London: Examination for a Degree in Arts; Matriculation Examination. Aberdeen, Edinburgh, Glasgow, St. Andrews: Examination for a Degree in Arts; Preliminary Examination for Graduation in Medicine or Surgery. Edinburgh: Examination of (Senior) Candidates for Honorary Certificates under the Local Examinations of the University of Edinburgh. Dublin: Examination for a Degree in Arts; Entrance Examination. Queen's University (Ireland): Examination for a Degree in Arts; Entrance Examination; Examination for the Diploma of Licentiate in Arts; Previous Examination for B.A. Degree.

II.—Other Bodies named in Schedule (A) to the Medical Act.—Royal College of Surgeons of England: Examination conducted under the superintendence of the College of Surgeons, by the Board of Examiners of the Royal College of Preceptors. The Society of Apothecaries of London: Examination in Arts. Royal College of Physicians, Edinburgh, and Royal College of Surgeons, Edinburgh: Preliminary Examination in General Education, conducted by a Board appointed by these two Colleges combined, Faculty of Physicians and Surgeons of Glasgow: Preliminary Examination in General Literature. Royal College of Surgeons in Ireland: Preliminary Examination, Certificate to include Mathematics. Apothecaries' Hall of Ireland: Preliminary Examination in General Education.

III.—Examining Bodies in the United Kingdom, not included in Schedule (A) to the Medical Act.—Royal College of Preceptors: Examination for a First Class Certificate.

IV.—Colonial and Foreign Universities and Colleges.—Universities of Calcutta, Madras, Bombay: Entrance Examination, Certificate to include Latin. M'Gill College, Montreal: Matriculation Examination. University of Toronto, King's College, Toronto, Queen's College, Kingston, Victoria College, Upper Canada: Matriculation Examination. King's College, Nova Scotia: Matriculation Examination, Responsions. University of Fredrickton, New Brunswick: Matriculation Examination. University of Melbourne: Matriculation Examination, Certificate to include all the subjects required by the General Medical Council. University of Sydney: Matriculation Examination. Codrington College, Barbadoes: 1. English Certificate for Students of two years' standing, specifying the subjects of Examination; 2. Latin Certificate, or "Testamur." Tasmanian Council of Education: Examination for the Degree of Associate of Arts, Certificate to include Latin and Mathematics. Christ's College, Canterbury, New Zealand: Voluntary Examinations, Certificate to include all the subjects required by the General Medical Council. The Examiners for Commissions in the Military and Naval Services of the United Kingdom: Certificate to include all the subjects required by the General Medical Council. Cape of Good Hope: Third Class Certificate in Literature and Science, granted by the Board of Public Examiners.

FORM OF APPLICATION FOR REGISTRATION AS A MEDICAL STUDENT.

I hereby apply to be Registered as a Student in Medicine, in conformity with the Regulations of the General Council of Medical Education and

Registration of the United Kingdom, for which purpose I submit the following particulars:—

Name of Applicant. (To be written in words at length.)		Preliminary Examination.	Date of Preliminary Examination.	Place of Medical Study.
Surname.	Christian Name.			

Applicant's Signature,_____

Address,_____

Date of Application,_____

To the Registrar of the
Branch Council for_____

N.B.—The above Form of Application, duly and legibly filled up, must be forwarded to the Registrar, post free, and be accompanied by a Certificate of the Applicant's having passed a Preliminary Examination as required by the General Medical Council, and a statement of his place of Medical Study. The Certificate of Examination must testify that the Student has been examined in—1. English Language, including Grammar and Composition; 2. Arithmetic, including Vulgar and Decimal Fractions; Algebra including Simple Equations; 3. Geometry—First two books of Euclid; 4. Latin, including Translation and Grammar. And in one of the following optional subjects: Greek; French; German; Natural Philosophy, including Mechanics, Hydrostatics, and Pneumatics.

UNIVERSITY OF OXFORD.

DEGREES IN MEDICINE.

Every Student in Medicine is required to pass all the Examinations for the degree of B.A., and to reckon the time of his Medical study from the Final Examination for Arts.

1. Candidates for the Degree of B.M. are required to pass two Examinations, each of which is held yearly in full Michaelmas Term, usually at the end of November, due notice being given, in the usual manner, by the Regius Professer of Medicine. Each Examination is conducted by the Regius Professor of Medicine and three persons who have been admitted to Regency either as Masters of Arts or as Doctors, and who are nominated yearly by the Vice-Chancellor, subject to the approval of Convocation. Each Examination is conducted partly in writing, partly *vivâ voce*, and part of each is practical. The subjects of the First Examination are Human Anatomy and Physiology, Comparative Anatomy and Physiology to a certain extent, and those parts of Mechanical Philosophy, Botany, and Chemistry which illustrate Medicine. The subjects of the Second Examination are the Theory and Practice of Medicine (including diseases of women and children), the Materia, Medica, Therapeutics, Pathology, the Principles of Surgery and Midwifery, Medical Jurisprudence, and General Hygiene. Every Candidate at this Second Examination is to be examined in two of the ancient authors, Hippocrates, Aretæus, Galen, and Celsus, or in one of those four, and in some modern author approved by the Regius Professor.(a) His knowledge of disease also is tested at the bedside, and he is required to make observations with the microscope or any other aids to diagnosis with respect to patients submitted to him.

Before a Candidate is admitted to the first of these two Examinations, he must have spent two years in Professional studies after having passed the Examinations required for the Degree of B.A., unless he was placed in the First or Second Class in the School of Natural Science, in which case, if he received from the Public Examiners a special Certificate of his attainments in Mechanical Philosophy, Chemistry, or Botany, he may be admitted to this Examination at once, and need not then be examined again in any science specified in such Certificate. Instruction in Natural Science is carried on at the University Museum, where there is practical instruction in Physics, Chemistry, and Anatomy and Physiology, together with courses of lectures by the Professors in those and other subjects.(b) Large collections illustrate the several subjects; there is a pathological series, including the collection of Schröder van der Kolk, in the Medical Department, where there is also a Medical laboratory. The Radcliffe Library, containing nearly 20,000 scientific volumes, is open daily to all Students from ten till four, and on certain evenings during Term. Before a Candidate is admitted to the Second Examination, he must have completed sixteen Terms from the date of the same *Testamur* and two years from the date of his *Testamur* in the First Medical Examination, and must deliver to the Regius Professor satisfactory Certificates of his attendance at some first-class Hospital. Everyone intending to be a Candidate at either Examination is required to give the Professor notice of his intention a fortnight at least before the week in which the Examination is to be held.

No one from another University can be incorporated as a Graduate in Medicine without passing these two Examinations.

2. A Bachelor of Medicine wishing to proceed to the Degree of Dector is required to read publicly within the precinct of the Schools, in the presence of the Regius Professor, a Dissertation composed by himself on some Medical subject approved by the Professor, and to deliver to him a copy of it.

(a) Such as Morgagni, Sydenham, Boerhaave.

(b) Regius Professor of Medicine, H. W. Acland, M.D., LL.D., F.R.S.; Professor of Geometry, H. J. S. Smith, M.A., F.R.S.; Professor of Natural Philosophy, Rev. B. Price, M.A., F.R.S.; Professor of Experimental Physics, R. B. Clifton, M.A., F.R.S.; Professor of Chemistry, Sir B. C. Brodie, Bart., M.A., F.R.S.; Linacre Professor of Physiology, G. Rolleston, M.D., F.R.S.; Professor of Zoology, J. O. Westwood, M.A., F.L.S.; Professor of Geology, J. Phillips, D.C.L., F.R.S.; Professor of Mineralogy, N. S. Maskelyne, M.A., F.R.S.; Lea's Reader in Anatomy, J. B. Thompson, B.A.; Demonstrator in Anatomy, Charles Robertson, Esq.; Demonstrator of Chemistry, T. H. G. Wyndham, M.A.; Professor of Botany at the Physic Gardens, M. Lawson, M.A., Magdalen College; Lecturer in Natural Science at Magdalen College, E. Chapman, M.A.; Lea's Reader in Chemistry at Christ Church, A. G. V. Harcourt, M.A., F.R.S.; Lea's Reader in Physics, A. W. Reinold, M.A.; Lecturer in Natural Science at Wadham College, R. Abbay, M.A.

UNIVERSITY OF CAMBRIDGE.

REGULATIONS FOR DEGREES IN MEDICINE AND SURGERY.

Degree of Bachelor of Medicine.—Before a Student can become a Bachelor of Medicine he must have resided nine Terms (three academical years).

Five years of Medical study are required, of which time six Terms (two academical years) shall be spent in the University after the Student has passed the Previous Examination. In the case of those who have graduated with honours as Bachelor of Arts, four years of Medical study are deemed sufficient, and four Terms only of Medical study in the University are required.

The Previous Examination may be passed in the Lent Term (at the latter end of March) by those who declare themselves as Medical Students, and have commenced residence in the University in the previous October. In addition to the Previous Examination, the Student is required to pass an Examination in Algebra at the same time or in some subsequent Term.

There are three Examinations for M.B.

The First Examination is in—1. Mechanics and Hydrostatics; 2. Chemistry, with Heat and Electricity; 3. Botany. Before presenting himself for it the Student must have attended Lectures on Chemistry, including manipulations, and Botany. (Students who have obtained honours in any Tripos or passed the general Examination for B.A. are not required to be examined in Mechanics and Hydrostatics; and those who have passed the special Examination in Botany for B.A. are not required to be again examined in that subject.)

The Second Examination is in—1. Elements of Comparative Anatomy; 2. Human Anatomy and Physiology; 3. Pharmacology. The Student must have completed two years of Medical study, the time of Medical study required to be spent in the University being included in these two years, and must also produce Certificates of attendance on Lectures on the Elements of Comparative Anatomy, Human Anatomy and Physiology, Materia Medica and Pharmacy, and Pathology; one year's Hospital Practice, and one season's Dissections.

Students who have obtained honours in the Natural Sciences Tripos, and have passed with credit the Examination in Chemistry, Botany, or Comparative Anatomy, are not required to be again examined in those subjects.

The Third Examination is in—1. Pathology and Practice of Physic (two papers); 2. Clinical Medicine (in the wards of the Hospital); 3. Medical Jurisprudence. The Candidate must have completed the course of Medical study, and must produce Certificates of attendance on one Course of Lectures on each of the following subjects:—Principles and Practice of Physic, Clinical Medicine, Clinical Surgery, Medical Jurisprudence, and Midwifery, and of having attended Hospital Practice during three years.

After the Third Examination an Act has to be kept, which consists in reading an original thesis, followed by a *viva voce* Examination on the subject of the thesis, as well as on other subjects of the Faculty.

The *Degree of Doctor of Medicine* may be taken three years after M.B. An Act has to be kept with *viva voce* Examination, and an essay has to be written extempore. A Master of Arts of four years' standing can proceed direct to M.D., provided he produces the same Certificates and passes the same Examinations as for M.B.

Degree of Master in Surgery.—The Candidate must have passed all the Examinations for the Degree of M.B., and must produce Certificates of having attended a second Course of Lectures on Human Anatomy, one Course of Lectures on the Principles and Practice of Surgery, one year's Clinical Surgical Lectures, ten cases of Midwifery, a second season of Dissections, three years the Surgical Practice of a recognised Hospital, and of having been House-Surgeon or Dresser at such Hospital for six months. The subjects of the Examination are—1. Surgical Anatomy; 2. Pathology and the Principles and Practice of Surgery; 3. Clinical Surgery; and 4. Midwifery.

All the Examinations are partly in writing, partly *viva voce*, and take place in the Michaelmas and Easter Terms, an interval of two days being allowed to intervene between the First and Second Examinations for M.B.

Attendance at the Hospital and Lectures in Cambridge is recognised by the Universities of Cambridge and London, and (for one year) by the College of Surgeons and the Society of Apothecaries.

UNIVERSITY OF LONDON.

BACHELOR OF MEDICINE.

Every Candidate for the Degree of Bachelor of Medicine shall be required:—

1. To have passed the Matriculation Examination, or to have taken a Degree in Arts in either of the Universities of Sydney, Melbourne, or Calcutta (provided in the last case that Latin has been one of the subjects in which he has passed).

2. To have passed the Preliminary Scientific Examination.

3. To have been engaged in his Professional Studies during four years subsequently to Matriculation or Graduation in Arts, at one or more of the Medical Institutions or Schools recognised by this University, one year, at least, of the four to have been spent in one or more of the recognised Institutions or Schools in the United Kingdom.

4. To pass Two Examinations in Medicine.

PRELIMINARY SCIENTIFIC (M.B.) EXAMINATION.(a)

The Preliminary Scientific Examination shall take place once in each year, and shall commence on the third Monday in July.

[Candidates for the Degree of M.B. are strongly recommended by the Senate to pass the Preliminary Scientific Examination before commencing their regular Medical Studies; and to devote a Preliminary Year to preparation for it, according to the following programme:—*Winter Session:* Mechanical and Natural Philosophy; Chemistry (especially Inorganic); Zoology. *Summer Session:* Practical Chemistry (Inorganic); Botany.]

No Candidate shall be admitted to this Examination until he shall have completed his 17th year, and shall have either passed the Matriculation Examination or taken a Degree in Arts in either of the Universities of Sydney, Melbourne, or Calcutta (provided, in the last case, that Latin has been one of the subjects in which he has passed); nor unless he have given notice of his intention to the Registrar at least *fourteen days* before the commencement of the Examination.

The Fee for this Examination shall be £5.

Candidates shall be examined in the following subjects of the First B.Sc. Examination(b):—Mechanical and Natural Philosophy, Inorganic Chemistry, Botany and Vegetable Physiology, Zoology.

(a) Candidates who Matriculated previously to January, 1861, will not be required to pass the Preliminary Scientific (M.B.) Examination in any other subjects than Chemistry and Botany; and they will be allowed to pass the Preliminary Scientific Examination and the First M.B. Examination in the same year, if they so prefer.

(b) Candidates who shall pass in all the subjects of the Preliminary Scientific (M.B.) Examination, and also *at the same time* in the Mathematics of the First B.Sc. Examination, shall be considered as having passed both the Preliminary Scientific Examination, and also the First B.Sc. Examination, without being required to pay an additional Fee; and Candidates who shall pass in all the subjects of the Preliminary Scientific (M.B.) Examination, and who shall have *previously* passed the First B.A. Examination shall be admissible to the Second B.Sc. Examination.

EXAMINATION FOR HONOURS.

Any Candidate who has passed the Preliminary Scientific (M.B.) Examination in all its subjects may be examined at the Honours Examination next following the Preliminary Scientific (M.B.) Examination at which he has passed, in (1) Experimental Physics,(c) (2) Chemistry, (3) Botany, and (4) Zoology; unless he have previously obtained an Exhibition in either of these subjects at the First B.Sc. Examination, in which case he shall not be admissible to the Examination for Honours in that subject.

If in the opinion of the Examiners any Candidate of not more than 22 years of age at the commencement of the Pass Examination, who shall have passed either the First B.Sc. or the Preliminary Scientific (M.B.) Examination, shall possess sufficient merit, the Candidate who shall distinguish himself the most in Experimental Physics, the Candidate who shall have distinguished himself the most in Chemistry, the Candidate who shall distinguish himself the most in Botany, and the Candidate who shall distinguish himself the most in Zoology, shall each receive an Exhibition of £40 per annum for the next two years, payable in quarterly instalments, provided that on receiving each instalment he shall declare his intention of presenting himself either at the Second B.Sc. Examination within two Academical Years(d) from the time of his passing the First B.Sc. Examination, or at the First M.B. Examination within three Academical Years from the time of his passing the Preliminary Scientific (M.B) Examination, as the case may be.

Under the same circumstances the First and Second Candidates for Honours in Experimental Physics shall each receive a Neil Arnott Bronze Medal.

Every Candidate for the Degree of D.Sc. shall be examined in some one of the following branches of knowledge, to be selected by himself; and no Candidate shall be approved by the Examiners unless he have shown a thorough practical knowledge(e) of the Principal Subject, and a general acquaintance with the Subsidiary Subject or Subjects, specified as belonging to the Branch so selected.

FIRST M.B. EXAMINATION.

The First M.B. Examination shall take place once in each year, and shall commence on the last Monday in July.

No Candidate shall be admitted to this Examination unless he have produced Certificates to the following effect:—1. Of having completed his 19th year. 2. Of having passed the Preliminary Scientific Examination at least one year previously.(f) 3. Of having, subsequently to having passed the Matriculation Examination, or taken a Degree in Arts in one of the before-named Universities, been a Student during two years at one or more of the Medical Institutions or Schools recognised by this University; and of having attended a Course of Lectures on each of three of the subjects in the following list:—Descriptive and Surgical Anatomy, General Anatomy and Physiology, Comparative Anatomy, Pathological Anatomy, Materia Medica and Pharmacy, General Pathology, General Therapeutics, Forensic Medicine, Hygiene, Obstetric Medicine and Diseases peculiar to Women and Infants, Surgery, Medicine. 4. Of having, subsequently to having passed the Matriculation Examination, or taken a Degree in Arts, Dissected during two Winter Sessions. 5. Of having, subsequently to having passed the Matriculation Examination or taken a Degree in Arts, attended a Course of Practical Che-

(c) This Exhibition having been provided by the liberal endowment of Dr. Arnott, will be entitled "The Neil Arnott Exhibition."

(d) By the term "Academical Year" is ordinarily meant the period intervening between any Examination and an Examination of a higher grade in the following year, which period may be either *more* or *less* than a Calendar Year. Thus the interval between the *First* Examinations in Arts, Science, and Medicine, and the *Second* Examinations of the next year in those Faculties respectively, is about sixteen months; whilst the interval between the Second B.A. Examination and the M.A. Examination of the next year, or between the Second B.Sc. Examination and the D.Sc. Examination of the next year, is less than eight months. Nevertheless, each of these intervals is counted as an "Academical Year." Candidates who had attained the age of 21 years before January 1, 1860, are admissible to the successive Examinations for Degrees in Science without the intervals between them prescribed by the Regulations. Candidates who have been admitted to the First B.Sc. Examination within six months after passing the Matriculation Examination will be required to give evidence of having completed their 18th year.

(e) The Senate desire to make it understood that the Candidate for the Degree of D.Sc. will be expected to be so fully conversant with the Principal Subject he may select, as to be able to go through any examinatioual test (whether theoretical or practical) of his acquirements in it that can be fairly applied.

(f) Candidates who Matriculated previously to January, 1861, will not be required to pass the Preliminary Scientific Examination in any other subjects than Chemistry and Botany; and they will be allowed to pass the Preliminary Scientific Examination and the First M.B. Examination in the same year, if they so prefer.

mistry, comprehending Practical Exercises in conducting the more important processes of General and Pharmaceutical Chemistry; in applying Tests for discovering the Adulteration of articles of the Materia Medica, and the presence and nature of Poisons; and in the Examination of Mineral Waters, Animal Secretions, Urinary Deposits, Calculi, etc. 6. Of having attended to Practical Pharmacy, and of having acquired a practical knowledge of the Preparation of Medicines.

These Certificates shall be transmitted to the Registrar at least *fourteen days* before the commencement of the Examination.

The fee for this Examination shall be £5.

Candidates shall be Examined in the following subjects:—Anatomy, Physiology,(g) Materia Medica and Pharmaceutical Chemistry, Organic Chemistry.

The Examinations are by printed papers and *viva voce*.

EXAMINATION FOR HONOURS.

Any Candidate who has been placed in the First Division at the First M.B. Examination may be examined at the Honours Examination next following the First M.B. Examination at which he has passed, for Honours in (1) Anatomy, (2) Physiology, Histology, and Comparative Anatomy, and (3) Materia Medica and Pharmaceutical Chemistry, and Organic Chemistry. If in the opinion of the Examiners sufficient merit be evinced, the Candidate who shall distinguish himself the most in Anatomy, the Candidate who shall distinguish himself the most in Physiology, Histology, and Comparative Anatomy, and the Candidate who shall distinguish himself the most in Materia Medica, Pharmaceutical Chemistry, and Organic Chemistry, shall each receive an Exhibition of £40 per annum for the next Two Years, payable in quarterly instalments; provided that on receiving each instalment he shall declare his intention of presenting himself at the Second M.B. Examination within Three Academical Years (h) from the time of his passing the First M.B. Examination. Under the same circumstances, the First and Second Candidates in each of the preceding subjects shall each receive a Gold Medal of the value of £5.

SECOND M.B. EXAMINATION.(i)

The Second M.B. Examination shall take place once in each year, and shall commence on the first Monday in November. No Candidate shall be admitted to this Examination within Two Academical Years (k) of the time of his passing the First Examination, nor unless he have produced Certificates to the following effect:—1. Of having passed the First M.B. Examination. 2. Of having, subsequently to having passed the First M.B. Examination, attended a Course of Lectures on each of two of the subjects comprehended in the list previously given,(l) and for which the Candidate had not presented Certificates at the First M.B. Examination. 3. Of having conducted at least Twenty Labours. Certificates on this subject will be received from any legally qualified Practitioner in Medicine. 4. Of having attended the Surgical Practice of a recognised Hospital or Hospitals during two years, with Clinical Instruction and Lectures on Clinical Surgery. 5. Of having attended the Medical Practice of a recognised Hospital or Hospitals during two years, with Clinical Instruction and Lectures on Clinical Medicine. N.B.—The Student's attendance on the Surgical and on the Medical Hospital Practice specified in Regulations 4 and 5 may commence at any date after his passing the Preliminary Scientific Examination, and may be comprised either within the same year or within different years; provided that in every case his attendance on Surgical and Medical Hospital Practice be continued for at least eighteen months subsequently to his passing the First M.B. Examination. Attendance during three months in the Wards of a Lunatic Asylum recognised by the University, with Clinical Instruction, may be substituted for a like period of Attendance on Medical Hospital Practice.(m) 6. Of having, subsequently to the completion of his attendance on Surgical and Medical Hospital Practice, attended to Practical Medicine, Surgery, or Obstetric Medicine, with special charge of patients, in a Hospital, Infirmary, Dispensary, or Parochial Union, during six months. 7. Of having acquired Proficiency in Vaccination. Certificates on this subject will be received only from the authorised Vaccinators appointed by the Privy Council. The Candidate shall also produce a Certificate of Moral Character from a Teacher in the last School or Institution at which he has studied, as far as the Teacher's opportunity of knowledge has extended. These Certificates shall be transmitted to the Registrar at least *fourteen days* before the Examination begins.

The fee for this Examination shall be £5.

Candidates shall be examined in the following subjects:—General Pathology, General Therapeutics, and Hygiene; Surgery; Medicine; Obstetric Medicine; Forensic Medicine. The Examinations shall include questions in Surgical and Medical Anatomy, Pathological Anatomy, and Pathological Chemistry. N.B.—Candidates will be expected to write Prescriptions in Latin, without abbreviations.

The Senate desire it to be understood that Bachelors of Medicine of the University of London have no right, as such, to assume the title of Doctor of Medicine.

EXAMINATION FOR HONOURS.

Any Candidate who has been placed in the First Division at the Second M.B. Examination may be Examined for Honours in (1) Medicine, (2) Obstetric Medicine, and (3) Forensic Medicine.

If in the opinion of the Examiners sufficient merit be evinced, the Candidate who shall distinguish himself the most in Medicine shall receive £50 per annum for the next two years, with the style of University Scholar in Medicine.

Under the same circumstances, the Candidate who shall distinguish himself the most in Obstetric Medicine shall receive £30 per annum for the next two years, with the style of University Scholar in Obstetric Medicine.

Under the same circumstances, the Candidate who shall distinguish himself the most in Forensic Medicine shall receive £30 per annum for the next two years, with the style of University Scholar in Forensic Medicine.

Under the same circumstances, the First and Second Candidates in each of the preceding subjects shall each receive a Gold Medal of the value of £5.

BACHELOR OF SURGERY.

The Examination for the Degree of Bachelor of Surgery shall take place once in each year, and shall commence on the Tuesday following the fourth Monday in November.

No Candidate shall be admitted to this Examination unless he have produced Certificates to the following effect:—1. Of having passed the Second Examination for the Degree of Bachelor of Medicine in this University. 2. Of having attended a Course of Instruction in Operative Surgery, and of having operated on the Dead Subject.

These Certificates shall be transmitted to the Registrar at least *fourteen days* before the Examination begins.

The fee for this Examination shall be £5.

The Examinations comprise:—Surgical Anatomy and Surgical Operations, by printed papers; Examination and Report on Cases of Surgical Patients; Performance of Surgical Operations upon the Dead Subject; Application of Surgical Apparatus; *vivâ voce* Interrogation.

EXAMINATION FOR HONOURS.

Any Candidate who has passed the B.S. Examination may be examined for Honours in Surgery.

If in the opinion of the Examiners sufficient merit be evinced, the Candidate who shall distinguish himself the most shall receive £50 per annum for the next two years, with the style of University Scholar in Surgery.

Under the same circumstances, the First and Second Candidates shall each receive a Gold Medal of the value of £5.

MASTER IN SURGERY.

The Examination for the Degree of Master in Surgery shall take place once in each year, and shall commence on the fourth Monday in November.

No Candidate shall be admitted to this Examination unless he have produced Certificates to the following effect:—1. Of having taken the Degree of Bachelor of Surgery(n) in this

(g) Any Candidate shall be allowed, if he so prefer, to postpone his Examination in Physiology from the First M.B. Examination at which he presents himself for Examination in the remaining subjects until the First M.B. Examination in the next or any subsequent year; but such Candidate shall not be admitted to compete for Honours on either occasion; and he shall not be admitted as a Candidate at the Second M.B. Examination until after the lapse of at least twelve months from the time of his passing the Examination in Physiology.

(h) *See* Note (d).

(i) Any Candidate for the Second M.B. Examination who has passed the First M.B. Examination under the former Regulations, will be required to have also passed the Examination in Physiology at some previous First M.B. Examination carried on under the present Regulations; at which Examination he shall not be allowed to compete for Honours.

(k) *See* Note (d).

(l) *See* First M.B. Examination, Clause 3.

(m) The Senate regard it as highly desirable that Candidates for the Degree of M.B. should practically acquaint themselves with the different forms of Insanity by attendance in a Lunatic Asylum.

(n) Candidates who have obtained the Degree of Bachelor of Medicine previously to 1866 will be admitted to the Examination for the Degree of Master in Surgery without having taken the Degree of Bachelor of Surgery; and in the case of such Candidates, the attendance on Surgical Practice required by Regulation 2 may commence from the date of the M.B. Degree.

University. 2. Of having attended, subsequently to having taken the degree of Bachelor of Surgery in this University—*a*. To Clinical or Practical Surgery during two years in an Hospital or Medical Institution recognised by this University; *b*. Or to Clinical or Practical Surgery during one year in an Hospital or Medical Institution recognised by this University, and of having been engaged during three years in the Practice of his Profession; *c*. Or of having been engaged during five years in the Practice of his Profession, either before or after taking the Degree of Bachelor of Surgery in this University. One year of attendance on Clinical or Practical Surgery, or two years of Practice, will be dispensed with in the case of those Candidates who at the B.S. Examination have been placed in the First Division. 3. Of Moral Character, signed by two persons of respectability.

These Certificates shall be transmitted to the Registrar at least *fourteen days* before the Examination begins.

The fee for the Degree of Master in Surgery shall be £5.

The Examination shall be conducted by means of printed papers and *vivâ voce* interrogation, and includes Logic and Moral Philosophy. Any Candidate who has taken the Degree either of B.A., B.Sc., or M.D. in this University is exempted from this part of the Examination; and any Candidate who has passed the Second M.B. Examination may at any subsequent M.S. Examination present himself for Logic and Moral Philosophy alone, if he so prefer; thereby gaining exemption, if he should pass, from Examination in that subject when he presents himself to be examined for the Degree of Master in Surgery.

The Examination is conducted by printed papers and *viva voce* interrogation, and includes the Dissection of a Surgical Region, or performance of Surgical Operations, and Practical Examination in Clinical Surgery.

DOCTOR OF MEDICINE.

The Examination for the Degree of Doctor of Medicine shall take place once in each year, and shall commence on the fourth Monday in November. No Candidate shall be admitted to this Examination unless he have produced Certificates to the following effect:—1. Of having passed the Second Examination for the Degree of Bachelor of Medicine in this University. 2. Of having attended, subsequently to having taken the Degree of Bachelor of Medicine in this University—*a*. To Clinical or Practical Medicine during two years in a Hospital or Medical Institution recognised by this University; *b*. Or to Clinical or Practical Medicine during one year in a Hospital or Medical Institution recognised by this University, and of having been engaged during three years in the Practice of his Profession; *c*. Or of having been engaged during five years in the Practice of his Profession, either before or after taking the Degree of Bachelor of Medicine in this University. One year of attendance on Clinical or Practical Medicine or two years of Practice, will be dispensed with in the case of those Candidates who at the Second M.B. Examination have been placed in the First Division. 3. Of Moral Character, signed by two persons of respectability.

These Certificates shall be transmitted to the Registrar at least *fourteen days* before the Examination begins.

The Fee for the Degree of Doctor of Medicine shall be £5.(o)

The Examination shall be conducted by means of printed papers and *viva voce* interrogation, and includes Logic and Moral Philosophy. (Any Candidate who has taken the Degree either of B.A., B.Sc., or M.S. in this University is exempted from this part of the Examination; and any Candidate who has passed the Second M.B. Examination may at any subsequent M.D. Examination present himself for Logic and Moral Philosophy alone, if he so prefer; thereby gaining exemption, if he should pass, from Examination in that subject when he presents himself to be examined for the Degree of Doctor of Medicine.) Medicine, including Practical Examination in Clinical Medicine.

If in the opinion of the Examiners sufficient merit be evinced, the Candidate who shall distinguish himself the most in Medicine at the Examination for the Degree of Doctor of Medicine shall receive a Gold Medal of the value of £20.

REGULATIONS RELATING TO CANDIDATES WHO COMMENCED THEIR MEDICAL STUDIES IN OR BEFORE JANUARY, 1839.

Bachelor of Medicine. — Candidates who commenced their Professional Studies in or before January, 1839, shall be required to pass the Preliminary Scientific Examination in Chemistry and Botany only, and shall be admitted to the First Examination for the Degree of Bachelor of Medicine on producing Certificates to the following effect:—1. Of having been engaged during two years in their Professional Studies. 2. Of having attended a Course of Lectures on each of four of the subjects comprehended in the list previously given.(p) 3. Of having Dissected during nine months. 4. Of having attended to Practical Pharmacy during a sufficient length of time to enable them to acquire a practical knowledge in the Preparation of Medicines.

Candidates who commenced their Professional Studies in or before January, 1839, shall be admitted to the Second Examination for the Degree of Bachelor of Medicine on producing Certificates to the following effect: — 1. Of having been engaged during four years in their Professional Studies. 2. Of having passed the First M.B. Examination. 3. Of having attended a Course of Lectures on each of two of the subjects comprehended in the list previously given (p) 4. Of having Dissected during twelve months. 5. Of having attended to Practical Pharmacy during a sufficient length of time to enable them to acquire a practical knowledge in the Preparation of Medicines. 6. Of having conducted at least Six Labours. 7. Of having attended the Surgical Practice of a recognised Hospital or Hospitals during twelve months. 8. Of having attended the Medical Practice of a recognised Hospital or Hospitals during other twelve months. 9. Of Moral Character from a Teacher in the last School or Institution at which they have studied, as far as the Teacher's opportunity of knowledge has extended.

Candidates who have not taken a Degree in Arts, or passed the Matriculation Examination in this University, will be required to translate a portion of Celsus *de Re Medica*.

REGULATIONS RELATING TO PRACTITIONERS IN MEDICINE OR SURGERY DESIROUS OF OBTAINING DEGREES IN MEDICINE.(q)

Bachelor and Doctor of Medicine. — Bachelor of Medicine.— Candidates shall be admitted to the two Examinations for the Degree of Bachelor of Medicine on producing Certificates to the following effect:—1. Of having been admitted prior to the year 1840 Members of one of the legally constituted Bodies in the United Kingdom for Licensing Practitioners in Medicine or Surgery; or of having served previously to 1840 as Surgeons or Assistant-Surgeons in her Majesty's Army, Ordnance, or Navy, or in the service of the Honourable the East India Company. 2. Of having received a part of their education at a recognised Institution or School, or required by the Charter of the University. 3. Of Moral Character, signed by two persons of respectability.

Candidates who have not taken a Degree in Arts, or passed the Matriculation Examination in this University, will be required to translate a portion of Celsus *de Re Medica*.

Doctor of Medicine.—Candidates who have been engaged during five years in the Practice of their Profession shall be admitted to the Examination for this Degree on producing Certificates to the following effect: — 1. Of having been engaged during five years in the Practice of their Profession. 2. Of having taken the Degree of Bachelor of Medicine in this University.

Candidates who have not taken a Degree in Arts, or passed the Matriculation Examination in this University, will be required to translate a portion of Celsus *de Re Medica*.

Examinations in 1871-72.—The following are the dates at which the several Examinations for the year 1871-72 will commence:—Matriculation: Monday, January 9, and Monday, June 26, 1871; and Monday, January 8, 1872. Bachelor of Arts: First B.A., Monday, July 17; Second B.A., Monday, October 23. Master of Arts: Branch I., Monday, June 5; Branch II., Monday, June 12; Branch III., Monday, June 19. Doctor of Literature: First D.Lit., Monday, June 5; Second D.Lit., Tuesday, October 10. Scriptural Examinations: Tuesday, November 21. Bachelor of Science: First B.Sc. Monday, July 17; Second B.Sc., Monday, October 23. Doctor of Science: Within the first 21 days of June. Bachelor of Laws: First LL.B. and Second LL.B., Tuesday, January 10, 1871, and within the first 14 days of January 1872. Doctor of Laws: Thursday, January 19, 1871, and in the week following the LL.B. Pass Examinations in January, 1872. Bachelor of Medicine: Preliminary Scientific, Monday, July 17; First M.B., Monday, July 31: Second M.B., Monday, November 6. Bachelor of Surgery: Tuesday, November 28. Master in Surgery: Monday, November 27. Doctor of Medicine: Monday, November 27. Examination for Women: Monday, May 1.

(o) This Fee will continue to be £10 to all such as, having taken their M.B. Degree under the former Regulations, shall not have paid the Fee of £5 at the Preliminary Scientific Examination.

(p) *See* First M.B. Examination, Clause 8.

(q) All these Regulations are applicable exclusively to Practitioners who obtained their Licences or Commissions prior to 1840.

UNIVERSITY OF DURHAM.

For Registration.—No one shall be held to be a Student in Medicine who has not been registered in a register kept for that purpose. No one shall be so registered unless he has passed one of the preliminary Examinations recommended by the General Medical Council. Every registered Student shall receive from the Registrar a Certificate of his Registration, for which he shall pay the sum of five shillings. The Registration Examination shall be directed to the Rudiments of Religion, Literature, and Science; and shall be conducted by two or more Examiners nominated by the Warden. The registration Examination shall be held twice a year, viz.:—Shortly before the Winter Session, and shortly before the Summer Session, of the College of Medicine, Newcastle-upon-Tyne. The Registration Examination will begin at Durham, on Tuesday, September 19, 1871, and on April 17 and September 18, 1872, at 9 a.m. on each day. Applications to be made to Arthur Beanlands, Esq., Durham, at least one month before the day of Examination, to whom also Candidates must, at the same time, send the Examination fee, £1, and a Certificate of character, and specify the optional subject in which he wishes to be examined.

Subjects of Examination for September 19, 1871.—Necessary Subjects:—The History contained in the Acts of the Apostles; English Grammar and Composition; Arithmetic, including Vulgar and Decimal Fractions; Algebra, including Simple Equations; Euclid, Books I. and II.; Latin Grammar, with Virgil, Æneid, Lib. I. and II.; and one of the following optional subjects:—Greek Grammar, with Xenophon's Memorabilia; French Grammar, with Voltaire's Charles XII.; German Grammar, with Goëthe's Dichtung und Wahrheit, Book I.; Elementary Questions in Mechanics, Hydrostatics, and Pneumatics.

Subjects of Examination for April 17, *and September* 18, 1872.—Necessary Subjects:—The History contained in the Acts of the Apostles; English Grammar and Composition; Arithmetic, including Vulgar and Decimal Fractions; Algebra, including Simple Equations; Euclid, Books I. and II.; Latin Grammar, with—in April, Cæsar, De Bello Gallico, Lib. I. and II.; in September, Virgil, Æneid, Lib. I. and II.; and one of the following subjects:—Greek Grammar, with Xenophon's Memorabilia; French Grammar, with Voltaire's Charles XII.; German Grammar, with Goëthe's Dichtung und Wahrheit, Book I.; Elementary Questions in Mechanics, Hydrostatics, and Pneumatics. The following Examinations are also accepted as qualifications for Registration:—1. Durham Senior Examination of persons not Members of the University. For this, Candidates are required to satisfy the Examiners in Latin, Algebra (including Simple Equations), Euclid, (Books I. and II.); and one of the four following subjects:—(1) Greek, (2) French, (3) German, (4) Mechanics, Hydrostatics, and Pneumatics. 2. Durham Examinations for Students in Arts in their first year.

The next Senior Examinations of persons not Members of the University, will commence at Durham, on Monday, June 10, 1872, at 2 o'clock.

For Licences and Degrees.—Candidates for the Degrees of M.C., M.B., and M.D., in the University of Durham, are required to reside for three Terms at the University, either in Durham or in Newcastle.

For the Licence in Surgery.—The Regulations are the same as those for the Licence in Medicine, except that the Final Examination is directed more particularly to Surgery, and may or may not be passed at the same time as the Final Examination for the Licence in Medicine.

For the Licence in Medicine.—A Candidate must produce Certificates of Registration as a Student in Medicine, of having, after Registration, spent four years in Medical Study at one or more of the Schools recognised by the Licensing bodies named in Schedule (A) of the Medical Act, 1858, of good moral conduct, and of having attained the age of 21 years. There are two Examinations; one after the second Winter Session, the other after the fourth Winter Session, of Medical Study. The first is directed to Anatomy, Physiology, and Chemistry. The second to the other branches of Medical education, and more particularly to the Practice of Medicine.

For the Degree of Master in Surgery.—A Candidate must be a Licentiate in Surgery, and also a Licentiate in Medicine, of the University, and of the standing of eighteen Terms (six years) at least from the date of his registration at Durham, and of three Terms at least from the date of his admission to the Licence in Surgery. He must be a Bachelor of Arts, or have passed the Final Examination for B.A., or one equivalent thereto, and must have kept one year's residence in Arts, either at Durham in the University, or at Newcastle-upon-Tyne in the Durham University College of Medicine. He must also have spent one year at least in Medical and Surgical Study at some School of Medicine in connexion with the University. The Examination for this Degree is directed chiefly to the Practice of Surgery.

For the Degree of Bachelor of Medicine.—A Candidate must be of the standing of one year at least as a Licentiate in Medicine, and of six years at least from the date of his Matriculation. He must either be a Bachelor of Arts, or have kept one year's residence in Arts, either at Durham in the University, or at Newcastle-upon-Tyne in the Durham University College of Medicine, and have passed the Final Examination for the Degree of B.A., or an equivalent thereto. He must also have spent one year at least in Medical study at some School of Medicine in connexion with the University. The Examination for this Degree is directed chiefly to the Practice of Medicine.

For the Degree of Doctor in Medicine.—A Candidate must be of the standing of one year at least as a Bachelor in Medicine of the University of Durham, and of the standing of seven years from the date of his Matriculation at Durham, and must perform such exercises as the Warden and Senate require.

The Examinations for the Licences and Degrees in Medicine and Surgery are conducted in Newcastle. Those for the Licenses: 1. By Printed Papers of Questions. 2. Practically in Anatomy, Physiology, Chemistry, Materia Medica Pharmacy, Surgery, Medicine, Midwifery, and Medical Jurisprudence. 3. *Viva voce* on all the subjects. The Examinations are held, except in special cases, yearly in the month of June, at the close of the Easter Term, and are open to Members of the University. The next Examination will begin on Monday, June 13, 1872, at 9 a.m. The Licences and Degrees are conferred in Convocation at Durham. The Examiners are appointed yearly by the Warden of the University, and approved by Convocation.

Expenses at Durham.—The average annual cost of residence at University College may be estimated at £85 to £90; at Bishop Hatfield's Hall, at £70 to £75. Students may also, with the consent of the authorities, reside in a private house or lodging (approved by the authorities) without becoming Members of any College or Hall. The University fees payable by such Students will amount to about £20 per annum.

Fees for Examination and Degrees: For Senior Middle Class Examination, £1; for Examination at the end of first year, £1; for Registration Examination, £1; for Registration, 5s.; for a Certificate in Chemistry, 10s.; for each Public Examination in Medicine or in Surgery, £1; for a Licence in Medicine, £3; for a Licence in Surgery, £3; for a Degree of Master in Surgery, £6; for a Degree of Bachelor in Medicine, £6; for a Degree of Doctor in Medicine, £6.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

BY-LAWS RELATING TO MEMBERS.

1. The Members of the College, present and future, are alone eligible to the Fellowship. They have the use of the Library and Museum, and are admitted to all Lectures, but they are not entitled to any share in the government, or to attend or vote at General Meetings of the Corporation. 2. All persons who have been admitted before February 16, 1859, Licentiates of the College, are entitled to be admitted Members of the College under certain conditions. 3. Any Extra-Licentiate who shall have produced Testimonials as to character satisfactory to the Censors, and shall have assured the said Censors that he is not engaged in the practice of Pharmacy, and who shall comply with such other Regulations as are required by the By-laws of the said Corporation, may be proposed to the College to be admitted a Member of the College. 4. Any person who shall have satisfied the College touching his acquirements in General Science and Literature, and his knowledge of Medicine, Surgery, and Midwifery, and who shall comply with the By-laws and Regulations of the College, may be proposed to the College to be admitted a Member of the College. 5. Every Candidate for the Membership of the College, under the last By-law, who shall have commenced his Professional studies after September, 1861, shall satisfy the Censors' Board that previously to the commencement of his Professional studies he has obtained a Degree in Arts from some University of the United Kingdom or of the colonies, or from some other University specially recognised by the Medical Council, or that he has passed Examinations equivalent to

those required for a Degree in Arts. All other Candidates for Membership shall be examined on the subjects of General Education by the President and Censors of the College. 6. Every Candidate for Membership shall furnish proof that he has attained the age of 25 years. 7. Every Candidate shall produce a Testimonial from a Fellow or Member of the College, satisfactory to the Censors' Board, to the effect that, as regards moral character and conduct, he is a fit and proper person to be admitted a Member of the College. 8. Every Candidate (*except such as shall be admissible under the provisions of Sections* 15 *and* 16) shall produce proof of his having been engaged in Professional studies during a period of five years, of which four years at least shall have been passed at a Medical School or Schools recognised by the College. 9. Every Candidate (*except such as shall be admissible under the provisions of Sections* 15 *and* 16) shall produce evidence, satisfactory to the Censors' Board, of his having fulfilled the Course of Study prescribed for Licentiates of the College (see below) with the following exceptions:—(1.) The Candidate for Membership must have attended Lectures on Clinical Medicine during three Winter and three Summer Sessions, the attendance not to commence earlier than the second Winter Session, at a recognised Medical School. (2.) He must have attended diligently during three Winter Sessions and three Summer Sessions the Medical Practice, *and during three Winter Sessions and two Summer Sessions the Surgical Practice*, of an Hospital containing at least 100 beds, and have been engaged during six months in the Clinical study of Diseases peculiar to Women, and have served the office of Clinical Clerk in the Medical Wards during at least six months. [The requirements printed in italics apply to Candidates who commenced their Professional education in the United Kingdom on or after October 1, 1867, and to Candidates who commenced their Professional education at a recognised Foreign or Colonial School on or after October 1, 1868.] 10. Every Candidate who has prosecuted his studies abroad, whether in part or to the full extent required by the preceding By-law (*except such as shall be admissible under the provisions of Section* 16), shall, nevertheless, bring proof of his having attended, during at least twelve months, the Medical Practice of an Hospital in the United Kingdom containing at least 100 beds. 11. If the Censors' Board doubt the sufficiency of the Certificates and Testimonials produced by any Candidate, or his fitness, in any respect, for admission to Examination, they may submit the case to a General Meeting of the Fellows. 12. No Candidate shall be admitted to Examination who is engaged in trade; or who dispenses medicine, or makes any engagement with a chemist, or any other person, for the supply of medicines; or who practises Medicine or Surgery in partnership, by deed or otherwise, so long as that partnership continues. 13. No Candidate shall be admitted to Examination who refuses to make known, when required by the President and Censors, the nature and composition of any remedy he uses. 14. Every Candidate (except in cases specially exempted under Sections 15 and 16) shall give proof of his acquirements by written answers to questions placed before him, and shall be examined *viva voce* at three separate Examinations, and shall be approved by the President and Censors, or by the major part of them. 15. Any Candidate who has already obtained the Degree of Doctor or Bachelor of Medicine at a University in the United Kingdom, wherein the Courses of Study, and the Examinations to be undergone by the Students previously to graduation, shall have been adjudged by the Censors' Board to be entirely satisfactory, shall be exempt (if the Censors shall think fit) from all or any parts of the Examinations hereinbefore described, except such as relate to the Third or Pass Examination; the nature and extent of which Examination shall, in the case of each Candidate, be determined by the Censors' Board. Every Candidate for the Membership will, however, be required to translate into English a passage from a Latin author, and he will have the opportunity of showing a knowledge of Greek, or of one or more of the modern European languages. 16. If any Candidate who has attained the age of 40 years shall produce Testimonials not merely satisfactory as to his moral character and conduct, and his general and Professional acquirements, but further showing that he has improved the art or extended the science of Medicine, or has at least distinguished himself highly as a Medical Practitioner, the Censors' Board, having well weighed and considered these Testimonials, may, if they see fit, submit them to the Fellows at a General Meeting, and it shall be determined by the votes of the Fellows present, or of the majority of them, taken by ballot, whether the Candidate shall be admitted to Examination, which shall, in every such case, be as full and complete as the Censors may deem sufficient. 17. Any Candidate who shall produce satisfactory evidence of having passed an Examination on Anatomy and Physiology, conducted by any of the Bodies named in Schedule (A) to the Medical Act, and recognised by the College as requiring a Course of Study and an Examination satisfactory to the College, will be exempt from re-examination on the subjects of the Primary Examination.(a) 18. Any Candidate who shall have obtained a Degree in Surgery, at a University in the United Kingdom, after a Course of Study and an Examination satisfactory to the College, will be exempt from re-examination on Surgical Anatomy and the Principles and Practice of Surgery. 19. Any Candidate who shall have passed the Examination on Surgery conducted by the Royal College of Surgeons of England, or the Royal College of Surgeons of Edinburgh, or the Royal College of Surgeons in Ireland, after a Course of Study and an Examination satisfactory to the College, will be exempt from re-examination on Surgical Anatomy, and on the Principles and Practice of Surgery.

The Fee to be paid for admission as a Member of the College shall be 30 guineas.

BY-LAWS AND REGULATIONS RELATING TO THE EXAMINATION FOR THE MEMBERSHIP.

Every Candidate for the Membership of the College (except such as shall be admissible under the provisions of Sections 15 and 16 of the By-laws) will be required to pass the following Examinations:—

The First Examination, on Anatomy and Physiology, will be conducted on successive days, as follows:—On the First day: *Evening*, from Seven to Ten, by written questions. On the Second day: *Evening*, commencing at Seven o'clock, *viva voce*, on Dissections and Preparations.

The Second Examination will be conducted on successive days, as follows:—On the First day: *Evening*, from Seven to Ten, by written questions on Surgical Anatomy, and on the Principles and Practice of Surgery. On the Second day: *Morning*, the Candidate's practical knowledge will be tested, either at the College or in the Surgical Wards of an Hospital. *Afternoon*, from One to Four, on *Materia Medica*, and on *Chemistry in its applications to Pathology, Pharmacy, and Toxicology. This Examination will be conducted partly by written questions and partly in a practical manner. Evening*, commencing at Seven o'clock, by written questions on Midwifery and the Diseases peculiar to Women.

The Third or Pass Examination will be conducted on successive days, as follows:—On the First Day: *Afternoon*, from Two to Six, by written questions on Medical Anatomy, and on the Principles of Medicine. On the Second day: *Afternoon*, from Two to Six, by written questions on the Practice of Medicine, including the *Principles of Public Health*, and on Psychological Medicine. On the Third day: The Candidate's practical knowledge will be tested, either at the College or in the Medical Wards of an Hospital. On the Fourth day: *Afternoon*, commencing at Three o'clock, *viva voce*, on Medical Anatomy, and on the Principles and Practice of Medicine.

(The regulations in italics apply to Candidates who commenced their Professional Education in the United Kingdom on or after October 1, 1865; and to Candidates who commenced their Professional Education at a recognised Foreign or Colonial School on or after October 1, 1866.)

Examinations of Candidates for the Membership of the College will take place during 1871-72. in the months of October, December, February, April, and July.

Candidates will not be admitted to the First Examination until after the termination of the second Winter Session of Professional Study at a recognised Medical School, nor to the Second Examination until after the termination of four years of Professional Study, nor to the Third or Pass Examination until after the completion of the required Course of Professional Study.

Every Candidate must give fourteen days' notice in writing to the Registrar of the College of his intention to present himself for Examination, at the same time transmitting the following Certificates:—*For the Primary Examination.*—Evidence of having passed an Arts Examination; of having been duly registered as a Medical Student; and of having completed the second Winter Session of Professional Study at a recognised Medical School. *For the Second Examination.*—Evidence of having completed four years of Professional Study; of having attained the age of twenty-one years; of Instruction and Proficiency in the Practice of Vaccination; and of having attended not less than twenty labours. *For the Pass Examination.*—Proof of having attained the age of 25

(a) *See* Regulations relating to the Examinations.

years; a Testimonial from a Fellow or Member of the College; evidence of having completed the required Course of Professional Study.

LICENTIATES.

The College will, under its Charter, grant Licences to practise Physic, including therein the Practice of Medicine, Surgery, and Midwifery (which Licences are not to extend to make the Licentiates Members of the Corporation) to persons who shall conform to the following By-laws:—

Every Candidate for the College Licence (except when otherwise provided by the By-laws) is required to produce satisfactory evidence to the following effect:—1. Of having attained the age of 21 years. 2. Of moral character. 3. Of having passed, before the commencement of Professional Study, an Examination in the subjects of General Education recognised by the College. 4. Of having been registered as a Medical Student in the manner prescribed by the General Medical Council. 5. Of having been engaged in Professional Studies during four years, of which at least three Winter Sessions and two Summer Sessions shall have been passed at a recognised Medical School or Schools, and one Winter Session and two Summer Sessions in one or other of the following ways:—*a*. Attending the practice of an Hospital or other Institution recognised by the College for that purpose; *b*. Receiving instruction as the pupil of a legally qualified Practitioner holding any Public Appointment which affords opportunities, satisfactory to the Examiners, of imparting a practical knowledge of Medicine, Surgery, or Midwifery; *c*. Attending Lectures on any of the required subjects of Professional Study at a recognised place of instruction. (Professional Studies commenced *before* the Candidate shall have passed an Examination in the subjects of General Education will not be recognised by the College.) 6. *Of having attended, during three Winter Sessions and two Summer Sessions, the Medical and Surgical Practice at a recognised Hospital or Hospitals, and of having discharged the duties of Clinical Clerk and Dresser for periods of not less than three months;* and of having been engaged during six months in the Clinical Study of Diseases peculiar to Women. 7. Of having studied the following subjects:—Anatomy (with dissections) during two Winter Sessions; (b) Physiology during two Winter Sessions; Chemistry during six months; Practical Chemistry during three months; Materia Medica during three months; Practical Pharmacy during three months (by Practical Pharmacy is meant Instruction in the Laboratory of a Registered Medical Practitioner or of a Member of the Pharmaceutical Society of Great Britain, or of a Public Hospital or Dispensary recognised by the College); Botany during three months (this Course of Lectures may be attended prior to the commencement of Professional Studies; and any candidate producing satisfactory evidence that Botany formed one of the subjects of his Preliminary Examination will be exempt from attendance on this Course); Morbid Anatomy during six months (this includes attendance and instruction in the Post-mortem Room during the period of Clinical Study); Principles and Practice of Medicine during two Winter Sessions (it is required that the Principles of Public Health should be comprised in this Course of Lectures, or in the Course of Lectures on Forensic Medicine. The attendance on these Lectures must not commence earlier than the second Winter Session at a recognised Medical School); Principles and Practice of Surgery *during two Winter Sessions* (the attendance on these Lectures must not commence earlier than the second Winter Session at a recognised Medical School); Clinical Medicine *during two Winter Sessions and two Summer Sessions* (b) (the attendance on these Lectures must not commence until after the first Winter Session at a recognised Medical School); Clinical Surgery *during two Winter Sessions and two Summer Sessions* (the attendance on these Lectures must not commence until after the first Winter Session at a recognised Medical School. By Clinical Medicine and Clinical Surgery are meant special Study and Instruction at the bedside, with Lectures on Cases); Midwifery and the Diseases peculiar to Women during three months (Certificates must also be produced of attendance on not less than twenty Labours and of Instruction and Proficiency in Vaccination); Forensic Medicine during Three Months. 8. Of having passed the Professional Examinations. (The requirements printed in italics apply to Candidates who commenced their Professional education in the United Kingdom on or after October 1, 1867; and to Candidates who commenced their Professional education at a recognised Foreign or Colonial School on or after October 1, 1868.)

(b) The Winter Session comprises a period of six months, and the Summer Session a period of three months.

Any Candidate who shall produce satisfactory evidence of having passed an Examination on Anatomy and Physiology, conducted by any of the Bodies named in Schedule (A) to the Medical Act, and recognised by the College as requiring a Course of Study and an Examination satisfactory to the College, shall be exempt from re-examination on the subjects of the Primary Examination.(c) Any Candidate who shall have obtained a Degree in Medicine at a University recognised by the College, after a Course of Study and an Examination satisfactory to the College, shall be exempt from re-examination on the subjects of the Primary Examination. Any Candidate who shall have obtained a Degree in Surgery at a University in the United Kingdom, after a Course of Study and an Examination satisfactory to the College, shall be exempt from re-examination on Surgical Anatomy, and on the Principles and Practice of Surgery. Any Candidate who shall have passed the Examination on Surgery conducted by the Royal College of Surgeons of England, or the Royal College of Surgeons of Edinburgh, or the Royal College of Surgeons in Ireland, after a Course of Study and an Examination satisfactory to the College, shall be exempt from re-examination on Surgical Anatomy, and on the Principles and Practice of Surgery. Any Candidate, being a "Registered Medical Practitioner," whose Qualification or Qualifications shall have been obtained before the 1st day of January, 1861, having been, with the consent of the College, admitted a Candidate for the Licence, will be examined on the Principles and Practice of Medicine, Surgery, and Midwifery; but he will be exempted from such other parts of the Professional Examinations as his Qualifications may seem to the Examiners to render in his case unnecessary.

Licentiates of this College shall not compound or dispense medicines except for patients under their own care.

BY-LAWS AND REGULATIONS RELATING TO THE EXAMINATION FOR THE LICENCE.

Every Candidate for the College Licence, before he is admitted to Examination, will be required to sign a declaration, stating whether he has or has not been rejected within three months by any of the Examining Boards included in Schedule (A) to the Medical Act.

The First Examination, on Anatomy and Physiology, will be conducted on successive days, as follows:—on the first day: Evening, from 7 to 10, by written questions. On the second day: Evening, commencing at 7 o'clock, *viva voce*, on Dissections and Preparations. The Second or Pass Examination will be conducted on successive days, as follows:—On the first day: Evening, from 7 to 10, by written questions on Surgical Anatomy, and on the Principles and Practice of Surgery. On the second day: Morning—The Candidate's practical knowledge will be tested, either at the College or in the Surgical Wards of an Hospital. Afternoon, from 1 to 4, on Materia Medica, and on Chemistry in its applications to Pathology, Pharmacy, and Toxicology.(d) This Examination will be conducted partly by written questions and partly in a practical manner. Evening, commencing at 7 o'clock, by written questions on Midwifery and the Diseases peculiar to Women. On the third day: Evening, from 7 to 10, by written questions on Medical Anatomy, and on the Principles and Practice of Medicine, including the Principles of Public Health. On the fourth day: Morning—The Candidate's practical knowledge will be tested, either at the College or in the Medical Wards of an Hospital. Evening, commencing at 7 o'clock, *viva voce*, on the Principles and Practice of Medicine, Surgery, and Midwifery.

Candidates will not be admitted to the First Examination until after the termination of the second Winter Session of Professional Study at a recognised Medical School, nor to the Second or Pass Examination until after the termination of four years of Professional Study.

After October, 1870, the College will not admit to the Pass Examination any Candidate (not exempted from Registration) whose name had not been entered in the Medical Students' Register at least four years previously.

Any Candidate who shall be rejected at the First Examination will not be readmitted to examination until after the lapse of three months, and will be required to produce a Certificate

(c) *See* Regulations relating to the Examinations.

(d) Candidates who shall have passed the First Examination for the Licence at this College before October 1, 1867, are exempted from re-examination on Materia Medica and on Chemistry in its application to Pharmacy.

Examinations of Candidates for the College Licence will take place, commencing as follows:—For the First Examination on the first Mondays in the months of February, April, July, October, and December; and for the Second or Pass Examination on the second Mondays of the same months.

of the performance of Dissections or other Professional Study satisfactory to the Examiners during that time.

Any Candidate who shall be rejected at the School or Pass Examination will not be readmitted to examination until after the lapse of six months, and will be required to produce a Certificate of attendance on the Practice of a recognised Hospital during that time, and also of attendance on Clinical Lectures.

Every Candidate intending to present himself for examination is required to give fourteen days' notice in writing to the Registrar of the College, at the same time transmitting the following Certificates :—For the First Examination : Evidence of having passed an Arts Examination; of having been duly registered as a Medical Student; and of having completed the second Winter Session of Professional Study at a recognised Medical School. For the Second or Pass Examination : Evidence of having completed four years of Professional Study; of having attained the age of 21 years; of Instruction and Proficiency in the Practice of Vaccination; and of having attended not less than twenty labours. A testimonial of moral character is required of every Candidate.

Blank forms of the required Certificates of Attendance on Hospital Practice and on Lectures may be obtained on application at the College.

The Fee for the College Licence is Fifteen Guineas, of which Five Guineas are to be paid on admission to the First Examination, which fee will not be returned to any Candidate rejected at this Examination, but will be allowed in the fee for the Licence, and he will be admitted to one subsequent First Examination without the payment of an additional fee.

Any Candidate who shall be rejected at the Second or Pass Examination will have the fee paid on admission to this Examination returned to him, less Three Guineas.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

REGULATIONS RELATING TO THE EDUCATION AND EXAMINATION OF CANDIDATES FOR THE DIPLOMA OF FELLOW.

Section I.—*Preliminary Examination.*—I. Candidates will be required to produce one or other of the following Certificates or Testamurs, viz. :—1. Of Graduation in Arts at a University recognised for this purpose. The following are the Universities at present recognized, viz. :—Oxford, Cambridge, Dublin, London, Durham, Queen's University in Ireland, Edinburgh, Glasgow, Aberdeen, and St. Andrews; Calcutta, Madras, and Bombay; Canada—McGill's College, Montreal; and Queen's College, Kingston. A Certificate or Testamur of Graduation in Arts at a Foreign University, on the special recommendation of the Court of Examiners, approved by the Council. 2. Of having passed such Examinations in Arts as shall from time to time be required for Graduation in Medicine by a University recognised for this purpose. The following are the Universities at present recognized, viz. :—Oxford, Cambridge, Dublin, London, and Durham. II. Candidates who shall not be able to produce one or other of the foregoing Certificates will be required to pass an Examination in English, Classics, and Mathematics, conducted by the Board of Examiners of the Royal College of Preceptors, under the direction and supervision of the Council of the College.

The following are the subjects of the Examination referred to in the foregoing paragraph for the year 1870, viz. :—

Part I. Compulsory Subjects.—1. Reading aloud a passage from some English author. 2. Writing from dictation. 3. English Grammar. 4. Writing a short English composition : such as a description of a place, an account of some useful or natural product, or the like. 5. Arithmetic. No Candidate will be passed who does not show a competent knowledge of the first four rules, simile and compound, of Vulgar Fractions and of Decimals. 6. Questions on the Geography of Europe, and particularly of the British Isles. 7. Questions on the outlines of English History—that is, the succession of the Sovereigns and the leading events of each reign. 8. Mathematics : Euclid, Books I. and II. or the subjects thereof; Algebra to Simple Equations inclusive. 9. Translation of a passage from the second book of Cæsar's Commentaries "De Bello Gallico." 10. Translation of a passage from the First Book of the Anabasis of Xenophon. 11. Translation of a passage from X. B. Saintine's "Picciola"; or, at the option of the Candidate, translation of a passage from Schiller's "Wilhelm Tell."

Part II. Optional Subjects.—Papers will also be set on the following subjects; and each Candidate will be required to offer himself for Examination on one subject, at his option :—1. Translation of a passage in French or German, as the case may be, from the before-mentioned works. Besides these Translations into English, the Candidate will be required to answer questions on the grammar of each subject, whether compulsory or selected. 2. Mechanics. The questions will be chiefly of an elementary character. 3. Chemistry. The questions will be on the elementary facts of Chemistry. 4. Botany and Zoology. The questions will be on the classification of plants and animals. The quality of the handwriting and spelling will be taken into account. N.B. Each Candidate (who has not already paid the amount) is required to pay a fee of £2 on the morning of the first day of the Examination, prior to his admission thereto. The next Examinations will be held on or about the third Tuesday or Wednesday in June and December. The exact dates of the Examinations will be duly advertised when fixed in the Medical journals; and Candidates are required to send in the prescribed forms of application not less than three weeks before the commencement of the Examination.

Note.—*Candidates who passed, prior to the 1st of January, 1870, an Examination recognised as equivalent to the Preliminary Examination for the Diploma of Member, will be required, in order to qualify for the Fellowship, to pass in Algebra, Greek, and French or German, included in Part I., and in one, at their option, of the four subjects included in Part II. of the foregoing Examination, and those who passed, subsequently to the 1st of January, 1870, an Examination equivalent to that required for the Membership, will have to pass in all the aforesaid subjects excepting Algebra, when the Certificate shall contain evidence that this last subject was included in the first-named Examination.*

Special Notice. — In the case of Candidates, natives of India, the Certificates of having passed the Matriculation Examinations of the Universities of Calcutta, Madras, and Bombay will be recognised as equivalent to the foregoing Preliminary Examination, provided that they contain evidence that, in addition to the compulsory subjects thereof, the Candidate passed in Latin, and, in lieu of Greek, in one of the Eastern languages comprised in the lists of subjects issued from time to time by the respective Universities.

Section II. *Professional Education.*—I. Except in the cases and instances hereinafter provided for to the contrary, every Candidate for admission to the First or Anatomical and Physiological Examination for the Fellowship is required to produce the following Certificates, viz. :—1. Of having passed the Preliminary Examination appointed by the Council, or such other Examination as the Council may from time to time determine to be equivalent thereto. 2. Of having studied Practical Pharmacy during three months. 3. Of having attended Lectures on Anatomy during two Winter Sessions at a recognised School or Schools. 4. Of having performed Dissections at a recognised School or Schools during three Winter Sessions. 5. Of having attended Lectures on General Anatomy and Physiology during one Winter Session at a recognised School. 6. Of having attended a Practical Course of General Anatomy and Physiology during another Winter or a Summer Session, consisting of not less than thirty meetings of the Class, at a recognised School. *Note A.*—By the Practical Course referred to in Clause 6, it is meant that the learners themselves shall, individually, be engaged in the necessary experiments, manipulations, &c. 7. Of having attended one Course of Lectures on Comparative Anatomy, one Course of Lectures on Chemistry, and a three months' Course of Practical Chemistry (with Manipulations), in its application to Medical Study, at a recognised School or Schools. *Note B.*—The Course of Lectures on Chemistry included in Clause 7 will not be required in the case of a Candidate who shall have passed a satisfactory Examination in this subject in his Preliminary Examination. *Note C.*—The Certificates of attendance on the several Courses of Lectures must include evidence that the Student has attended the Practical Instructions and Examinations of his Teacher in each Course.

II. Except in the cases and instances hereinafter provided for to the contrary, every Candidate before his admission to the second Professional Examination is required to produce the following Certificates, viz. :—1. Of being 25 years of age. 2. Of having been engaged for six years in the acquirement of Professional knowledge in Hospitals or Schools of Anatomy, Surgery, and Medicine recognised by the Council of the College for that purpose; or if the Candidate be already a Member of the College, he shall produce Certificates of having been engaged for two years in the acquirement of Professional knowledge in recognised Hospitals and Schools, in addition to the Certificates required for the Diploma of Member. 3. Of having attended Lectures on Surgery, during one Winter Session, at a recognised School. 4. Of having attended a

Course of Practical Surgery during a period occupying not less than six months prior or subsequent to the Course required by the preceding Clause No. 3, at a recognised School. *Note D.*—The Course of Practical Surgery referred to in Clause 4 is intended to embrace instruction in which each pupil shall be exercised in practical details, such as in the application of Anatomical facts to Surgery, on the living person, or on the dead body; the methods of proceeding and the manipulations necessary in order to detect the effect of diseases and accidents on the living person or on the dead body; the use of Surgical apparatus; the examination of diseased structures, as illustrated in the contents of a museum of Morbid Anatomy and otherwise. 5. Of having attended, at one or more recognised School or Schools, one Course of Lectures on each of the following subjects, viz.:—Materia Medica, Medicine, Forensic Medicine. Midwifery (with practical instruction, and a certificate of having personally conducted not less than ten labours). Pathological Anatomy during not less than three months. *Note E.*—The Certificates of attendance on the several Courses of Lectures, must include evidence that the Student has attended the Practical Instructions and Examinations of his Teacher in each Course. 6. Of having performed operations on the dead body under the superintendence of a recognised Teacher. 7. Of instruction and proficiency in the practice of Vaccination. *Note F.*—In the case of Candidates who commenced their Professional Education on or after October 1, 1868, the Certificate of Instruction in Vaccination will only be received from recognised Vaccine Stations, or from recognised Vaccine Departments in Medical Schools or Hospitals, or other Public Institutions, where the appointed Teacher of Vaccination is not liable to frequent change, and where ample means for study are provided by not less than such a number of cases (eight or ten on an average weekly) as may be found, after due inquiry, to be sufficient for this purpose at each place. 8. Of having attended the Surgical Practice of a recognised Hospital or Hospitals during four Winter and four Summer Sessions, and the Medical Practice of a recognised Hospital or Hospitals during one Winter and one Summer Session. 9. Of having been individually engaged, at least twice in each week, in the observation and examination of Patients at a recognised Hospital or Hospitals, under the direction of a recognised Teacher, during not less than three months. *Note G.*—It is intended that the Candidate should receive the instruction required by Clause 9 at an early period of his attendance at the Hospital. 10. Of having attended Clinical Lectures on Surgery during two Winter and two Summer Sessions, and Clinical Lectures on Medicine during one Winter and one Summer Session at one or more recognised Hospital or Hospitals. 11. Of having attended, during three Winter and two Summer Sessions, Demonstrations in the Post-mortem Rooms of a recognised Hospital. 12. Of having served the office of House-Surgeon or Dresser, for not less than six months, in a recognised Hospital.

Notice.—*The alterations in the Regulations, which are applicable to Candidates who commenced their Professional Studies on or after October* 1, 1870, *are contained in Clauses* 3, 5, *and* 6, *paragraph I., in Clauses* 3, 4, 5, 9, 10, *and* 11, *paragraph II., and in notes A, B, C, D, E, and G, paragraphs I. and II. of Section II.*

III. In the case of a Candidate who shall have taken by Examination the Degree of Bachelor or Master of Arts in any University in the United Kingdom recognised by the Council for this purpose, it shall be sufficient for him to produce a Certificate or Certificates that he has been engaged for five years (instead of six years) in the acquirement of Professional knowledge in Hospitals or Schools of Anatomy, Surgery, and Medicine recognised by the Council of the College for that purpose.

IV. Any Member of the College shall, after the expiration of eight years from the date of his Diploma, be entitled to be admitted to the Professional Examination for the Fellowship upon the production of a Certificate, signed by three Fellows, that he has been for eight years in the practice of the Profession of Surgery, and that he is a fit and proper person to be admitted a Fellow if upon examination he shall be found qualified.

Section III.—*Professional Examinations.*—1. The Examinations are held twice in the year, in the months of May and November, and at such other times as the Council may appoint. 2. The Examinations occupy not less than two days, either successive or at such intervals as the Court of Examiners may appoint. 3. The first Examination on Anatomy and Physiology is partly written and partly *viva voce*, on the recently dissected subject and on prepared parts of the Human Body; the second Examination, on Pathology, Therapeutics, and the Principles and Practice of Surgery and Medicine,(a) is partly written, partly *viva voce*, and partly on the practical use of Surgical Apparatus, and includes the examination of patients, and operations on the dead body. 4. Prior to his admission to the first or Anatomical and Physiological Examination, the Candidate is required to pay—*a.* A fee of Five Guineas, to be allowed on the fee for the Diploma of Fellow, but to be retained in case of rejection. 5. Prior to his admission to the second Professional Examination, the Candidate is required to pay—*a.*(b) A fee of Five Guineas (if a Member) over and above all charges for stamps, to be retained in case of rejection. *b.*(b) A fee of Twenty-five Guineas (if not a Member) over and above all charges for stamps, of which Five Guineas will be retained in case of rejection. 6. A Candidate whose qualifications shall be found insufficient on his Anatomical and Physiological Examination shall be referred, and shall not be allowed to present himself for re-examination until after the expiration of six months from the date of his reference. 7. A Candidate whose qualification shall be found insufficient upon his Pathological and Surgical Examination shall be referred, and shall not be allowed to present himself for re-examination until after the expiration of one year from the date of his reference, unless the Court of Examiners shall otherwise determine.

REGULATIONS RESPECTING THE EDUCATION AND EXAMINATION OF CANDIDATES FOR THE DIPLOMA OF MEMBER OF THIS COLLEGE.

I. *Preliminary General Education and Examination.*—(1.) Candidates who commenced their Professional Education on or after January 1, 1861, will be required to produce one or other of the following Certificates:—1. Of Graduation in Arts at a University recognised for this purpose. The following are the Universities at present recognised, viz.:—Oxford, Cambridge, Dublin, London, Durham, Queen's University in Ireland, Edinburgh, Glasgow, Aberdeen, and St. Andrews; Calcutta, Madras, and Bombay; Canada—M'Gill College, Montreal; and Queen's College, Kingston. 2. Of having passed an Examination for Matriculation, or such other Examination as shall, in either case, from time to time be sanctioned by the Council of this College, at a University in the United Kingdom, or at a Colonial or Foreign University recognised by the Council of this College. The following are the Examinations at present recognised under this Clause (No 2), viz.:—Oxford.—Responsions or Moderations. Middle-Class Examinations, Senior, the Certificates to include Latin and Mathematics. Cambridge.—Previous Examination. Middle-Class Examinations, Senior, the Certificates to include Latin and Mathematics. Dublin.—Entrance Examination. London.—Matriculation Examination. Durham.—Examination of Students in Arts in their second and first years. Middle-Class Examinations, Senior, the Certificates to include Latin and Mathematics. Registration Examination for Medical Students. Queen's University in Ireland.—Two years' Arts Course for Diploma of Licentiate in Arts. Preliminary Examinations at end of B.A. Course. Middle-Class Examinations, the Certificates to include Latin and Mathematics. Matriculation Examinations. Edinburgh, Aberdeen, Glasgow, and St. Andrews.—Preliminary or Extra Professional Examinations for Graduation in Medicine. Calcutta, Madras, and Bombay.—Matriculation Examinations. Canada; Queen's College, Kingston.—Matriculation Examination, Preliminary Examination of Students in Medicine; M'Gill College, Montreal; University College, Toronto; Victoria College, Toronto; University of Laval, Quebec.—Matriculation Examinations. Nova Scotia; King's College, Windsor.—Matriculation Examination. Responsions. New Brunswick; Fredericton.—Matriculation Examination. Australia: Melbourne.—Matriculation Examination, with a Certificate that the Student has passed an Examination in Latin; Sydney.—Matriculation Examination. New York; Bellevue Hospital Medical College.—Matriculation Examination. 3. Of having passed the Preliminary Ex-

(a) Candidates can claim exemption from Examination in Medicine under the following conditions, viz.:—1. The production by the Candidate of a Degree, Diploma, or Licence in Medicine entitling him to register under the Medical Act of 1858, or a Degree, Diploma, or Licence in Medicine of a Colonial or Foreign University approved by the Council of the College. 2. A declaration by the Candidate, prior to his admission to the Final Examination for the Fellowship, that it is his intention to obtain either of the Medical qualifications mentioned in the foregoing paragraph, in which case the Diploma of the College will not be issued to him until he shall produce either the said Medical qualification or proof of having passed the several Examinations entitling him to receive the same. N.B. A Candidate who has passed an Examination in Medicine for the Membership will not be required to pass any further Examination in Medicine for the Fellowship.

(b) The sum of £2 paid on the Preliminary Examination will be allowed against these amounts.

amination for the Fellowship of this College. 4. Of having passed the Preliminary Examinations of the Royal Colleges of Surgeons in Ireland and of Edinburgh, or of the Faculty of Physicians and Surgeons of Glasgow. 5. Of having passed the Examination in Arts of the Society of Apothecaries of London, or of the Apothecaries' Hall of Ireland. 6. Of having passed the First-class Examination of the Royal College of Preceptors. 7. Of having obtained the Testamur of the Codrington College, Barbadoes. 8. Of having obtained the Degree of Associate of Arts granted by the Tasmanian Council of Education, with a Certificate that the Student has been examined in Latin and Mathematics. 9. Of having passed the Voluntary Examinations of Christ's College, Canterbury, New Zealand, the Certificate to include all the subjects required from time to time in the Preliminary Examination of the College. (2.) Candidates who shall not be able to produce one or other of the foregoing Certificates will be required to pass an Examination in English, Classics, and Mathematics, conducted by the Board of Examiners of the Royal College of Preceptors, under the direction and supervision of this College.

The following are the subjects of the Examination referred to in the foregoing paragraph for the years 1871 and 1872, viz.: Part (1.)—Compulsory Subjects:—1. Reading aloud a passage from some English author. 2. Writing from dictation. 3. English Grammar. 4. Writing a short English composition; such as a description of a place, an account of some useful or natural product, or the like. 5. Arithmetic. No Candidate will be passed who does not show a competent knowledge of the first four rules, simple and compound, of Vulgar Fractions, and of Decimals. 6. Questions on the Geography of Europe, and particularly of the British Isles. 7. Questions on the outlines of English History—that is, the succession of the Sovereigns and the leading events of each reign. 8. Mathematics: Euclid, Books I. and II., or the subjects thereof; Algebra to Simple Equations inclusive. 9. Translation of a passage from the second book of Cæsar's Commentaries, "De Bello Gallico." Part (2.)—Optional Subjects:—Papers will also be set on the following six subjects; and each Candidate will be required to offer himself for examination on one subject at least, at his option; but no Candidate will be allowed to offer himself for examination on more than four subjects:—1. Translation of a passage from the First Book of the Anabasis of Xenophon. 2. Translation of a passage from X. B. Saintine's "Picciola." 3. Translation of a passage from Schiller's "Wilhelm Tell." Besides these Translations into English, the Candidate will be required to answer questions on the grammar of each subject, whether compulsory or optional. 4. Mechanics. The questions will be chiefly of an elementary character. 5. Chemistry. The questions will be on the elementary facts of Chemistry. 6. Botany and Zoology. The questions will be on the classification of Plants and Animals. The quality of the handwriting and the spelling will be taken into account. N.B.—Each Candidate (who has not already paid the amount) is required to pay a Fee of £2 on the morning of the first day of the Examination prior to his admission thereto. The next Examination will be held on or about the third Tuesday or Wednesday in December. The exact dates of the Examination will be duly advertised when fixed in the Medical journals; and Candidates are required to send in the prescribed forms of application not less than three weeks before the commencement of the Examination.

Note.—A Candidate in order to qualify for the Fellowship is required, in addition to the subjects included in Part I., to pass in Greek, French, or German, and in one at his option of the remaining subjects in Part (2).

II. *Professional Education.*—(1.) Professional Studies prior to the date at which the Candidate shall have passed an Examination in General Knowledge in conformity with the Regulation in the preceding Section are not recognised.

(2.) The following will be considered as the commencement of Professional Education:—1. Attendance on the Practice of a Hospital, or other Public Institution recognised by this College for that purpose. 2. Instruction as the Pupil of a legally qualified Surgeon, holding the appointment of Surgeon to a Hospital, General Dispensary, or Union Workhouse, or where such opportunities of practical instruction are afforded as shall be satisfactory to the Council. 3. Attendance on Lectures on Anatomy, Physiology, or Chemistry, by Lecturers recognised by this College. *The commencement of Professional Study, otherwise than by attendance on Lectures in recognised Medical Schools, or by attendance on the Practice of recognised Hospitals, will not be admitted until a Certificate thereof shall be furnished to the Secretary for registration at the College, by the Practitioner whose Pupil the Candidate shall have become, or by the Medical Superintendent of the Hospital or other Institution to the practice of which he shall have entered, and will, consequently, date only from the reception of such Certificate by the Secretary; the Certificate to be accompanied by proof of having passed the necessary Preliminary Examination in General Knowledge.*

(3.) Candidates will be required to produce the following Certificates, viz.:—1. Of being 21 years of age. 2. Of having been engaged, subsequently to the date of passing the Preliminary Examination, during four years; or during a period extending over not less than four Winter and four Summer Sessions in the acquirement of Professional knowledge. 3. Of having attended Lectures on Anatomy during two Winter Sessions. 4. Of having performed Dissections during not less than two Winter Sessions. 5. Of having attended Lectures on General Anatomy and Physiology during one Winter Session. 6. Of having attended a Practical Course of General Anatomy and Physiology during another Winter or a Summer Session, consisting of not less than thirty meetings of the Class. *Note A.*—By the Practical Course referred to in Clause 6, it is meant that the learners themselves shall, individually, be engaged in the necessary experiments, manipulations, &c. 7. Of having attended Lectures on Surgery during one Winter Session. 8. Of having attended a Course of Practical Surgery during a period occupying not less than six months, prior or subsequent to the Course required by the preceding Clause 7. *Note B.*—The Course of Practical Surgery referred to in Clause 8 is intended to embrace instruction in which each Pupil shall be exercised in practical details, such as in the application of Anatomical facts to Surgery, on the living person, or on the dead body. The methods of proceeding and the manipulations necessary in order to detect the effects of diseases and accidents on the living person or on the dead body. The performance, where practicable, of the operations of Surgery on the dead body. The use of Surgical apparatus. The examination of diseased structures, as illustrated in the contents of a museum of Morbid Anatomy and otherwise. 9. Of having attended one Course of Lectures on each of the following subjects, viz.:—Chemistry, Materia Medica, Medicine, Forensic Medicine, Midwifery (with practical instruction, and a Certificate of having personally conducted not less than ten labours), Pathological Anatomy during not less than three months. *Note C.*—The Course of Lectures on Chemistry included in Clause 9 will not be required in the case of a Candidate who shall have passed a satisfactory examination in this subject in his Preliminary Examination. 10. Of having studied Practical Pharmacy during three months. 11. Of having attended a three months' Course of Practical Chemistry (with Manipulations), in its application to Medical Study. 12. Of Instruction and Proficiency in the practice of Vaccination. *Note D.*—In the case of Candidates who commenced their Professional Education on or after October 1, 1868, the Certificate of Instruction in Vaccination will only be received from recognised Vaccine Stations, or from recognised vaccine departments in Medical Schools or Hospitals, or other public Institutions, where the appointed Teacher of Vaccination is not liable to frequent change, and where ample means for study are provided by not less than such a number of cases (eight or ten on an average weekly) as may be found, after due inquiry, to be sufficient for this purpose at each place. *Note E.*—The Certificates of attendance on the several Courses of Lectures must include evidence that the Student has attended the Practical Instructions and Examinations of his Teacher in each Course. 13. Of having attended, at a recognised Hospital or Hospitals, the Practice of Surgery, during three Winter(c) and two Summer(d) Sessions. 14. Of having been individually engaged, at least twice in each week, in the observation and examination of patients at a recognised Hospital or Hospitals, under the direction of a recognised Teacher, during not less than three months. *Note F.*—It is intended that the Candidate should receive the instruction required by Clause 14 at an early period of his attendance at the Hospital. 15. Of having, subsequently to the first Winter Session of attendance on Surgical Hospital Practice, attended, at a recognised Hospital or Hospitals, Clinical Lectures on Surgery, during two Winter and two Summer Sessions. 16. Of having been a Dresser at a recognised Hospital, or of having, subsequently to the completion of one year's Professional Education, taken charge of patients under the superintendence of a Surgeon, during not less than six months, at a Hospital,

(c) The Winter Session comprises a period of six months, and in England commences on October 1 and terminates on March 31.

(d) The Summer Session comprises a period of three months, and in England commences on May 1 and terminates on July 31.

General Dispensary, or Parochial or Union Infirmary recognised for this purpose, or in such other similar manner as, in the opinion of the Council, shall afford sufficient opportunity for the acquirement of Practical Surgery. 17. Of having attended, during the whole period of attendance on Surgical Hospital Practice (see Clause 13) Demonstrations in the post-mortem rooms of a recognised Hospital. 18. Of having attended, at a recognised Hospital or Hospitals, the Practice of Medicine, and Clinical Lectures on Medicine, during one Winter and one Summer Session.

Notice.—*Clauses* 6, 8, 11, 14, *and* 17, *and Notes A, B, C, E, and F, together with the Courses of Lectures on Forensic Medicine and Pathological Anatomy mentioned in Clause* 9, *are applicable to Candidates who commenced their Professional education on or after October* 1, 1870. N.B. Blank forms of the required Certificates may be obtained on application to the Secretary, and all necessary Certificates will be retained at the College.

III.—1. Certificates will not be received on more than one branch of Science from one and the same Lecturer; but Anatomy and Dissections will be considered as one branch of Science.

2. Certificates will not be recognised from any Hospital in the United Kingdom unless the Surgeons thereto be Members of one of the legally constituted Colleges of Surgeons in the United Kingdom; nor from any School of Anatomy and Physiology or Midwifery, unless the Teachers in such School be Members of some legally constituted College of Physicians or Surgeons in the United Kingdom; nor from any School of Surgery, unless the Teachers in such School be Members of one of the legally constituted Colleges of Surgeons in the United Kingdom.

3. No Metropolitan Hospital will be recognised by this College which contains less than 150, and no Provincial or Colonial Hospital which contains less than 100 Patients.

4. The recognition of Colonial Hospitals and Schools is governed by the same regulations with respect to number of Patients and to Courses of Lectures, as apply to the recognition of Provincial Hospitals and Schools in England.

5. Certificates of attendance upon the practice of a recognised Provincial or Colonial Hospital unconnected with, or not in convenient proximity to, a recognised Medical School, will not be received for more than one Winter and one Summer Session of the Hospital Attendance required by the Regulations of this College; and in such cases Clinical Lectures will not be necessary, but a Certificate of having acted as Dresser for a period of at least six months will be required.

6. Certificates will not be received from Candidates who have studied in London, unless they shall have registered at the College their cards of admission to attendance on Lectures and Hospital Practice within fifteen days from the commencement of the Session; nor from Candidates who have studied in the Provincial Schools in England, unless their names shall be duly returned from their respective Schools. N.B. At their first registration in October, Candidates will be required to produce a Certificate of having passed one or other of the Preliminary Examinations in General Knowledge recognised by this College.

7. Those Candidates who shall have pursued the whole of their studies in Scotland or Ireland will be admitted to Examination upon the production of the several Certificates required respectively by the College of Surgeons of Edinburgh, the Faculty of Physicians and Surgeons of Glasgow, and the College of Surgeons in Ireland from Candidates for their Diploma, together with a Certificate of instruction and proficiency in the practice of Vaccination, and satisfactory evidence of having been occupied, subsequently to the date of passing the Preliminary Examination, at least four years, or during a period extending over four Winter and four Summer Sessions, in the acquirement of Professional knowledge; and in the case of Candidates who shall have pursued the whole of their studies at recognised Foreign or Colonial Universities, upon the production of the several Certificates required for their Degree by the authorities of such Universities, together with a Certificate of instruction and proficiency in the practice of Vaccination, and satisfactory evidence of having been occupied, subsequently to the date of passing the Preliminary Examination, at least four years, or during a period extending over four Winter and four Summer Sessions, in the acquirement of Professional knowledge.

8. Members or Licentiates of any legally constituted College of Surgeons in the United Kingdom, and graduates in Surgery of any University recognised for this purpose by this College, will be admitted to Examination on producing their Diploma, Licence, or Degree, together with proof of being 21 years of age, a Certificate of instruction and proficiency in the practice of Vaccination, and satisfactory evidence of having been occupied, subsequently to the date of passing the Preliminary Examination, at least four years, or during a period extending over four Winter and four Summer Sessions, in the acquirement of Professional knowledge.

9. Graduates in Medicine of any legally constituted College or University recognised for this purpose by this College will be admitted to Examination on adducing, together with their Diploma or Degree, proof of being 21 years of age, a Certificate of instruction and proficiency in the practice of Vaccination, and satisfactory evidence of having been occupied, subsequently to the date of passing the Preliminary Examination, at least four years, or during a period extending over four Winter and four Summer Sessions, in the acquirement of Professional knowledge.

IV. *Professional Examination.*—This Examination is divided into two parts—1. The First or Primary Examination, on Anatomy and Physiology, is partly written and partly demonstrative, on the recently dissected subject, and on prepared parts of the human body. 2. The Second or Pass Examination, on Surgical Anatomy and the Principles and Practice of Surgery and Medicine,(e) is partly written, partly oral, and partly on the practical use of Surgical aparatus, and the practical Examination of Patients. 3. The Primary Examinations are held in the months of January, April, May, July, and November, and the Pass Examinations generally in the ensuing week respectively. 4. Candidates will not be admitted to the Primary Examination until after the termination of the Second Winter Session of their attendance at a recognised School or Schools; nor to the Pass or Surgical Examination until after the termination of the fourth year of their Professional education. 5. The fee of £5 5s., paid prior to the Primary Examination, and allowed on the whole fee of £22 (f) payable for the Diploma, is retained; and after any two consecutive failures at the Primary Examination, the Candidate is required to pay an *additional* fee of £5 5s. prior to being again admitted to that Examination, which *additional* fee is also retained. 6. £5 5s., part of the sum of £16 15s., the balance of the whole fee due for the Diploma and paid prior to the Pass Examination, is retained; and after any two consecutive failures at the Pass Examination, the Candidate is required to pay an *additional* fee of £5 5s. prior to being again admitted to the said Pass Examination, which *additional* fee is also retained. 7. A Candidate having entered his name for either the Primary or the Pass Examination, who shall fail to attend the meeting of the Court for which he shall have received a card, will not be allowed to present himself for examination within the period of three months from the date at which he shall have so failed to attend. 8. A Candidate referred on the Primary Examination is required, prior to his admission to re-examination, to produce a Certificate of the performance of dissections during not less than three months, subsequently to the date of his reference. 9. A Candidate referred on the Pass Examination is required, prior to his admission to re-examination, to produce a Certificate of at least six months' further attendance on the Surgical Practice of a recognised Hospital, together with Lectures on Clinical Surgery, subsequently to the date of his reference.

QUALIFICATION IN MIDWIFERY.

REGULATIONS RESPECTING THE PROFESSIONAL EDUCATION OF CANDIDATES FOR THIS CERTIFICATE.

1. Persons who were Fellows or Members of the College prior to the 1st day of January, 1853, will be admitted to Examination for the Certificate of Qualification in Midwifery upon producing their Diploma.

2. Persons having become Members of the College subsequently to the 1st of January, 1853, will be admitted to Examination on producing their Diploma, together with a Certificate or Certificates of having attended twenty labours.

3. Members or Licentiates of any legally constituted College of Surgeons in the United Kingdom, and Graduates in Surgery of any University recognised for this purpose by this College, will also be admitted to Examination on producing, together with their Diploma, Licence, or Degree, proof of being 21 years of age—of having been occupied at least four entire years in the acquirement of Professional knowledge—of having attended one Course of Lectures on Midwifery—and of having attended not less than twenty labours.

(e) Candidates can claim exemption from Examination in Medicine under the following conditions, viz.:—1. The production by the Candidate of a Degree, Diploma, or Licence in Medicine entitling him to register under the Medical Act of 1858, or a Degree, Diploma, or Licence in Medicine of a Colonial or Foreign University approved by the Council of the College. 2. A declaration by the Candidate, prior to his admission to the Final Examination for Membership or Fellowship, that it is his intention to obtain either of the Medical qualifications mentioned in the foregoing paragraph, in which case the Diploma of the College will not be issued to him until he shall produce either the said Medical qualification or proof of having passed the several Examinations entitling him to receive the same.

(f) This sum of £22 is exclusive of the fee of £2 paid for the Preliminary Examination.

4. Graduates in Medicine of any legally constituted College or University recognised for this purpose by this College, will also be admitted to Examination on producing, together with their Diploma or Degree, proof of being 21 years of age—of having been occupied at least four entire years in the acquirement of Professional knowledge—of having completed, at recognised Schools, the Anatomical and Surgical education required of Candidates for the Diploma of Member of the College—of having attended one Course of Lectures on Midwifery—and of having attended not less than twenty labours.

5. Person having commenced their Professional education, either by attendance on Hospital Practice, or on Lectures on Anatomy, prior to the 1st of January, 1853, will be admitted to Examination on producing the several Certificates of Professional education required for admission to Examination for the Diploma of Member of this College at the period when such persons shall respectively have, in such manner, commenced their Professional education.

6. Persons having commenced their Professional education, either by attendance on Hospital Practice or on Lectures on Anatomy, after the 31st day of December, 1852, will be admitted to Examination on producing Certificates of being 21 years of age—of having been engaged during at least four entire years in the acquirement of Professional knowledge—of having completed at recognised Schools the Professional education required of Candidates for the Diploma of Member of this College—of having attended one Course of Lectures on Midwifery and the Diseases of Women and Children—and of having personally conducted thirty labours.

Note.—All Candidates who shall commence their Professional education on or after October 1, 1866, will, in addition to the Certificates enumerated in the foregoing clauses, be required to produce a Certificate of having, prior to such commencement, passed a Preliminary Examination in General Knowledge recognised by this College.

N.B.—The fee for the Certificate is as follows; viz.:—1. Persons who were Fellows or Members of this College prior to January 1, 1853, Two Guineas. 2. Persons admitted Fellows or Members of this College subsequently to January 1, 1853, Three Guineas. 3, 4. Persons producing any other Diploma or Certificate or Degree which may be considered by the Council to afford satisfactory proof of sufficient Surgical and Medical education, Three Guineas. 5, 6. All other persons, Ten Guineas.

The Examinations are held in the months of February, May, August, and December.

REGULATIONS RESPECTING THE PROFESSIONAL EDUCATION OF CANDIDATES FOR THE EXAMINATION IN DENTAL SURGERY.

Candidates are required to produce the following Certificates:—

1. Of being 21 years of age.

2. Of having been engaged during four years in the acquirement of Professional knowledge.

3. Of having attended, at a School or Schools recognised by this College, not less than one of each of the following Courses of Lectures, delivered by Lecturers recognised by this College, viz:—Anatomy, Physiology, Surgery, Medicine, Chemistry, and Materia Medica.

4. Of having attended a second Winter Course of Lectures on Anatomy, or a Course of not less than twenty Lectures on the Anatomy of the Head and Neck, delivered by Lecturers recognised by this College.

5. Of having performed Dissections at a recognised School during not less than nine months.

6. Of having completed a course of Chemical Manipulation, under the superintendence of a Teacher or Lecturer recognised by this College.

7. Of having attended, at a recognised Hospital or Hospitals in the United Kingdom, the Practice of Surgery and Clinical Lectures on Surgery during two Winter Sessions.

8. Of having attended, at a recognised School, two Courses of Lectures upon each of the following subjects, viz.:—Dental Anatomy and Physiology (Human and Comparative), Dental Surgery, Dental Mechanics, and one Course of Lectures on Metallurgy, by Lecturers recognised by this College.

9. Of having been engaged during a period of not less than three years in acquiring a practical familiarity with the details of Mechanical Dentistry, under the instruction of a competent Practitioner.

10. Of having attended at a recognised Dental Hospital, or in the Dental department of a recognised General Hospital, the Practice of Dental Surgery during two Winter and two Summer Sessions.

N.B. The Students of the London Schools are required to register the above Certificates at this College, and special returns will be required from the Provincial Schools.

The fee for the Certificate of fitness to practise as a Dentist is Ten Guineas, over and above any stamp duty.

Members of the College will be examined only by the section of the Board consisting of persons skilled in Dental Surgery.

A Candidate whose qualification shall be found insufficient, will be referred back to his studies, and will not be admitted to re-examination within the period of six months unless the Board shall otherwise determine.

SOCIETY OF APOTHECARIES (ENGLAND).

Every Candidate for a Certificate of Qualification to practise as an Apothecary will be required to produce testimonials—1. Of having passed a Preliminary Examination in Arts, as a test of general education. (This Examination must be passed before the commencement of Professional Studies, which is defined by the Medical Council to be "the time of commencing studies at a Medical School.") 2. Of having served an apprenticeship or pupilage of not less than five years to a Practitioner qualified by the Act of 1815. This period may include the time spent in attending Lectures and Hospital Practice.) 3. Of having attained the full age of 21 years, of which satisfactory evidence will be required. 4. Of good moral conduct. 5. Of having pursued a course of Medical study in conformity with the regulations of the Court.

Course of Study.—Every Candidate whose attendance on Lectures shall have commenced on and after October 1, 1863, must attend the following Lectures and Medical Practice during not less than three Winter and two Summer Sessions (each Winter Session to consist of not less than six months, and to commence not sooner than the 1st nor later than the 15th of October; and each Summer Session to extend from May 1 to July 31):—

First Year.—Winter Session: Chemistry; Anatomy and Physiology; Dissections. Summer Session: Botany; Materia Medica and Therapeutics; Practical Chemistry.

Second Year.—Winter Session: Anatomy and Physiology, including Dissections and Demonstrations; Principles and Practice of Medicine; Clinical Medical Practice. Summer Session: Midwifery and Diseases of Women and Children, and Vaccination; Forensic Medicine and Toxicology; Clinical Medical Practice.

Third Year.—Winter Session: Principles and Practice of Medicine; Clinical Medical Lectures; Morbid Anatomy; Clinical Medical Practice.

N.B.—All Medical Students presenting themselves for the Second Examination shall produce evidence of having served the office of Clinical Clerk at a recognised Hospital during the period of six weeks at least; and also shall produce evidence that they have been examined at the Class Examinations instituted by the various Lecturers and Professors of their respective Medical Schools and Colleges.

No Certificates of Lectures or of Anatomical Instruction delivered in private to particular Students, apart from the ordinary classes of recognised Public Medical Schools, can be received by the Court of Examiners.

All Students are required *personally* to register the several tickets of admission to Lectures and Medical Practice within the first fifteen days of the months of October and May.

Examination in Arts.—Examinations will be held at the Hall of the Society on Friday and Saturday, January 26 and 27, April 26 and 27, September 27 and 28. Candidates will be examined in the following branches; and no Candidate will be approved unless he show a competent knowledge of each branch of the Examination:—1. The English Language; 2. The Latin Language; 3. Mathematics; 4. One of the following subjects, at the option of the Candidate:—(*a*) Greek, (*b*) French, (*c*) German, (*d*) Natural Philosophy. Candidates applying to be admitted to any Examination must pay the fee (one guinea) at least one week before the Examination, and must sign their names in the Candidates' Book between 11 a.m. and 3 p.m. o'clock, not later than the previous Thursday. If a Candidate fail to pass the Examination, the fee will not be returned to him, but he will be admissible to either or both of the two next following Examinations in Arts without the payment of an additional fee, upon giving the usual notice, and signing the Candidates' Book.

Syllabus of Subjects for Examination, 1872.—I. The English Language: The leading features of its history; its structure and grammar; English composition. [The books recommended for study in this subject are Adams's "Elements of the English Language" and Trench's "English, Past and Present."] II. The Latin Language: January Examination—Virgil: Æneid, Books i. and ii. April Examination—Cicero: Orat. pro Milone. September Examination—Horace: Odes, Books iii. and iv. Re-translation of easy sentences. Grammatical questions will be introduced into the Latin paper, and each Candidate will be expected to give satisfactory answers to these. III. Mathematics: The ordinary rules of arithmetic; vulgar and decimal fractions; addition, subtraction, multiplication, and division of algebraical quantities; simple equations; the first two Books of Euclid. IV. (*a*) Greek: Herodotus, Book i.; grammatical questions. (*b*) French: Molière, Le Bourgeois Gentilhomme; translation from English into French; grammatical questions. (*c*) German: Schiller's poems, Der Taucher and Der Gang nach dem Eisenhammer; translation of short sentences from English into German; grammatical questions. (*d*) Natural Philosophy: Mechanics; hydrostatics and pneumatics. [The book recommended for study in this subject is Snowball's "Cambridge Course of Elementary Natural Philosophy."]

Certificates in Arts granted by any of the bodies whose Certificate is recognised by the Medical Council will be accepted from Candidates who present themselves at the Professional Examination at the Hall as equivalent to their having passed this Examination.

Professional Examinations.—The Court of Examiners meet in the Hall every Thursday, where Candidates are required to attend at 3.45 p.m. Every person intending to offer himself for examination must give notice in writing to the Clerk of the Society on or before the Monday previous to the day of examination, and must at the same time deposit all the required testimonials and the fee at the office of the Beadle, where attendance is given every day, except Sunday, from 10 to 4 o'clock; Saturday, 10 to 2.

The examination of Candidates is divided into two parts, and is conducted partly in writing and partly *viva voce*.

The First Examination, which may be passed after the second Winter Session, embraces the following subjects:—The British Pharmacopœia; Latin of Physicians' Prescriptions;

Anatomy and Physiology; General and Practical Chemistry; Botany, and Materia Medica.

Second or Pass Examination, after the third Winter Session (the five years' pupilage being completed) :—Principles and Practice of Medicine; Pathology and Therapeutics; Midwifery, including the Diseases of Women and Children; Forensic Medicine and Toxicology.

All Graduates in Medicine of British Universities will be admitted to a Practical Examination in Medicine and Midwifery only.

Licentiates of the Royal College of Physicians, London; of the Royal College of Physicians, Edinburgh; of the Royal Colleges of Physicians and Surgeons, Edinburgh; of the King and Queen's College of Physicians, Ireland; of the Faculty of Physicians and Surgeons, Glasgow; and of the Apothecaries' Hall of Dublin, will be admitted to a *viva voce* Examination in Medicine, Midwifery, Forensic Medicine, and Toxicology.

Members of the Royal College of Surgeons, England; Licentiates of the Royal College of Surgeons, Edinburgh; and Licentiates of the Royal College of Surgeons, Ireland, possessing a Surgical qualification only, will be admitted to a First and Second Examination on one evening. The First or *viva voce* Examination will include the subjects of Physicians' Prescriptions, Visceral Anatomy, Physiology, Chemistry, Materia Medica, Botany, and Pharmacy; the Second, which is partly written and partly *viva voce*, will include the subjects of Practice of Medicine, Pathology, Therapeutics, Midwifery, Forensic Medicine, and Toxicological Chemistry.

Any Candidate who has passed his First Examination for the Licence of the Royal College of Physicians, London; the Licence of the King and Queen's College of Physicians, Ireland; the joint Licence of the Royal College of Physicians and Surgeons, Edinburgh, or for the single Licence of the College of Physicians, Edinburgh; the Licence of the Faculty of Physicians and Surgeons, Glasgow; the first Professional Examination for the Degree of M.B., or Master in Surgery, in the Universities of Oxford, Cambridge, or London; or the second part of the Professional Examination for the Degree of M.B., or Master in Surgery, in the Universities of Edinburgh, Aberdeen, St. Andrews, and Glasgow; or the First Examination for the Medical and Surgical Degrees in the Irish Universities; or the First Examination for the Licence of the Apothecaries' Company, Dublin, will be admitted to a single Examination in Materia Medica, Therapeutics, Medicine, Pathology, Midwifery, and Toxicology, part of which Examination will be conducted in writing.

The Examination of Candidates for Certificates of qualification to act as Assistant, in compounding and dispensing medicines, is as follows:—In translating Physicians' Prescriptions, in the British Pharmacopœia, in Pharmacy, Pharmaceutical Chemistry, and Materia Medica.

By the 22nd section of the Act of Parliament, no rejected Candidate for the Licence can be re-examined until the expiration of six months from his former Examination. A Candidate rejected on his first Professional Examination can be admitted to re-examination after the expiration of three months. No rejected Candidate as an Assistant can here-examined until the expiration of three months.

Fees.—For a Certificate of qualification to practise, six guineas, the half to be paid at the First Examination; for an Assistant's Certificate, two guineas.

Students' Prizes.—The Society of Apothecaries annually offer two prizes for proficiency in the knowledge of Botany, and also two prizes for proficiency in the knowledge of Materia Medica and Pharmaceutical Chemistry. The prizes consist of a gold medal awarded to the Candidate who distinguishes himself the most in the Examination; and of a silver medal and a book to the Candidate who does so in the next degree.

The Examination in Botany will be held at the Hall of the Society on the second Wednesday in June, at 10 a.m., and will be conducted by printed papers and *viva voce* questions.

The Examinations in Materia Medica and Pharmaceutical Chemistry will be held at the Hall of the Society on the third Wednesday, and on the following Friday, in October, from ten in the forenoon to one in the afternoon of each day; by printed papers on the Wednesday, and by *viva voce* questions on the Friday.

The Society's Botanic Garden at Chelsea is open daily (except Sunday) from ten till five o'clock p.m., and on Saturdays from ten till two o'clock. Tickets of admission may be had on application at the Beadle's Office, Apothecaries' Hall, Blackfriars, E.C.

ARMY MEDICAL DEPARTMENT,

WHITEHALL-YARD.

QUALIFICATIONS AND EXAMINATION OF CANDIDATES FOR COMMISSIONS IN THE ARMY MEDICAL SERVICE.

1. Every Candidate desirous of presenting himself for admission to the Army Medical Service must be unmarried, and not under 21 nor over 28 years of age. He must produce a Certificate from the District Registrar, in which the date of birth is stated; or, if this cannot be obtained, an affidavit from one of the parents or other near relative, who can attest the date of birth, will be accepted. He must produce a Certificate of moral character from the parochial minister, if possible.

2. The Candidate must make a declaration that he labours under no mental or constitutional disease, nor any imperfection or disability that can interfere with the most efficient discharge of the duties of a Medical officer in any climate. (a) He must also attest his readiness to engage for general service, and to proceed on foreign service when required to do so.

3. The Candidate must be registered under the Medical Act of 1858 as licensed to practise Medicine and Surgery in Great Britain or Ireland.

4. Certificates of registration, character, and age must accompany this Schedule when filled up and returned.

5. Candidates will be examined by the Examining Board in the following subjects:—Anatomy and Physiology, Surgery, Medicine (including Therapeutics), the Diseases of Women and Children, Chemistry and Pharmacy, and a practical knowledge of drugs. (The Examination in Medicine and Surgery will be in part practical, and will include operations on the dead body, the application of Surgical apparatus, and the examination of Medical and Surgical patients at the bedside.) The eligibility of each Candidate for the Army Medical Service will be determined by the result of the Examinations in these subjects only. Candidates who desire it will be examined in Comparative Anatomy, Zoology, Natural Philosophy, Physical Geography, and Botany with special reference to Materia Medica; and the number of marks gained in these subjects will be added to the total number of marks obtained in the obligatory part of the Examination by Candidates who shall have been found qualified for admission, and whose position on the list of successful competitors will thus be improved in proportion to their knowledge of these branches of science. Marks will also be given to Candidates who are willing to pass an Examination in French and German.

6. After passing this Examination, every Candidate will be required to attend one entire course of practical instruction at the Army Medical School on—(1) Hygiene; (2) Clinical and Military Medicine; (3) Clinical and Medical Surgery; (4) Pathology of Diseases and Injuries incident to Military Service.

7. At its conclusion, the Candidate will be required to pass an Examination on the subjects taught in the School. If he give satisfactory evidence of being qualified for the practical duties of an Army Medical Officer, he will be eligible for a Commission as Assistant-Surgeon.

8. During the period of his residence at the Army Medical School each Candidate will receive an allowance of 5s. per diem with quarters, or 7s. per diem without quarters, to cover all costs of maintenance, and he will be required to provide himself with uniform (viz., the regulation undress uniform of an Assistant-Surgeon, but without the sword).

9. All Candidates will be required to conform to such rules of discipline as the Senate may from time to time enact.

EXTRACTS FROM THE ROYAL WARRANT (April 1, 1867) FOR THE PAY AND NON-EFFECTIVE PAY OF MEDICAL OFFICERS.

The daily rates of pay of the Officers of the Medical Branch of the Hospital Department of our Army shall be as follows:—

Medical Staff.—Daily Pay: Director-General, special; Inspector-General, £2, after twenty-five years' service £2 5s., after thirty years' service £2 7s., after thirty-five years' service £2 10s.; Deputy Inspector-General, £1 10s., after twenty-five years' service £1 12s., after thirty years' service £1 15s., after

(a) His physical fitness will be determined by a Board of Medical Officers, who are required to certify that the Candidate's vision is sufficiently good to enable him to perform any Surgical operation without the aid of glasses. A moderate degree of myopia would not be considered a disqualification, provided it did not necessitate the use of glasses during the performance of operations, and that no organic disease of the eyes existed. Every Candidate must also be free from organic disease of other organs, and from constitutional weakness or other disability likely to unfit him for military service in any climate.

thirty-five years' service £1 17s.; Surgeon-Major, £1 4s., after twenty-five years' service £1 7s.; Surgeon, 17s. 6d., after fifteen years' service 20s.; Assistant-Surgeon, on appointment, 10s., after five years' service 12s. 6d., after ten years' service 15s., after fifteen years' service 17s. 6d. Charge Pay: The Officer in Medical charge of an army in the field, of 10,000 men and upwards, £1 daily; of 5000 men and upwards, 15s. daily; of less than 5000, 10s. daily; or, in Medical charge of a colony where the number of commissioned officers and enlisted men is 1500 and upwards, 5s. daily.

Apothecaries' Daily Pay.—Apothecaries, 9s., after five years' service 10s. 6d., ten years' 12s., fifteen years' 13s. 6d., twenty years' 15s., twenty-five years' 16s. 6d, thirty years' 18s.

Medical officers have the right to retire on half-pay after twenty years' service; Medical officers of the rank of Surgeon-Major, Surgeon, or Assistant-Surgeon shall be placed on the retired list at the age of 55, and all Inspectors-General and Deputy Inspectors-General at the age of 65 years.

An Apothecary shall have the right to retire on half-pay after thirty years' good service.

Non-effective Pay: A Medical officer placed on half-pay by reduction of establishment, or on the report of a Medical Board, in consequence of wounds or ill-health caused in and by the discharge of his duties, or on account of age, shall be entitled to half-pay at the following daily rates:—Inspector-General, after thirty years' service £1 17s. 6d., twenty-five years' £1 13s. 6d., twenty years', £1 10s.; Deputy Inspector-General, after thirty years' £1 5s. 6d. twenty-five years' £1 2s. 6d., twenty years' £1 1s.; Surgeon-Major, after twenty-five years' £1, twenty years' 16s. 6d.; Surgeon, after fifteen years' 13s. 6d., ten years' 11s.; Assistant-Surgeon, after ten years' 10s., five years' 8s., under five years' 6s.

The rate of half-pay awarded to officers retiring for their own convenience, after twenty years' service on full-pay, shall not exceed one-half of their full-pay at the time of retirement.

ARMY MEDICAL SCHOOL.

President of the Senate.—Sir T. Galbraith Logan, K.C.B., M.D., Director-General of the Army Medical Department.

Members of the Senate.—Sir Ranald Martin, C.B., Physician to the Indian Council; Inspector-General G. S. Beatson, M.D., C.B., Principal Medical Officer Royal Victoria Hospital; Deputy-Inspector-General T. Longmore, C.B., Professor of Military Surgery; Deputy-Inspector-General W. C. Maclean, Professor of Military Medicine; William Aitkin, M.D., Professor of Pathology; E. A. Parkes, M.D., F.R.S., Professor of Military Hygiene.

Assistant-Professors.—Staff Surgeons-Major W. A. Makinnon, C.B., and W. J. Fyffe, M.D.; Staff Surgeon F. S. B. F. De Chaumont, M.D.; and Staff Assistant-Surgeon V. Wearne.

Candidates for Commissions in the Army, and in the Queen's Indian Service, proceed to Netley after passing the Examination in London. At Netley they attend the Medical and Surgical Practice of the Royal Victoria Hospital, and learn the system and arrangements of Military Hospitals. During four months they attend the Lectures given by the Professors and Assistant-Professors, and go through a course of Practical Instruction in the Hygienic Laboratory and Microscopical Room.

NAVAL MEDICAL DEPARTMENT, ADMIRALTY.

QUALIFICATIONS AND EXAMINATION OF CANDIDATES FOR COMMISSIONS IN THE MEDICAL SERVICE OF THE ROYAL NAVY.

The Lords Commissioners of the Admiralty are pleased to direct that the following Regulations, relative to the Examination of Candidates for the Appointment of Assistant-Surgeon in the Royal Navy, shall in future be adopted:—

1. Every Candidate desirous of presenting himself for admission to the Naval Medical Service must be not under 21 nor over 28 years of age. He must produce a Certificate from the District Registrar, in which the date of birth is stated; or, if this cannot be obtained, an affidavit from one of the parents or other near relative, who can attest the date of birth, will be accepted. He must also produce a certificate of moral character.

2. The Candidate must make a declaration that he labours under no mental or constitutional disease, nor any imperfection or disability that can interfere with the most efficient discharge of the duties of a Medical officer in any climate.(a) He must also attest his readiness to engage for general service, and to proceed on foreign service when required to do so.

3. The Candidate must be registered under the Medical Act of 1858, as licensed to practise Medicine and Surgery in Great Britain or Ireland, and he must have performed the Capital and Minor Operations of Surgery under a recognised teacher.

4. Certificates of registration, character, and age must accompany the Schedule when filled up and returned.

5. Candidates will be examined by the Examining Board in the following subjects:—Anatomy and Physiology; Surgery; Medicine, including Therapeutics, the Diseases of Women and Children; Chemistry and Pharmacy, and a practical knowledge of Drugs. (The Examination in Medicine and Surgery will be in part practical, and will include Operations on the Dead Body, the Application of Surgical Apparatus, and the Examination of Medical and Surgical Patients at the Bedside.) The eligibility of each Candidate for the Naval Medical Service will be determined by the result of the Examinations in these subjects only.

Candidates who desire it will be Examined in Comparative Anatomy, Zoology, Natural Philosophy, Physical Geography, and Botany, with special reference to Materia Medica; and the number of marks gained in these subjects will be added to the total number of marks obtained in the obligatory part of the Examination by Candidates who shall have been found qualified for admission, and whose position on the list of successful competitors will thus be improved in proportion to their knowledge of these branches of science.

6. After passing this Examination, every Candidate will be required to attend one entire Course of Practical Instruction in the Medical School at Netley, on—(1) Hygiene; (2) Clinical and Naval and Military Medicine; (3) Clinical and Naval and Military Surgery; (4) Pathology of Diseases and Injuries incidental to Naval and Military Service.

7. At its conclusion, the Candidate will be required to pass an Examination on the subjects taught in the School. If he give satisfactory evidence of being qualified for the practical duties of a Naval Medical Officer, he will be eligible for a commission as Assistant-Surgeon.

8. During the period of his residence at the Netley Medical School, each Candidate will receive an allowance of 5s. per diem with quarters, or 7s. per diem without quarters, to cover all costs of maintenance; and he will be required to provide himself with uniform—viz., the regulation undress uniform of an Assistant-Surgeon, but without the sword.

9. All Candidates will be required to conform to such rules of discipline as the Senate may from time to time enact.

10. After completing three years' full-pay service, Assistant-Surgeons will be allowed to be examined for the rank of Surgeon; but no Assistant-Surgeon can be promoted to the rank of Surgeon until he shall have served five years, two of which must have been in a ship actually employed at sea.

REGULATIONS SHOWING RANK, PAY, AND POSITION OF NAVAL MEDICAL OFFICERS.

1. Assistant-Surgeons at home, after completing their time for Examination for the rank of Surgeon, may be granted two months' leave of absence on full-pay, on condition of their resuming their studies at a Medical School or Hospital.

2. Promotion to the rank of Staff Surgeon is open to Officers for distinguished or special service, although twenty years on full-pay may not have been completed; such Staff Surgeons will have 16s. a-day half-pay.

3. Staff Surgeons rank with Commanders, according to date of commission.

4. The whole time served on full-pay as an Assistant-Surgeon to be allowed to Surgeons to qualify for the rank of Staff Surgeon, provided the Examination for Surgeon is passed before the Officer completes ten years service, otherwise only ten years served as Assistant-Surgeon will be allowed to count.

5. Staff Surgeons are appointed to the Flag Ships of Commanders-in-Chief on foreign stations, with an allowance of 5s. a day in addition to their established pay.

6. The Hospital allowances for Naval Medical Officers at home and abroad, in lieu of provisions for themselves and servants, and for fuel and light, are as follows:—

	At Home.	Abroad.
	£	£
Inspector-General of Hospitals	85	130
Deputy Inspectors-General	67	112
Staff Surgeons and Surgeons	53	112
Assistant-Surgeons	39	108

In cases where Medical Officers draw provisions or fuel from public stores, they will be charged for the same at cost price.

7. The travelling allowances, extra pay, lodging money, and compensa-

(a) His physical fitness will be determined by a Board of Medical Officers, who are required to certify that the Candidate's vision is sufficiently good to enable him to perform any Surgical operation without the aid of glasses. Every Candidate must also be free from organic disease of other organs, and from constitutional weakness or other disability likely to unfit him for Naval Service in any climate.

tion for losses, are fixed for Naval Medical Officers according to their relative rank in the Service.

8. Medical Officers have cabins according to their relative rank in the Service, excepting always that the Senior Executive Officer of whatever rank has the one most suitable for his duties.

9. The full- and half-pay of Naval Medical Officers is in accordance with the following scale :—Full pay: Inspector-General of Hospitals and Fleets—On promotion or under twenty-five years' service, £2 5s.; ditto or above twenty-five years' service, £2 6s.; and for each additional year of service 1s. a day more until the maximum is reached—namely, £2 10s. Deputy Inspector-General of Hospitals and Fleets—On promotion or under twenty-two years' service, £1 11s.; ditto or above twenty-two years' service, £1 12s.; and for each additional year of service 1s. a day more until the maximum is reached—namely, £1 18s. Staff Surgeon—On promotion or under twenty years' service, £1 3s.; ditto or above twenty years' service, £1 4s.; and for each additional year of service 1s. a day more until the maximum is reached—namely, £1 10s. Surgeon—On promotion or under fourteen years' service, 18s.; ditto or under seventeen years' service, £1; and for each additional year of service 1s. a day more until the maximum is reached—namely, £1 2s. Assistant-Surgeon—Under five years' service,(h) 11s.; under eight years' service, 12s. 6d.; under eleven years' service, 14s.; under fourteen years' service, provided he passed his Examination for Surgeon while under ten years' service, 15s. 6d.; above fourteen years' service, ditto, 17s. Half-pay: Assistant-Surgeon—Under five years' service, 6s.; under eight years' service, 8s.; under eleven years' service, 10s.; above eleven years' service, provided he passed his Examination for Surgeon while under ten years' service, 11s. Surgeon—On promotion or under fourteen years' service, 11s.; ditto or under seventeen years' service, 13s.; ditto or above seventeen years' service, 14s. Staff Surgeon—On promotion or under twenty years' service, 16s.; ditto or above twenty years' service, 16s. 6d.; and for each additional year of service 6d. a day more until the maximum is reached—namely, 18s. 6d. Deputy Inspector-General of Hospitals and Fleets—On promotion or under twenty-two years' service, £1 1s.; ditto or above twenty-two years' service, £1 2s.; and for each additional year of service 1s. a day more until the maximum is reached—namely, £1 7s. Inspector-General of Hospitals and Fleets—On promotion or under twenty-five years' service, £1 11s.; ditto or above twenty-five years' service, £1 12s.; and for each additional year of service 1s. a day more until the maximum is reached—namely, £1 18s.

10. Retirement is provided for according to age and service, under special regulations.

11. My Lords will consider, and publish hereafter, the manner in which it may be found most advisable to assist Naval Medical Officers in their Professional education after examination and admission into the Navy.

(h) Except during Session at Netley (see Regulations).

RULES AND REGULATIONS

OF THE

EXAMINING MEDICAL BODIES IN SCOTLAND.

UNIVERSITY OF EDINBURGH.

THE Session 1871-72 will be publicly opened on Wednesday, November 1, 1871, when an address will be delivered by the Principal.

GRADUATION IN MEDICINE—STATUTES OF THE UNIVERSITY OF EDINBURGH RELATIVE TO GRADUATION IN MEDICINE AND SURGERY.

Three Medical Degrees are conferred by the University of Edinburgh—viz., Bachelor of Medicine (M.B.), Master in Surgery (B.M.), and Doctor of Medicine (M.D.). The Degree of Master in Surgery is not conferred on any person who does not also at the same time obtain the Degree of Bachelor of Medicine.

I. The preliminary branches of extra-Professional education are—English, Latin, Arithmetic, the Elements of Mathematics, and the Elements of Mechanics; and the proficiency of Students in these branches is ascertained by examination prior to the commencement of their Medical study.

II. No Candidate is admitted to a Professional Examination who has not passed a satisfactory Examination on at least two of the following subjects (in addition to the subjects mentioned above) : — Greek, French, German, Higher Mathematics, Natural Philosophy, Logic, Moral Philosophy; and the Examination on these latter subjects also takes place before the Candidate has entered on his Medical Curriculum.

III. A Degree in Arts (not being an Honorary Degree) in any one of the Universities of England, Scotland, or Ireland, or in any Colonial or Foreign University, specially recognised for this purpose by the University Court, exempts from all preliminary examination; and an Examination in Arts by any corporate body whose Examination has been recognised as qualifying for entrance on Medical study by resolution of the General Medical Council of the United Kingdom, provided the said Examination by the said corporate body shall be also approved by the University Court, shall exempt from preliminary Examination in Arts, on all subjects comprised in the said Examination of the said corporate body.

IV. No one is admitted to the Degree of Bachelor of Medicine or Master in Surgery who has not been engaged in Medical and Surgical study for four years — the Medical Session for each year, or *Annus Medicus*, being constituted by at least two Courses of not less than one hundred lectures each, or by one such Course, and two Courses of not less than fifty lectures each; with the exception of the Clinical Courses, in which lectures are to be given at least twice a week during the prescribed periods.

V. Every Candidate for the Degrees of M.B. and C.M. must give sufficient evidence by Certificates—

1. That he has studied each of the following departments of Medical Science—viz., Anatomy, Chemistry, Materia Medica, Institutes of Medicine or Physiology, Practice of Medicine, Surgery, Midwifery and the Diseases peculiar to Women and Children (two Courses of Midwifery of three months each being reckoned equivalent to a six months' Course, provided different departments of Obstetric Medicine be taught in each of the Courses), General Pathology (or, in Schools where there is no such Course, a three months' Course of Lectures on Morbid Anatomy, together with a supplemental Course of Practice of Medicine, or Clinical Medicine), during Courses including not less than one hundred lectures; Practical Anatomy, a Course of the same duration as those of not less than one hundred lectures above prescribed; Practical Chemistry, three months; Practical Midwifery, three months at a Midwifery Hospital, or a Certificate of attendance on six cases from a registered Medical Practitioner; Clinical Medicine, Clinical Surgery, Courses of the same duration as those of not less than one hundred lectures above prescribed, or two Courses of three months, lectures being given at least twice a week; Medical Jurisprudence, Botany, Natural History, including Zoology, during Courses including not less than fifty lectures.(a)

2. That he has attended for at least two years the Medical and Surgical Practice of a General Hospital which accommodates not fewer than eighty patients, and possesses a distinct staff of Physicians and Surgeons.

3. That he has been engaged for at least three months, by apprenticeship or otherwise, in compounding and dispensing drugs at the Laboratory of an Hospital, Dispensary, Member of a Surgical College or Faculty, Licentiate of the London or Dublin Society of Apothecaries, or a Member of the Pharmaceutical Society of Great Britain.

4. That he has attended for at least six months, by apprenticeship or otherwise, the out-practice of an Hospital, or the practice of a Dispensary, Physician, Surgeon, or Member of the London or Dublin Society of Apothecaries.(b)

VI. The studies of Candidates for the Degrees of Bachelor of Medicine and Master in Surgery are subject to the following Regulations :—

1. One of the four years of Medical and Surgical study required by Section IV. must be in the University of Edinburgh.

2. Another of such four years of Medical and Surgical study must be either in the University of Edinburgh or in some other University entitled to give the Degree of Doctor of Medicine.

3. Attendance during at least six winter months on the Medical or Surgical Practice of a General Hospital which accommodates at least eighty patients, and during the same period on a Course of Practical Anatomy, may be reckoned as one of such four years, and to that extent shall be held equivalent to one year's attendance on Courses of Lectures as above prescribed.

4. One year's attendance on the Lectures of Teachers of Medicine in the Hospital Schools of London, or in the School of the College of Surgeons in Dublin, or of such Teachers of Medicine in Edinburgh, or elsewhere, as shall from time to time be recognised by the University Court, may be reckoned as one of such four years, and to that extent shall be held as attendance on Courses of Lectures, as above prescribed.

5. Candidates may, to the extent of four of the Departments of Medical Study required by Section V., Sub-section 1, attend, in such year or years of their Medical and Surgical studies as may be most convenient to them, the Lectures of the Teachers of Medicine specified in the foregoing Subsection 4.

6. All Candidates, not Students of the University, availing

(a) Certificates of attendance on Practical Anatomy must express not only the number of months engaged in dissection, but the names of the parts dissected, and the carefulness with which the dissections have been made.

(b) *See* Note as to Vaccination appended to Section XX.

themselves of the permission to attend the Lectures of Extra-Academical Teachers in Edinburgh, must at the commencement of each year of such attendance enrol their names in a book to be kept by the University for that purpose, paying a Fee of the same amount as the Matriculation Fee paid by Students of the University, and having, in respect of such payment, a right to the use of the Library of the University.

7. The Fee for attendance on the Lectures of an Extra-Academical Teacher in Edinburgh, with a view to Graduation, must be of the same amount as that exigible by Medical Professors in the University.(c)

8. No Teacher is recognised who is at the same time a teacher of more than one of the prescribed branches of study, except in those cases where Professors in the University are at liberty to teach two branches.

VII. Every Candidate must deliver, before the 31st day of March of the year in which he proposes to graduate, to the Dean of the Faculty of Medicine—

1. A declaration in his own handwriting, that he has completed his twenty-first year,(d) and that he will not be, on the day of Graduation, under articles of apprenticeship to any Surgeon or other master.

2. A statement of his studies, as well in Literature and Philosophy as in Medicine, accompanied with proper Certificates.

VIII. Each Candidate is examined, both in writing and *viva voce*—*First*, on Chemistry, Botany, and Natural History; *Secondly*, on Anatomy, Institutes of Medicine, Materia Medica,(e) and Pathology; *Thirdly*, on Surgery, Practice of Medicine, Midwifery, and Medical Jurisprudence; *Fourthly*, Clinically on Medicine and on Surgery in an Hospital. The Examinations on Anatomy, Chemistry, Institutes of Medicine, Botany, and Natural History are conducted, as far as possible, by Demonstrations of objects placed before the Candidates.

IX. Students who profess themselves ready to submit to an Examination on the first division of these subjects, at the end of their second year, may be admitted to Examination at that time.(f)

X. Students who have passed their Examination on the first division of these subjects may be admitted to Examination on the second division at the end of their third year.

XI. The Examination on the third and fourth divisions cannot take place until the Candidate has completed his fourth *Annus Medicus*.

XII. Candidates may, if they choose, be admitted to Examination on the first two of these divisions at the end of their third year, or to the four Examinations at the end of their fourth year.

XIII. If any Candidate at these Examinations be found unqualified, he cannot be again admitted to Examination unless he has studied, during another year, two of the prescribed subjects, either in the University or in some other School of Medicine.

XIV., XV., XVI., * * * * *

XVII. The Degree of Doctor of Medicine may be conferred on any Candidate who has obtained the Degree of Bachelor of Medicine, and is of the age of 24 years, and has been engaged, subsequently to his having received the Degree of Bachelor of Medicine, for at least two years in attendance on an Hospital, or in the Military or Naval Medical Services, or in Medical and Surgical Practice.(g) Provided always that the Degree of Doctor of Medicine shall not be conferred on any person unless he be a Graduate in Arts of one of the Universities of England, Scotland, or Ireland, or of such other Universities as are above specified, or unless he shall, before or at the time of his obtaining the Degree of Bachelor of Medicine, or within three years thereafter, have passed a satisfactory Examination in Greek, and in Logic or Moral Philosophy, and in one at least of the following subjects—namely, French, German, Higher Mathematics, and Natural Philosophy. And provided also that the Candidate for the Degree of Doctor of Medicine shall, on or before the 31st day of March in the year in which he proposes to graduate, submit to the Medical Faculty a Thesis, certified by him to have been composed by himself, and which shall be approved by the Faculty, on any branch of knowledge comprised in the Professional Examinations for the Degree of Bachelor of Medicine, which he may have made a subject of study after having received that Degree.(h)

XVIII. The Medical Examiners for all Candidates for Graduation in Medicine are the Professors in the Faculty of Medicine, and, in addition, three persons appointed annually by the University Court.

XIX. The provisions of these Statutes came into operation on the 4th of February, 1861.

XX. Persons who began their Medical studies before the 4th of February, 1861, are entitled to graduate under the system in force before or after that date, according as they may comply with the regulations in force in the University before or after that date.

Note.—In conformity with the desire expressed by the Privy Council, it has been resolved that any Candidate for a Degree in Medicine must produce, at his final Examination, a Certificate from a Dispensary or other Public Institution where Vaccination is practised, attesting that he has been practically instructed in the operation, and is acquainted with the appearances which follow its performance.

Notice to Candidates for Graduation in Medicine.—Candidates who commenced their Medical studies by attendance on qualifying classes before February 4, 1861, are entitled to appear for examination for the Degree of Doctor of Medicine, after four years' study, on completing their twenty-first year, and without having taken the Degree of Bachelor of Medicine. They are also exempted from the Preliminary Examinations mentioned in Sections I. and II., and require only to undergo an Examination in Latin. They are also exempted from attendance on Practical Chemistry and Practical Midwifery, and require only three months of Clinical Surgery, and eighteen months of Hospital attendance.

An *Annus Medicus* is constituted by at least two Winter Courses of one hundred lectures each, or by one such Course, and two Summer Courses, of fifty lectures each, all being duly certified.

Four *Anni Medici* are required for Graduates in Medicine. Two at least of these years must be passed at a University which grants Degrees in Medicine, one of the two being at Edinburgh.

One or two of the *Anni Medici* may be taken at qualified extra-Academical Schools, in the manner stated in the succeeding paragraph:

In University College, in King's College, in the Hospital Schools of London, in the extra-Academical School of Edinburgh, in the School of the College of Surgeons of Dublin, and in certain Medical Schools where at least two lecturers have been qualified by the University Court, a Candidate may make *two Anni Medici*—one of which must be constituted by Hospital attendance and Practical Anatomy, and the other by at least two Courses of one hundred lectures, or one such Course, and two Courses of fifty lectures. The classes at these Schools only qualify to the extent of four, and one of the four must be Practical Anatomy.

In Provincial Schools where there are no lecturers qualified by the University Court, a Candidate can make *one Annus Medicus only*, and this is constituted by attendance on a qualified Hospital, along with a Course of Practical Anatomy.

The Edinburgh extra-Academical Classes only qualify if the fee paid at the commencement of the Session is the same as that paid to the Professors in the University.

All classes must be taken at a University, except *four* selected by the Candidate. The Classes so selected must be qualifying Courses, as regards the subjects and extent.

Three months' Courses of Materia Medica, Pathology, and Midwifery do not qualify. For each of these subjects *one* Course of one hundred lectures is required.

No teacher is qualified who lectures on more than one of the required subjects, as specified in Section VI. 8.

Every Candidate for a Degree in Medicine must be a Matriculated Student of the University for the year in which he appears for Examination or Graduation.

The dates of the Examinations for 1871-72 have been fixed as follows; and Candidates for each of them are required to assemble in the upper Library Hall a quarter of an hour before the time fixed for examination:—Preliminary Examinations in Arts, October 17 and 18, 1871; March 20 and 21, 1872, at 10.30 a.m. each day. First Professional Examination, October 24, 1871; April 1, 1872, at 11 o'clock each day. Second Professional Examination, April 8 and 9, 1872, at 12 o'clock. Final Professional Examination in June, 1872. Graduation, August 1, 10 o'clock.

The names of Candidates for the foregoing Examinations must be given in, and the fees paid, etc., as follows, viz.:—For the Final Examination in June, 1872, on or before May 20; for Graduation on August 1, on or before July 15; for Second Professional Examination in April, 1872, on or before March 29; for Preliminary Examination in October, 1871, on or before October 7; for Preliminary Examination in March, 1872, on or before March 10; for First Professional Examination in October, 1871, on or before October 14; for First Professional Examination in April, 1872, on or before March 23; Theses for M.D., on or before April 30, 1872. Specimens of the Examination Papers for 1870-71 are given in the Calendar.

The Preliminary Examinations in Arts accepted by the General Council are recognised *pro tanto*—that is to say, they exempt from Examination in Arts on the subjects comprised in them, in so far as the Examinations are of the same extent as those required by this University. Any subjects required by the Statutes, and not included in these Examinations, or not carried out to the requisite extent, must be passed at the University. In all cases Candidates must produce Certificates of having passed such Examinations, with an official notice of the subjects in which they have passed.

The fee for Examination must be deposited with the Registrar at least ten days before the day of Examination. In the event of the Candidate not passing, the fee is not returned, but he may appear at one subsequent Examination without paying an extra fee, and at any future Examination

(e) The Fee must be paid at the commencement of the Course.
(d) Or that he will have done so on or before the day of Graduation.
(e) Including Practical Pharmacy.
(f) Students who commence their Medical Studies in May may appear for this Examination on the second October after the commencement of their studies, provided they have complete Certificates for two qualifying Summer Sessions and one qualifying Winter Session, each Session being constituted by attendance on at least two classes.
(g) Certificates for at least two years' practice must be produced on or before July 15 of the year in which the Candidate proposes to graduate.
(h) The Candidate must lodge his Thesis with the Dean on or before April 30 of the year in which he proposes to graduate.

on paying one-half of the fee. The fees are—For the Preliminary Examination, each Non-Matriculated Student pays a fee of 10s. (Candidates who paid the fee in March may obtain admission to the Examination in October without further payment); for the Degree of M.B., three Examinations £5 5s. each, £15 15s.; for the Degree of C.M., £5 5s. additional; or the Degree of M.D., £5 5s. additional to that for M.B., exclusive of £10 Government stamp. The Graduation Fees must all be paid on or before July 15 in the year in which Candidates propose to graduate.

Note.—Total fees and stamp for graduating as M.D. only, by Regulations, for Students who commenced their Medical education before February, 1861, £25.

Candidates, settled for a period of years in foreign parts, who have complied with all the regulations for the Degree of M.D. (under the new Statutes), but who cannot appear personally to receive the Degree, may, on satisfying the Senatus to that effect by production of sufficient official testimonials, have the Degree conferred on them in absence.

Students are recommended to commence their Medical studies by attending a Summer Session.

MEDICAL DEGREES.—PRELIMINARY EXAMINATION IN ARTS, PROGRAMME FOR 1871-72.

I. In conformity with Section I. of the Statutes, Examinations on the Preliminary Branches of extra-Professional Education will take place on Tuesday and Wednesday, October 17 and 18, 1871, and on Tuesday and Wednesday, March 20 and 21, 1872, at 10.30 o'clock a.m. Examination on Tuesdays—English, Arithmetic, Mechanics, Greek, Higher Mathematics, and German. Examination on Wednesdays—Latin, Elements of Mathematics, Natural Philosophy, French, Logic, and Moral Philosophy. 1. English.—A portion of an English author must be written to dictation; the grammatical construction of one or two sentences must be explained; the grammatical errors in a sentence ungrammatically composed must be pointed out and their nature explained, and the derivation and definition of a few English words in common use must be given. (*See* Bain's "English Grammar," and Angus "On the English Language.") 2. Latin.—Ninth Æneid of Virgil, an easy passage from a Latin prose author, and a single passage of English (translated from a Latin author) to be retranslated into Latin, the more difficult Latin words being given. 3. Arithmetic.—The Common Rules, including Vulgar and Decimal Fractions. 4. Elements of Mathematics.—Euclid, Books i., ii., and iii., and the ordinary rules of Algebra, including Simple Equations. A knowledge of Euclid alone will not be sufficient. 5. Elements of Mechanics.—Elementary Mechanics and Hydrostatics.

II. At the same dates, Examinations will take place in conformity with Section II. of the said Statutes, which enacts that no Candidate shall be admitted to a Professional Examination who has not passed a satisfactory Examination on at least two of the following subjects (in addition to the subjects mentioned above):—1. Greek.—Fourth Book of Xenophon's Anabasis. 2. French.—Voltaire's "Henriade," chants i. to vi. inclusive. 3. German.—Schiller's "Death of Wallenstein." 4. Higher Mathematics.—Euclid, Books i. to vi.—Algebra, Trigonometry, and Conic Sections. 5. Natural Philosophy.—Text-book recommended—Balfour Stewart's "Elementary Physics." 6. Logic.—Terms, Propositions, Syllogisms, and Fallacies. Induction. (*See* Fowler's "Elements of Deductive Logic." 7. Moral Philosophy.—Moral Faculty. Desires and Emotions. The Will. Moral Obligations. Practical Ethics. (*See* Stewart's "Outlines of Moral Philosophy," Part II. (M'Cosh's edition), with M'Cosh's Notes.) As regards Latin, Greek, French, and German, mere translation is not sufficient. Candidates must answer questions in grammar, and must be prepared to translate a passage of English into these languages.

III. In Section XVII. of the said Statutes, it is enacted that the Degree of Doctor of Medicine shall not be conferred on any person unless he be a Graduate in Arts, or unless he shall, before or at the time of his obtaining the Degree of Bachelor of Medicine, or within three years thereafter, have passed a satisfactory Examination on *three* of the subjects mentioned in Section II. Two of these must be Greek and Logic or Moral Philosophy, and the *third* may be any one of the following subjects—namely, French, German, Higher Mathematics, Natural Philosophy.

Examinations of the same extent, and on the same subjects, at other British Universities granting the Degree of M.D., will exempt from these Preliminary Examinations. Certificates of having passed such Examinations must be produced, with an official notice of the subjects on which the Candidate has passed an Examination.

Students who come under the old Statutes, in consequence of having commenced their Medical Curriculum by attendance on Classes before February 4, 1861, will be examined in Latin on Wednesday, October 18, 1871, and Wednesday, March 21, 1872, at 10.30 a.m. For nature of Examination, see Section I. of this programme.

UNIVERSITY OF ABERDEEN.

The regulations for granting Medical Degrees are framed in conformity with an Ordinance of the Universities' (Scotland) Commissioners, dated March 16, 1861, and approved by her Majesty in Council.

The following are the Degrees in Medicine granted by this University—namely, Bachelor of Medicine (M.B.), Master in Surgery (C.M.), and Doctor of Medicine (M.D.).

The Preliminary Examination and Professional Curriculum and Examination for the Degrees of M.B., C.M., and M.D., being in conformity with the Ordinances of the Scotch Universities' Commissioners, are nearly the same as those of the Universities of Edinburgh, Glasgow, and St. Andrews.

The studies of Candidates for the Degrees of Bachelor of Medicine and Master in Surgery are subject to these regulations:—

One at least of the four years of Medical and Surgical study must be in the University of Aberdeen.

Another of such four years must be either in this University or in some other University entitled to give the Degree of Doctor of Medicine.

FEES FOR GRADUATION.

1. Each Candidate for the Degree of M.B. shall pay a fee of £5 5s. in respect of each of the three Professional Examinations.

2. If the Candidate desires to be admitted to the Degree of Bachelor of Medicine only, he shall not, on admission thereto, be required to pay any further fee in addition to the £15 15s. so paid by him; but if he desires to be admitted to the Degree of Master in Surgery also, he shall, on being admitted to such Degree, pay a further fee of £5 5s.

3. And every Candidate for the Degree of Doctor of Medicine shall pay, in addition to the fees paid by him for the Degree of Bachelor of Medicine, a fee of £5 5s., exclusive of any stamp duty which may for the time be exigible.

EXEMPTION FROM THE FOREGOING REGULATIONS.

Students who shall have begun their Medical studies before the first Tuesday of November, 1861, are entitled to appear for examination for the Degree of M.D. after four years' study, one of which must have been at the University of Aberdeen.

Further information may be obtained from the Dean of the Medical Faculty, Professor Macrobin, M.D.

UNIVERSITY OF ST. ANDREWS.

The regulations for granting Medical Degrees are framed in conformity with an Ordinance of the Universities' (Scotland) Commissioners; they therefore generally correspond with those of the Universities of Edinburgh, Aberdeen, and Glasgow.

The Degrees in Medicine granted by the University of St. Andrews are those of Bachelor of Medicine (M.B.), Master in Surgery (C.M.), and Doctor of Medicine (M.D.).

The Preliminary Examination and Professional Curriculum and Examinations for these Degrees are generally the same as those of the Universities of Edinburgh, Aberdeen, and Glasgow. The following regulations, however, for Candidates for the Degrees of Bachelor of Medicine and Master in Surgery present some difference:—

No one shall be received as a Candidate for the Degree of Bachelor of Medicine or Master in Surgery unless two years at least of his four years of Medical and Surgical Study shall have been in one or more of the following Universities and Colleges, viz.:—The University of St. Andrews; the University of Glasgow; the University of Aberdeen; the University of Edinburgh; the University of Oxford; the University of Cambridge; Trinity College, Dublin; Queen's College, Belfast; Queen's College, Cork; and Queen's College, Galway.

The remaining years of Medical and Surgical Study may be either in one or more of the Universities and Colleges above specified, or in the Hospital Schools of London, or in the School of the College of Surgeons in Dublin, or under such private teachers of Medicine as may from time to time receive recognition from the University Court.

Attendance on the Lectures of any private teacher in Edinburgh, Glasgow, or Aberdeen shall not be reckoned for graduation in St. Andrews, if the fee for such Lectures be of less amount than is charged for the like Course of Lectures in the University of Edinburgh, of Glasgow, or of Aberdeen, according as the teacher lectures in Edinburgh, Glasgow, or Aberdeen.

Every Candidate for the Degrees of Bachelor of Medicine and Master in Surgery shall be examined both in writing and *viva voce*—first, on Chemistry, Botany, Elementary Anatomy, and Materia Medica; secondly, on Advanced Anatomy, Zoology, with Comparative Anatomy, Physiology, and Surgery; and, thirdly, on Practice of Medicine, Clinical Medicine, Clinical Surgery, Midwifery, General Pathology, and Medical Jurisprudence.

FEES FOR GRADUATION.

For the Degree of Bachelor of Medicine five guineas in respect of each of the three divisions of the Examination on Professional subjects; and if the Candidate desires to be admitted to the Degree of Bachelor of Medicine only, he shall not, on admission thereto, be required to pay any further fee in addition to the fifteen guineas so paid by him; but if he desires to be admitted to the Degree of Master in Surgery also, he shall, on being admitted to such Degree, pay a further fee of five guineas; and every Candidate for the Degree of Doctor of Medicine, who has previously obtained the Degree of Bachelor of Medicine, shall pay, in addition to the fees paid by him as a Candidate for the Degree of Bachelor of Medicine, a fee of five guineas, exclusive of any stamp duty which may for the time be exigible.

N.B.—The Degree of Doctor of Medicine may be conferred by the University of St. Andrews on any registered Medical Practitioner above the age of 40 years, whose Professional position and experience are such as, in the estimation of the University, to entitle him to that Degree, and who shall, on examination, satisfy the Medical Examiners of the sufficiency of his Professional knowledge; provided always, that Degrees shall not be conferred under this Section to a greater number than ten in any one year. Fee 52*l.* 10s.

REGULATIONS REGARDING THE EXAMINATION OF REGISTERED MEDICAL PRACTITIONERS ABOVE THE AGE OF FORTY YEARS.

Candidates for Graduation are enrolled in order of application, provided they have complied with the undermentioned conditions. Candidates shall lodge with the Professor of Medicine the following Certificates and deposit:—

I. Certificate of Age.

II. Certificates from three Medical men, of such acknowledged reputation in the Profession, or of such standing in the Medical Schools, as shall satisfy the Senatus of the Professional position and experience of the Candidate.

III. A certain portion (viz., £10 10s.) of the Graduation Fees; which sum shall be forfeited should the Candidate fail to appear at the time appointed for examination, or should he fail to graduate.

IV. The Examination shall be conducted both in writing and *viva voce*, and shall include the following subjects:—(1) Materia Medica and General Therapeutics. (2) Medical Jurisprudence. (3) Practice of Medicine and Pathology. (4) Surgery. (5) Midwifery.

(As regards the last two subjects—viz., Surgery and Midwifery—a minute knowledge shall not be required from those who do not practise these branches of the Profession.)

UNIVERSITY OF GLASGOW.

Three Degrees in Medicine are granted, viz.:—Bachelor of Medicine (M.B.), Master in Surgery (C.M.), and Doctor of Medicine (M.D.). [The Preliminary Examination, Curriculum, and Professional Examinations for these Degrees, being in conformity with the Ordinance of the Scottish University Commissioners, are the same as for the Universities of Edinburgh, St. Andrews, and Aberdeen.]

Of the four years constituting the Curriculum, one at least shall have been passed in the University of Glasgow, and another either in that University or some other University entitled to give Degrees in Medicine.

These Statutes apply to all Candidates who commenced their Medical studies on or after October 1, 1861. Candidates who began their Medical studies before that date are entitled to obtain their Degrees according to the regulations existing at the time when they commenced their studies.

The annual term for conferring Medical and Surgical Degrees is the first day of May.

The fees for the Degrees are as follows:—For the Degree of M.B. (for each of three examinations, £5 5s.), £15 15s.; for that of C.M. (in addition to the fee for M.B.), £5 5s.; for the Degree of M.D. (in addition to the fee for M.B.), £5 5s.; and the Government stamp for the Diploma, &c., £10 3s.

The Preliminary Examinations of Medical Students in branches of General Education take place at the beginning and at the end of the Winter Session.

The regulations under which the above Degrees are granted, and the notices of the subjects of Examination, will be obtained by application to the Registrar of the University.

ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH.

ABSTRACT OF REGULATIONS FOR THE LICENCE.

1. No one can obtain the Licence of the College until he has completed the age of 21 years.

2. Every applicant for the Licence must produce satisfactory evidence that he has been engaged in the study of Medicine during a period of at least four years subsequently to his registration as a Medical Student, and that he has attended the following Courses at a University, or at some Medical School recognised by the College:—Anatomy, one Course, six months; Practical Anatomy, six months; Chemistry, one Course, six months; Practical Chemistry, three months; Materia Medica and Pharmacy, one Course, three months; Physiology or Institutes of Medicine, one Course, three months; Practice of Medicine, one Course, six months; Clinical Medicine, six months; Principles and Practice of Surgery, one Course, six months; Clinical Surgery, three months; Midwifery, one Course, three months; Medical Jurisprudence, one Course, three months; Pathological Anatomy, one Course, three months; or General Pathology, one Course, three months; Practical Pharmacy, three months.

The applicant must also produce evidence of having attended the practice of a public Hospital (containing not fewer than 80 beds) during a period of not less than twenty-four months, twelve of which must have been spent in attendance on the Medical wards. He must also have attended for six months the practice of a public Dispensary, or have acted for six months as Clinical Clerk or Dresser in an Hospital, or have been engaged for six months as Visiting Assistant to a Registered Practitioner.

The applicant must also have attended at least six cases of labour under the superintendence of a qualified Medical Practitioner, and must produce a Certificate to that effect.

Every applicant for the Licence, before being admitted to the final Examination, will be required to produce a Certificate that he he has studied Vaccination under a competent and recognised teacher; that he has himself performed the operation successfully under the teacher's inspection; that he is familiar with the different stages of the vaccine vesicle, and with the methods of preserving lymph; and that he is thoroughly informed in every necessary part of the subject.

3. Every applicant for the Licence must have passed the Preliminary Examination in Literature and Science before he can be admitted to the Professional Examination.

The Examination will embrace the following subjects:—1. English: Grammar and Composition. 2. Arithmetic, including Vulgar and Decimal Fractions; Algebra, including Simple Equations. 3. Geometry: First two Books of Euclid. 4. Latin: Translation into English, Cicero de Senectute et de Amicitia, *or* Horatii Carmina, Lib. II. and III.—Parsing; Translation from English into Latin, the Latin words being supplied. 5. One of the following subjects, at the option of the Candidate:—1. Greek: Herodotus' History, Book I., and Homer's Iliad, Book II. 2. French: Voltaire's Henriade. 3. German: Schiller's Wilhelm Tell. 4. Natural Philosophy, including Mechanics, Hydrostatics, and Pneumatics.

4. Masters and Bachelors of Arts of any British or Foreign University, whose Course of Study may from time to time be approved of by the College, will be exempted from the Preliminary Examination; also those who have passed the Examination of the National Educational Bodies, or of any of the Licensing Boards recognised by the Medical Act.

5. The Professional Examination will be divided into two parts, according to the following arrangements of subjects:—(1) Anatomy, Physiology, Chemistry; (2) Materia Medi and Pharmacy, Pathology, and Pathological Anatomy, Pra tice of Medicine, Midwifery, Medical Jurisprudence, Clinical Medicine, including the examination of patients, as well as of various morbid products. No Candidate will be admitted to the first examination until he has completed two, or to the second until he has completed four, years of Professional study. The examinations will be conducted partly *viva voce*, partly by written papers.

6. The following will be the periods of Examination up to October, 1872:—(1) Preliminary Examinations in Literature and Science—Saturday, October 21, 1871; Saturday, November 4, 1871; Saturday, April 20, 1872; Saturday, July 20, 1872. (2) First Professional Examinations—Wednesday, October 18, 1871; Wednesday, January 17, 1872; Wednesday, March 27, 1872; Wednesday, May 1, 1872; Wednesday, July 17, 1872; Wednesday, October 16, 1872. (3) The Second Professional Examinations will be held on the Thursdays following the First Professional.

7. Candidates for the Licence of the College, who already possess a qualification from a recognised licensing body, or who have passed the First Professional Examination before a qualifying body (provided it be as extensive as that required by this College), will be at once admitted to the second part of the examination.

8. Meetings for the examination of Candidates who already possess a qualification from a recognised licensing body, will be held on the first Wednesday of every month (with the exception of September and October), and, if necessary, on the following days. Candidates are required to communicate with the Secretary to the College not less than eight days before the date of the examination at which they propose to appear.

9. No Candidate is admissible to examination who has been rejected by any licensing board within three months previous to his examination.

10. The fee payable by a Licentiate is ten guineas. In the

event of a Candidate being unsuccessful at his examination, the sum of two guineas will be retained to defray expenses.

11. Candidates may be admitted to Special Examination, on days other than those appointed above, on bringing forward reasons satisfactory to the Council, and on paying an extra fee of five guineas. Should the Candidate be unsuccessful, the sum of eight guineas will be returned to him.

ROYAL COLLEGE OF SURGEONS OF EDINBURGH.

REGULATIONS TO BE OBSERVED BY CANDIDATES FOR THE DIPLOMA.

These are the same as those given below for the conjoined qualification in Medicine and Surgery conferred by the Colleges of Physicians and Surgeons, with the following exceptions in Professional education:—

No third Course of Medicine and no Course of Pathological Anatomy are required.

A Certificate of three months' instruction in Pathological Anatomy at the post-mortem room of a recognised Hospital will be required from Candidates commencing Professional Study after October 1, 1861.

The Regulations for the Preliminary Examination in General Education generally correspond with those to be observed by Candidates for the joint qualifications of the Royal Colleges of Physicians and Surgeons, Edinburgh.

PROFESSIONAL EXAMINATIONS FOR THE DIPLOMA OF THE COLLEGE.

The Regulations are generally the same as those for the Professional Examinations for the joint Diploma of the two Colleges, with the following exceptions:—

The sum of £4 must be paid to the Treasurer of the College for the First Examination, not later than 10 a.m. of the day preceding it. The sum will be considered as paid to account of the entire fee of £10 payable for the Diploma.

In the case of a Candidate being unsuccessful at this Examination, £2 will be returned to him, the remaining £2 being retained to meet the expenses of the Examination.

Registered Medical Practitioners, whose Degree or Licence in Medicine is dated prior to October 1, 1861, are exempt from the First Professional Examination. The Examinations under this Regulation may take place on the first and third Tuesday of each month.

§ 7. The Second Examination embraces Surgery and Surgical Anatomy; also Medicine, Midwifery, Materia Medica, and Medical Jurisprudence; and shall not take place before the termination of the Winter Session of the last year of Study.

Applications for Examination must be made to the Secretary not later than the Monday previous to the day of the First Examination.

Every Candidate must produce to the Secretary—(1) Satisfactory evidence of his having attained the age of 21 years; (2) the tickets and the Certificates of his classes; (3) the Certificate of his having passed the First Professional Examination; (4) a tabular statement (for which a printed form will be furnished by the officer) exhibiting the full amount of his Professional education, and distinguishing the Classes, Hospitals, and Dispensaries attended during each Session of his studies. If he have been an apprentice, he must also insert the name of his master, the date of his indenture, and the length of time for which he was bound. This statement, accurately filled up, must be attested by his signature, and will be preserved by the College as a record.

If the Candidate have been an Apprentice to a Fellow of the College, he must also produce his discharged indenture.

The remaining fee payable to the College (being £6), together with the receipt for the fee paid for the First Professional Examination, must be lodged not later than 10 a.m. of the day preceding the Examination day, in the hands of the Treasurer, who will certify this upon the Secretary's letter. The sum of £4 will be returned to unsuccessful Candidates.

Periods of Examination for the Diploma of the Royal College of Surgeons of Edinburgh, in the year 1871-72:—I. Preliminary Examinations in General Education; on Saturday, October 21, 1871; on Saturday, November 4, 1871; on Saturday, April 20, 1872; on Saturday, July 20, 1872. II. First Professional Examinations—on Tuesday, October 17, 1872; on Tuesday, January 16, 1872; on Tuesday, March 26, 1872; on Tuesday, April 23, 1872; on Tuesday, July 2, 1872; on Tuesday, July 16, 1872; On Tuesday, October 15, 1872. III. Second Professional Examinations. These will take place immediately after the conclusion of the First Professional Examinations, at each of the above-mentioned periods. They will generally be begun on the Thursday succeeding to the day of the First Examination, and in no case on any earlier day.

Certificates, etc., to be sent to Dr. Simson, Honorary Secretary, 3, Glenfinlas-street; as follows, viz.:—For First Examination; not later than the Saturday preceding it. For Second Examination; not later than the Tuesday preceding it. Money to be sent to Dr. Gairdner, Treasurer, 45, Northumberland-street; as follows:—For First and for Second Examinations, not later than 10 a.m. of the days preceding these Examinations, respectively. *Note.*—The price of the Diploma is £10; being, for First Examination £4, and for Second Examination, when the first has been paid for, £6.

THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS OF EDINBURGH.

The Royal College of Physicians of Edinburgh, and the Royal College of Surgeons of Edinburgh, while they still continue to give their Diplomas separately, under separate regulations, have made arrangements by which, after one series of Examinations, the Student may obtain the Diplomas of both Colleges.

The general principle of this joint Examination is, that it shall be conducted by a Board, in which each Body is represented in those branches which are common to both Medicine and Surgery; but that the College of Physicians shall take exclusive charge of the Examination in Medicine, and the College of Surgeons of the Examination in Surgery.

The object of the joint Examination is to give to Students facilities for obtaining from two separate Bodies, and at less expense, a Qualification in Medicine and a Qualification in Surgery.

Students passing that Examination successfully, will be enabled to register two Qualifications under the Medical Act,—Licentiate of the Royal College of Physicians of Edinburgh, and Licentiate of the Royal College of Surgeons of Edinburgh.

The arrangement for thus conferring a Double Qualification by the co-operation of the two Colleges is in conformity with Section XIX. of the Medical Act, and received the special sanction of the General Council of Medical Education and Registration, at a Meeting held on the 7th of August, 1859.

SCHOOLS OF MEDICINE.

1. Every Candidate must have followed his Course of Study in a *University*, or in an *Established School of Medicine*, as defined below, or in a *Provincial School* specially recognised by the Colleges of Physicians and Surgeons of that division of the United Kingdom in which it is situate.

2. Under the title *Established School of Medicine* are comprehended the Medical Schools of those cities of Great Britain and Ireland in which Diplomas in Medicine and Surgery are granted, and such Colonial and Foreign Schools as are similarly circumstanced in the countries in which they exist.

PROFESSIONAL EDUCATION.

1. Candidates commencing Professional Study after September 16, 1866, must have been engaged during four years after the Examination in General Education, in Professional Study, which shall include not less than four Winter Sessions', or three Winter and two Summer Sessions' attendance at a recognised Medical School.(a)

2. The Candidate must produce certificates of having attended the following separate and distinct Courses of Lectures:—

Anatomy, Two Courses,(b) Six Months each; Practical Anatomy, Twelve Months. Or, in the option of the Candidate, Anatomy, One Course, Six Months; Practical Anatomy, Eighteen Months. Chemistry, One Course, Six Months. Practical or Analytical Chemistry, One Course, Three Months. Materia Medica, One Course, Three Months. Physiology, not less than Fifty Lectures.(c) Practice of Medicine, One Course, Six Months. Clinical Medicine, Six Months.(d) Medicine—a Third Course, which may either be Practice of Medicine or Clinical Medicine at the option of the Student, One Course,

(a) Candidates commencing Study prior to the above date, will be admitted to Examination after four Winter Sessions', or three Winter and two Summer Sessions' attendance on Classes at a regular Medical School.

(b) The two Courses must not be attended in the same Session.

(c) In those Schools of England and Ireland in which two separate Courses of Lectures are delivered at separate hours, one on Anatomy, the other on Anatomy and Physiology, the former of these Courses will be received as a Course of Anatomy, and the other as a Course of Physiology.

(d) *See* Note (d) at foot of next page.

Six months.(d) Principles and Practice of Surgery, One Course, Six Months. Clinical Surgery, One Course, Six Months.(d) Surgery—a Third Course, which may either be Principles and Practice of Surgery or Clinical Surgery at the option of the Student, One Course, Six Months.(d) Midwifery and the Diseases of Women and Children, One Course, Three Months. Medical Jurisprudence, One Course, Three Months. Pathological Anatomy, One Course, Three Months. (e) The Six Months' Courses delivered in Scotland must consist of not fewer than one hundred Lectures, with the exception of Clinical Medicine and Clinical Surgery. The Three Months' Courses must consist of not fewer than fifty Lectures.

3. The Candidate must also produce the following Certificates:—(*a.*) Of having attended Six Cases of Labour under the superintendence of the Practitioner who signs the Certificate, who must be a Registered Medical Practitioner. (*b.*) Of having attended, for three months, instruction in Practical Pharmacy. The Certificate to be signed by the Teacher, who must be a member of the Pharmaceutical Society of Great Britain, of a Chemist and Druggist recognised by either College, on special application, or the Superintendent of the Laboratory of a Public Hospital or Dispensary, or a Registered Practitioner who dispenses medicines to his patients. (*c.*) Of having attended, for twenty-four months, a Public General Hospital containing, on an average, at least eighty patients. (*d.*) Of having attended, for six months, the Practice of a Public Dispensary specially recognised by either College; or of having been engaged for six months as visiting Assistant to a Registered Practitioner. (*e.*) Of having been instructed in Vaccination. The Certificate to be signed by the Teacher, who must be a Registered Practitioner.(f)

4. The following Order of Study is recommended as a guide to the Student, though not enjoined:—First Year: Anatomy, Practical Anatomy, Chemistry, Practical or Analytical Chemistry, Hospital. Second Year. Anatomy, Practical Anatomy, Physiology, Surgery, Materia Medica (the last either in this or the Third Year), Hospital. Third Year: Practice of Medicine Clinical Surgery, Practical Anatomy, Practical Pharmacy, Clinical Medicine, Pathological Anatomy, Hospital. Fourth Year: Surgery or Clinical Surgery, Midwifery and the Diseases of Women and Children, Practice of Medicine or Clinical Medicine, Medical Jurisprudence, Practical Midwifery, Hospital.

5. It is strongly recommended to Students to avail themselves of any opportunities which they may possess of attending Lectures on Ophthalmic and Mental Disases, also on Natural History and Comparative Anatomy; and of obtaining practical instruction in the use of the Microscope, in addition to the Courses of Instruction which are absolutely required.

PRELIMINARY EXAMINATION IN GENERAL EDUCATION.

1. All Students who intend becoming Candidates for the Diplomas of the Colleges must have passed the complete Examination in General Education, and have had their names inscribed in the Register of Medical Students instituted by the General Medical Council, at the commencement of their Professional Studies.

2. The following will be the Preliminary Examination in General Education for the Double Qualification in Medicine and in Surgery conferred conjointly by the Royal Colleges of Physicians and Surgeons, and also for the separate diploma of each College, for 1871-72:—1. English Language, including Grammar and Composition. 2. Arithmetic, including Vulgar and Decimal Fractions. 3. Algebra, including simple Equations. 4. Geometry: First Two Books of Euclid. 5. Latin: Translation from one of the two following Books at the option of the Candidate—viz., Cicero de Senectute et de Amicitia, *or* Horatii Carmina, Lib. II. et III.; and of an easy passage from a Book not prescribed; Exercises in Parsing, and in rendering English correctly into Latin, the Latin words being supplied. 6. One of the following subjects at the option of the Candidate:—(1.) Greek: Herodotus' History, Book I., and Homer's Iliad, Book II. (2.) French: Voltaire's Henriade. (3.) German: Schiller's Wilhelm Tell. (4.) Natural Philosophy, including Mechanics, Hydrostatics, and Pneumatics. N.B.—In Greek, French, and German, parsing of words from the passages given to be translated will be required; also translation of short sentences from English into the respective languages.

3. Testimonials of proficiency granted by certain Educational Bodies will be accepted as sufficient evidence of General Education, and will exempt from the Preliminary Examination.

4. The Preliminary Examinations shall take place at stated periods, and shall be conducted by a special Board of Examiners in Arts, to be chosen from time to time by the Royal College of Physicians of Edinburgh and the Royal College of Surgeons of Edinburgh.

5. Students who intend to undergo the Preliminary Examination shall give in their names, addresses, and places of birth to the Officer of either College, not later than three days before the day of Examination, and shall pay a fee of 10s., not to be returned in case of rejection, but will be admissible to re-examination at a future period without paying another fee.

6. Candidates, the commencement of whose Professional Studies was prior to September 17, 1866, may pass the Preliminary Examination in General Education at any of the periods previous to the first Professional Examination, but are recommended to do so at the earliest possible period. Candidates under this Regulation who have not passed a Preliminary Examination in General Education, will be admitted to a special Examination in General Education previously to their first Professional Examination. For this they shall pay a fee of £1.

PROFESSIONAL EXAMINATIONS.

1. Candidates for the Double Qualifications shall be subjected to two Professional Examinations, to be conducted at separate times, partly in writing and partly orally.

2. Opportunities for both Examinations will be presented six times in each year. On each of these occasions the Candidates shall assemble for the purpose of writing answers to the questions proposed. The oral Examinations will be conducted on the days immediately succeeding.

3. Unsuccessful Candidates at either the First or Second Examination shall be remitted to their Studies for a period to be determined by the judgment of the Examiners, but not in any case less than three months.

4. The First Examination shall embrace Anatomy, Physiology, and Chemistry, and shall take place not sooner than the end of the second Winter Session.

5. Candidates who desire to pass the First Professional Examination must apply to the Inspector of Certificates on or before the Saturday preceding the day of Examination,(g) and must produce Certificates of attendance in regard to all those of the required Courses of Lectures which have reference to the subjects of that Examination. They must also produce a Certificate of having passed the Preliminary Examination.

6. The sum of £6 must be paid to the Inspector of Certificates for this Examination, not later than 10 a.m of the day preceding it. This sum will be considered as paid to account of the entire fee of £16 payable for the two Diplomas.

7. In the case of a Candidate being unsuccessful at this Examination, £4 will be returned to him; the remaining £2 being retained to meet the expense of Examination.

8. The Second Examination shall embrace Medicine, Surgery and Surgical Anatomy, Midwifery, Pathological Anatomy, Materia Medica and Pharmacy, and Medical Jurisprudence; and shall not take place before the termination of the Winter Session of the last year of study. In the case of Candidates who began their course of study after September 16, 1866, it will not take place till four years after the Examination on General Education.

9. Applications for Examination must be made to the Inspector of Certificates not later than the Tuesday previous to the day of Examination.(g)

10. Every Candidate must produce to the Inspector—1st. Satisfactory evidence of his having attained the age of 21 years; 2nd. A Certificate of his having passed the Preliminary Examination, unless this Certificate have already been seen by the Inspector of the Colleges; 3rd. A Certificate of his registration in the books of the General Medical Council; 4th. A Certificate of his having passed the First Professional Examination; 5th. The Certificates of his classes, and the other Certificates required; and 6th. A tabular statement (for which a printed form will be furnished by the Inspector), exhibiting the full amount of his Professional education, and distinguishing the Classes, Hospitals, and Dispensaries attended

(d) Two Courses of Clinical Medicine, of three months each, if not simultaneous, will be held equivalent to one Course of six months. They must be attended during the period of attendance at the Hospital where they are delivered. The same rules will apply to Clinical Surgery.

(e) A Certificate of attendance on the Post-mortem Examinations at a General Hospital will be accepted in lieu of this Course

(f) By a Regulation of the Privy Council, of date December 1, 1859, no one can be appointed as a contractor for Vaccination under the English Poor-law who does not produce a certificate of proficiency in Vaccination from a person authorised by the Privy Council to grant the same.

(g) Candidates at a distance are requested to send their Certificates much earlier, so as to give sufficient time for the exchange of one or two explanatory letters; as much disappointment has been occasioned by the discovery of defects in their Course of Study when it was too late to rectify them by the production of documents.

during each Session of his Studies. The tabular statement, accurately filled up, must be attested by his signature, and will be preserved by the Colleges as a record.

11. The fee payable for this Examination, which shall be £10, must be lodged with the Inspector not later than 10 a.m. of the day preceding the Examination day.

12. On the production of the above documents, and after receiving the fees, the Inspector shall give the Candidate a letter authorising the Examiners to take him on trial.

13. In case of a Candidate being unsuccessful at the Second Examination, £8 will be returned to him; the remaining £2 being retained to meet the expense of the Examination.

14. Candidates who have passed the First Professional Examination in Anatomy, Physiology, and Chemistry, at any of the Licensing Boards recognised by the Medical Act, will be admissible to the Second Professional Examination, on producing Certificates of the whole Course of Study prescribed, and of having passed their Preliminary and First Professional Examinations. If any of the three subjects of the First Examination have been omitted, such Candidates will have to undergo an Examination on the omitted subjects; and none of the subjects will be omitted at the Second Examination, even if some of them should have formed part of the First Examination by another Board. The fee payable by such Candidates is £16, and unsuccessful Candidates will receive back £14.

15. In addition to the Written and Oral Examinations, all Candidates shall be subjected to a Practical Clinical Examination in Medicine and Surgery, which shall include the Examination of Patients, Physical Diagnosis, the Use of the Microscope, Surgical Appliances, Bandages, &c.

16. Candidates desirous of Special Examinations on other days than those fixed by the Regulations, must prepare a case to be submitted for the consideration of the authorities of the College, with evidence to show why it was and is impossible for them to avail themselves of the Ordinary Examinations past and future. They must *at the same time* produce Certificates of the whole of the prescribed Course of Study and of the Preliminary Examination, and state the earliest and the latest days within which they can present themselves. It is very desirable that all such Candidates, and especially those who are at a distance from Edinburgh, should present their applications as long beforehand as possible.

The fees for Special Examinations are as follows:—£28 for First and Second Examinations, of which £22 will be returned to Candidates remitted on the First Examination, and £10 to Candidates successful in the First, but unsuccessful in the Second Examination. £25 for Second Examiuation, when the Candidate has passed the First under the conditions of Section 14. Of this £16 will be returned to the Candidate if unsuccessful. £19 for Second Examination, when the Candidate has passed the First before the Examiners of the Colleges. Of this £10 will be returned to the Candidate if unsuccessful.

17. No Candidate shall be admissible to Examination who has been rejected by any other Licensing Board within the three months preceding his Examination.

I. *Preliminary Examinations in General Education.*—On Saturday, October 21, 1871; on Saturday, November 4, 1871; on Saturday, April 20, 1872; on Saturday, July 20, 1872.

II. *First Professional Examinations.*—On Tuesday, October 24, 1871; on Tuesday, January 23, 1872; on Tuesday, April 2, 1872; on Tuesday, April 30, 1872; on Tuesday, July 9, 1872; on Tuesday, July 23, 1872; on Tuesday, October 22, 1872.

III. *Second Professional Examinations.*—These will take place immediately after the conclusion of the First Professional Examination, at each of the above-mentioned periods. In no case will they be begun on an earlier day than the Thursday of any period, nor will they usually be later than that day.

FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.

ABSTRACT OF REGULATIONS FOR THE LICENCE, 1871-72.

Course of Study.—(1.) Anatomy, two courses, six months each. (2.) Practical Anatomy, twelve months. (3.) Chemistry, one course, six months. (4.) Practical or Analytical Chemistry, one course, three months. (5.) Physiology, not less than fifty Lectures. (6.) Practice of Medicine, one course, six months. (7.) Clinical Medicine, one course, six months. (8.) Principles and Practice of Surgery, one course, six months. (9.) Clinical Surgery, one course, six months. (10.) In addition to the above courses of Surgery and Clinical Surgery, one six months' course of either of these at the option of the Student; Materia Medica, one course, three months. (11.) Midwifery and the Diseases of Women and Children, one course, three months. (12.) Medical Jurisprudence, one course, three months. (13.) Practical Midwifery, attendance on at least six cases of labour. (14.) Pathological Anatomy, three months' instruction in the post-mortem room of a recognised Hospital. (15.) Practical Pharmacy, three months' practical instruction. (16.) Hospital and Dispensary Practice, twenty-four months' attendance on the practice of a public General Hospital containing on the average at least eighty patients.

A Certificate of Proficiency in Vaccination, from a Vaccine Institution recognised by the Faculty, will be required of every Candidate. Candidates (not exempted from Registration) must have been engaged in Professional Study during four years from the date of Registration, which shall include not less than four Winter Sessions' or three Winter and two Summer Sessions' attendance at a recognised Medical School.

Candidates are subjected to two Professional Examinations. The First Examination embraces Anatomy, Physiology, and Chemistry, and cannot be undergone before the end of the second Winter Session of Study.

The Second Examination embraces Surgery and Surgical Anatomy, Medicine, Materia Medica, Midwifery, and Medical Jurisprudence, and cannot be undergone before the termination of the full period of Study.

Intending Candidates for the Second Examination must produce evidence—1st, of being 21 years of age; and 2nd, of having passed the First Examination. They will also present to the Secretary for inspection their Class and Hospital Certificates, and write out a tabulated statement of their whole course of Study, for which the Secretary, on application, will supply Candidates with printed forms.

The fee for the Diploma is £10—£4 for the First, and £6 for the Second Examination.

First Examinations will be held on the second Tuesday of every month. Second Examinations will take place, the written part on each of the above days, and the oral and clinical parts on the succeeding day. A Candidate, on showing a sufficient reason, may be admitted to Examination on a day specially arranged, by paying an extra fee of £3.

All applicants for the Licence must be registered on the form prescribed by the General Medical Council at the commencement of Professional Study.

Candidates who possess a qualification to practise, or who have passed the Examination in Anatomy, Physiology, and Chemistry before any of the Licensing Boards, will be admitted to the Second Examination on producing evidence of having attended the full Curriculum, and paying the fee of £10.

DOUBLE QUALIFICATION.

The Faculty of Physicians and Surgeons of Glasgow, and the Royal College of Physicians of Edinburgh, while they still continue to give their Diplomas separately, under separate regulations, have made arrangements by which, after one series of Examinations, the Student may obtain two separate Licences—one in Medicine and one in Surgery.

The Fee for the two Diplomas granted conjointly is £16—£6 for the First and £10 for the Second Examination.

The First Examination for the Double Qualification will be held in the Faculty Hall, Glasgow, on October 5, 1871, January 11, April 4, May 2, and July 11, 1872, and on each occasion it will be continued on the succeeding day. The Second Examination will be held, the written part on each of the above days, and the oral part on the succeeding day. Applications to be admitted, either to the First or Second Examination, must be made to the Secretary of the Faculty not later that the Monday preceding the Examination.

PRELIMINARY EXAMINATIONS CONDUCTED BY THE FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW, SESSION 1871-72.

1. Preliminary Examinations in General Literature in accordance with the regulations of the General Medical Council will be held in the Faculty Hall during the Session 1871-72 on the following days, commencing at eleven o'clock, viz.:—Friday, October 20, and Friday, November 3, 1871; Friday, April 26, and Friday, July 19, 1871; and on each occasion the Examination will be continued on the succeeding day.

The Examination will embrace the following subjects:—1. English Language. 2. Latin. 3. Arithmetic; Algebra. 4. Geometry. 5. One of the following subjects at the option of the Candidate:—(1.) Natural Philosophy—Mechanics, Hydrostatics, and Pneumatics. (2.) Greek. (3.) French. (4.) German.

The Fee for the Examination and Certificate is 10s., payable to the Secretary previous to the Examination.

FACULTY OF MEDICINE IN IRELAND.

UNIVERSITIES, COLLEGES, COURSES OF STUDY, DEGREES, AND LICENCES TO PRACTISE.

The following Bodies grant one or more Degrees or Licences to practise Medicine or Surgery, and provide courses of instruction in the Medical Sciences:—The University of Dublin grants the Degrees of M.B. or Bachelor of Medicine; M.D. or Doctor of Medicine; M.C. or Master of Surgery; also Licences in Medicine (L.M.) and Surgery (L.S.). In connexion with the University, Trinity College gives a Diploma in State Medicine, after Examination, to Doctors of Medicine of Dublin, Oxford, or Cambridge. The Queen's University in Ireland, with its Provincial Colleges at Belfast, Cork, and Galway: This University confers the Degrees of M.D. and M.Ch. The King and Queen's College of Physicians in Ireland, grants a Licence and a Fellowship. This Institution, in connexion with the Medical Faculty of the University of Dublin, constitutes the School of Physic in Ireland. The Royal College of Surgeons in Ireland grants Letters Testimonial qualifying to practise Surgery as a Licentiate, and also confers a Fellowship. Fellows and Licentiates of the Colleges of Physicians and Surgeons may obtain from their respective Colleges a Diploma in Midwifery. The Rotundo and Coombe Lying-in Hospitals grant Diplomas in Midwifery, which are, however, not recognised under the Medical Act. The Governor and Company of the Apothecaries' Hall of Ireland also confer a Diploma.

The Medical Session in Ireland commences about the first week in November.

UNIVERSITY OF DUBLIN.

SCHOOL OF PHYSIC.

The School of Physic in the University of Dublin is under the joint control of the Board of Trinity College and of the President and Fellows of the College of Physicians.

MATRICULATION.

All Students of the School of Physic must be matriculated by the Senior Lecturer of Trinity College, for which a fee of 5s. is payable. No Student can be admitted for the Winter Courses after November 25.

DEGREES AND LICENCES IN MEDICINE AND SURGERY.

The Act 21 and 22 Vic., c. 99, recognises, as qualifications for Medical and Surgical Practitioners, the Degrees and Licences in Medicine and Surgery granted by the University. The Degrees are—1. Bachelor of Medicine. 2. Doctor of Medicine. 3. Master in Surgery.

UNIVERSITY DEGREES.

1. *Bachelor in Medicine.*—A Candidate for the Degree of Bachelor in Medicine must be a Graduate in Arts, and may obtain the Degree of Bachelor in Medicine at the same Commencement as that at which he receives his Degree of B.A., or at any subsequent Commencement, provided the requisite Medical education shall have been completed. The Medical education of a Bachelor in Medicine is of four years' duration, and comprises attendance on the following Courses of Lectures, viz.:—Courses of five months' duration (November to April)—Anatomy, Practical Anatomy (with Dissections), Surgery, Chemistry, Practice of Medicine, Midwifery. Courses of three months' duration (April to July)—Botany, Practical Chemistry, Medical Jurisprudence, Materia Medica and Pharmacy, Institutes of Medicine.

Hospital Attendance.—1. Nine months' attendance on the Clinical Lectures of Sir Patrick Dun's Hospital. 2. Nine months' additional attendance on the Clinical Lectures of any Hospital recognised by the Board. 3. Instruction in Practical Midwifery, including not less than six deliveries. 4. Certificate of personal attendance on Fever Cases, stating name and date of each case.

Any of the above-named six or three months' Courses may be attended at any Medical School in Dublin recognised by the Provost and Senior Fellows (and three of them at the discretion of the Candidate, may be attended in the University of Edinburgh), provided the Candidate have kept an *Annus Medicus* in the School of Physic.

The Schools recognised are—1. The School of the Royal College of Surgeons in Ireland. 2. The Carmichael School. 3. The School of Dr. Steevens' Hospital. 4. The St. Peter-street School. 5. The School of the Catholic University. The recognition of these Schools is conditional on their Students being furnished with *bona fide* Certificates of an amount of regular attendance equivalent to that required by the University—viz., three-fourths of the entire number of Lectures in each Course.

An *Annus Medicus*, or a year's attendance in the School of Physic, may be kept in three ways:—1. By attending at least two, or not more than three, of the foregoing Courses, which are of six months' duration. 2. By attending one Course of six months' and two of three months' duration. 3. By nine months' attendance on Sir Patrick Dun's Hospital and Clinical Lectures; together with one Course of six months', or, in lieu thereof, two Courses of three months' duration.

The fee for nine months' attendance at Sir Patrick Dun's Hospital is £12 12s. The fee for each Course of Lectures is £3 3s. The fee for the *Liceat ad Examinandum* is £5. The fee for the Degree of M.B. is £11.

2. *Doctor in Medicine.*—A Doctor in Medicine must be M.B. of at least three years' standing, or have been qualified to take the Degree of M.B. for three years, and must perform exercises for the Degree before the Regius Professor of Physic in accordance with the rules and statutes of the University. Total amount of fees for this Degree, £13.

3. *Master in Surgery.*—The Degree of Master in Surgery can only be obtained by Students who are Bachelors of Arts, and who have completed the Professional Curriculum and passed the Examinations required. The Curriculum extends over a period of four years, and comprises attendance upon the following Courses of Lectures, viz:—Anatomy, one Course; Demonstrations, three Courses; Dissections, three Courses; Theory and Practice of Surgery, two Courses; Practice of Medicine, one Course; Chemistry, one Course; Materia Medica, one Course; Midwifery, one Course; Practical Chemistry, one Course; Botany, one Course; Medical Jurisprudence, one Course.

Hospital Attendance.—Three Sessions, each of nine consecutive months' duration, in any recognised Hospital, together with attendance on the Clinical Lectures on Medicine and Surgery there delivered. Any of the above-named Courses may be attended at any of the Medical Schools of Dublin recognised by the Board, provided the Candidate has kept an *Annus Medicus* in the School of Physic. The following Hospitals are recognised by the Board:—1, Sir Patrick Dun's School of Physic Hospital; 2, Meath Hospital; 3, Richmond, Whitworth, and Hardwicke Hospitals; 4, Dr. Steevens' Hospital; 5, Jervis-street Infirmary; 6, City of Dublin Hospital; 7, Mercer's Hospital; 8, St. Vincent's Hospital; 9, Adelaide Hospital; 10, Mater Misericordiæ Hospital. Of the Courses of Lectures, which are of five months' duration, not more than three can be attended during any one Session. Candidates will also be required to perform Surgical operations on the dead subject. Candidates for the Degree of Master in Surgery, who have already passed the Examination for the Degree of Bachelor of Medicine, will be examined in Anatomy and Surgery only. Fee for the *Liceat ad Examinandum*, £5. Fee for the Degree of M.Ch., £11.

UNIVERSITY LICENCES.

Candidates for the Licences in Medicine or Surgery must be matriculated in Medicine, and must have completed four years in Medical studies. Candidates for the Licences in Medicine or Surgery must pass the following Examination in Arts, unless they be Students in the Senior Freshman or some higher class:—Homer's Iliad, Books I., II. (omitting Catalogue of ships), III.; Lucian's Dialogues (Walker's edition); Xenophon's Anabasis, Books I., II., III.; Virgil, Æneid, Books I., II., III.; Sallust; Horace, Satires; Latin Prose Composition; English Prose Composition; English History; Modern Geography; Arithmetic; Algebra to the end of Simple Equations; Euclid, Books I., II., III. In case the Student should wish to continue the Undergraduate Course in Arts, with a view to the Degree of B.A., his answering in the above will be reckoned as equivalent to the Entrance Examination, and the Hilary Examination of the Junior Freshman year. Students who have passed the foregoing Examination will be required to pay the admission fee of £15.

1. *Licentiate in Medicine.*—The Medical Course and Examination necessary for the Licence in Medicine is the same as for the Degree of M.B., with the exception that any General Hospital approved by the Board of Trinity College may be substituted for Sir Patrick Dun's. Candidates who are already Licentiates in Surgery of the Royal College of Surgeons in Ireland, or Members of the College of Surgeons of England, on passing the foregoing Arts Examination, will be admitted to Examination for the Licence in Medicine. Fee for the *Liceat ad Examinandum*, £5. Fee for the Licence in Medicine, £5.

2. *Licentiate in Surgery.*—The Surgical Course and Examination necessary for the Licence in Surgery are the same as for the Degree of Master in Surgery. Fee for the *Licat ad Examinandum*, £5. Fee for the Licence in Surgery, £5.

Total Expense of obtaining the Degrees of Bachelor in Medicine and Master in Surgery.—I. Lectures: 1. Anatomy (one Course), £3 3s. 2. Practical Anatomy (three Courses), £9 9s. 3. Dissections (three Courses), £12 12s. 4. Surgery (two Courses), £4 4s. 5. Practice of Medicine, £3 3s. 6. Chemistry (two Courses), £4 4s. 7. Materia Medica and Pharmacy, £3 3s. 8. Midwifery, £3 3s. 9. Botany. 10. Medical Jurisprudence, £3 3s. 11. Institutes of Medicine, £3 3s.—II. Hospitals: 1. Sir P. Dun's (first year), £12 12s. 2. Second and third years' attendance, £15 15s. 3. Practical Midwifery, £3 3s.—III. Degrees: 1. *Licat ad Examinandum in Medicina*, £5. 2. *Licat ad Examinandum in Chirurgia*, £5. 3. M.B. Degree, £11. 4. M.Ch. Degree, £11.—Total Expenses: 1. Lectures, £49 12s. 2. Hospitals, £31 10s. 3. Degrees, £32. 4. Private tuition, £20. Total, £133 2s. N.B.—As no Degrees in Medicine or Surgery are conferred except upon Graduates in Arts, the expense of the Degree of Bachelor in Arts, amounting altogether to £82 4s., should be added to the foregoing, making the total cost something over £200.

THE QUEEN'S UNIVERSITY IN IRELAND,

granting the Degrees of Doctor in Medicine and Master in Surgery, includes three Colleges—the Queen's Colleges of Belfast, Cork, and Galway—each of which possesses a Faculty of Medicine. The Curriculum of Medical Study extends over a period of four years, and is divided into two periods of two years each. The first period comprises attendance on Chemistry, Natural History, Anatomy and Physiology, Practical Anatomy, Materia Medica, and Pharmacy. The second period comprises attendance on Anatomy and Physiology, Practical Anatomy, Theory and Practice of Surgery, Midwifery and Diseases of Women and Children, Theory and Practice of Medicine, Medical Jurisprudence. At least two of the above Courses of Lectures must be attended in some one of the Queen's Colleges; the remainder may be taken, at the option of the Candidate, in any University, College, or School recognised by the Senate of the Queen's University. Candidates are required before graduating to have also attended in one of the Colleges of the Queen's University Lectures on Experimental Physics and on one Modern Language, and to have passed the Matriculation Examination. They are further required to attend, during the first period, Practical Chemistry in a recognised Laboratory, and the Practice during six months of a recognised Medico-Chirurgical Hospital, containing at least sixty beds, together with Clinical Lectures delivered therein; and to attend, during the second period, a recognised Midwifery Hospital, with the Clinical Lectures therein delivered, for a period of three months; or a Midwifery Dispensary for the same period; or ten cases of Labour, under the superintendence of the Medical officer of any Hospital or Dispensary where cases of labour are treated; and eighteen months' Practice of a recognised Medico-Chirurgical Hospital containing at least sixty beds, and in which Clinical Instruction is delivered. There are two University Examinations; one comprising the subjects of study in the first period, the other the subjects of the second period. The University Examinations are held twice in each year—in June and September. Candidates who commence their Medical Studies elsewhere are admitted to the First University Examination before proceeding to College. Further information will be found in the "Queen's University Calendar," or may be obtained by application to the Secretary, Queen's University, Dublin Castle.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.

REGULATIONS RELATIVE TO THE LICENCE IN MEDICINE.

Examinations for the Licence in Medicine are statedly held on the second Tuesday and Wednesday in each month (except August and September).

The name of every Candidate, together with his Schedule and the documents hereafter mentioned, must first be submitted to the College at one of its meetings. These are held regularly on the first Friday in each month (except August and September).

CURRICULUM.

A Candidate who has not, previous to entering his name, obtained any Medical or Surgical Qualification recognised by the College, must produce—1. Evidence of having been engaged in the study of Medicine for four years. 2. A Certificate of having passed the Preliminary Examination of one of the recognised Licensing Corporations before the termination of the second year of Medical Study. 3. Certificates of having studied, at a School or Schools recognised by the College, the following subjects, viz.:—Practical Anatomy; Anatomy and Physiology, or Institutes of Medicine; Botany; Chemistry; Practical Chemistry; Materia Medica; Practice of Medicine and Pathology; Surgery; Midwifery; Medical Jurisprudence. 4. Certificates of having attended a Medico-Chirurgical Hospital in which regular Courses of Clinical Lectures are delivered, together with Clinical Instruction, for twenty-seven months. 5. A Certificate of having attended Practical Midwifery for six months at a recognised Lying-in Hospital, or evidence satisfactory to the College in each individual case of having attended Practical Midwifery. 6. Certificates of character from two registered Physicians or Surgeons.

A Candidate who has already obtained a Medical or Surgical Qualification recognised by the College, is required to fill up a Schedule which will be supplied on application, and to lodge it in the same manner as a Candidate not previously qualified; but the only documents he is required to produce are his Diploma or Certificate of Registration, and the Certificate of Practical Midwifery, and Testimonials as to character.

EXAMINATION FOR THE LICENCE IN MEDICINE.

The Examination is conducted—1st, Clinically; 2ndly, by printed questions to be answered in writing; and 3rdly, *viva voce*; and consists of two parts. The subjects of the First Part or Previous Examination are—Anatomy, Physiology, Botany, Chemistry. The subjects of the Second Part or Final Examination are—Materia Medica, Practice of Medicine, Medical Jurisprudence, Midwifery.

All Candidates for the Second or Final Examination (with the exception below specified(a)) are examined in the Practice of Medicine at the bedside in one of the Hospitals of Dublin. The name of the Hospital selected will not be declared to the Candidates until half an hour previous to the time of examination.

Candidates qualified as follows are required to undergo the *second part* of the Professional Examination *only*, viz.:—1. Graduates in Medicine of a University in the United Kingdom, or of any Foreign University approved by the College. 2. Fellows, Members, or Licentiates of the Royal College of Physicians of London or Edinburgh, who have been admitted upon Examination. 3. Graduates or Licentiates in Surgery. 4. Candidates who, having completed the Curriculum above mentioned, have passed the Previous Examination of any of the Licensing Corporations in the United Kingdom.

DIPLOMA IN MIDWIFERY.

Candidates already qualified in Medicine or Surgery may apply for permission to be Examined for the Diploma in Midwifery. The Certificates required to be lodged are the same as those required from *Qualified* Candidates for the Licence to practise Medicine.

Fees.—Fee for the Licence in Medicine, £15 15s. Fee for Licence in Medicine and Diploma in Midwifery (for which latter there is a separate Examination, if taken out within an interval of a month), £16. Fee for the Diploma in Midwifery, £3 3s.

Further information and blank Schedules can be obtained by application, personally or by letter, to the Registrar, College of Physicians, Kildare-street, Dublin.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

I.—REGISTRATION OF PUPILS.

Every person requiring to be registered as a Pupil on the College books shall, if the Council think fit, be so registered if he shall have laid before the Council a receipt showing that he has lodged, to the credit of the President and for the use of the College, in the Bank of Ireland, a registry fee of five guineas.

II.—QUALIFICATIONS OF CANDIDATES FOR LETTERS TESTIMONIAL.

Every Registered Pupil shall be admitted to an Examination for Letters Testimonial if he shall have laid before the Council the following documents:—

a. A receipt showing that he has lodged a sum of twenty guineas in the Bank of Ireland to the credit of the President and for the use of the College.

(a) Candidates who are Physicians or Surgeons of five years' standing are further exempted from the Clinical and written portions of the Final Examination.

b. A Certificate that he has passed an Examination as to his acquaintance with the Greek and Latin Languages.

c. Certificate showing that he has been engaged in the study of his Profession for not less than four years.

d. Certificates of attendance on an Hospital recognised by the Council, where Clinical Instruction is given during three years.

e. Certificates of attendance on three Courses of Lectures on Anatomy and Physiology; three Courses of Lectures on the Theory and Practice of Surgery, and of the performance of three Courses of Dissections, accompanied by Demonstrations; also, Certificates of attendance on Two Courses of Lectures on Chemistry, or one Course of Lectures on General and one on Practical Chemistry; one Course of Lectures on Materia Medica; one Course of Lectures on the Practice of Medicine; one Course of Lectures on Midwifery; one Course of Lectures on Medical Jurisprudence; and one Course of Lectures on Botany.

QUARTERLY EXAMINATION.

1. Examinations are held Quarterly, on the second Tuesday in February, May, August, and November, at which Candidates shall be divided into two classes—Junior and Senior.

2. The Junior Class shall produce Certificates of having attended three Courses of Lectures on Anatomy and Physiology; three Courses of Lectures on Practical Anatomy, with Dissections; two Courses of Lectures on Chemistry; one Course of Lectures on Materia Medica; one Course of Lectures on Botany; and one Course of Lectures on Forensic Medicine.

3. This Class shall be examined in Anatomy, Physiology, and Materia Medica.

4. The fee for this Examination shall be five guineas; not to be returned in case of rejection, but to be allowed in the fee for the second examination.

5. The Senior Class shall produce Certificates of having attended three Courses of Lectures on the Theory and Practice of Surgery, one Course of Lectures on the Practice of Medicine, and one Course of Lectures on Midwifery; also Certificates of attendance on a recognised Hospital for three Winter and three Summer Sessions.

6. This Class shall be examined in Surgery, Operative Surgery, the Practice of Medicine, and form of Prescription.

7. Both these Examinations shall be partly written and partly oral.

8. The fee for this Examination shall be fifteen guineas.

Fees to be paid by Candidates for Letters Testimonial.

1. The Candidate pays ten shillings for his Preliminary Examination.

2. Five guineas as Registered Pupil of the College.

3. Five guineas for the Junior Class Examination, which is not returned in case of rejection, but is allowed in the fee for his second examination.

6. Fifteen guineas for the Senior Class Examination—total, £26 15s.

5. In addition to the foregoing, a fee of one guinea is to be paid to the Registrar, on handing each Licentiate his Diploma.

6. Every Candidate rejected at the Quarterly Examination shall be required to pay to the College the sum of two guineas on applying for re-examination, so as to recompense the College for the necessary expense.

III.—QUALIFICATIONS OF CANDIDATES FOR THE FELLOWSHIP.

Every Registered Pupil or Licentiate shall be admitted to examination for the Fellowship if he shall have laid before the Council the following documents:—

a. A receipt showing that he has lodged in the Bank of Ireland, for the use of the College, if he be a Licentiate, the sum of twenty guineas, or thirty-five in case he be a Registered Pupil; provided in either case he intends to reside beyond ten miles from Dublin. Should the Candidate intend to reside in Dublin, or within ten miles thereof, he shall lodge, if he is a Licentiate, thirty guineas; or if he be a Registered Pupil, forty-five guineas. Fellows entering on the country list, who may subsequently settle as Practitioners in Dublin, or within ten miles thereof, shall pay ten guineas to the College.

b. A Certificate that he is 25 years of age.

c. A Certificate that he is a Bachelor of Arts of some University, or that he has been examined in such manner as the Council may from time to time direct, with a view to ascertain that he has obtained a liberal preliminary education.

d. A Certificate, signed by two or more Fellows of the College, of good general conduct during his Professional education.

e. Certificates that he has been engaged in the acquisition of Professional knowledge for a period of not less than six years, during three of which he must have studied in one or more of the Schools or Hospitals recognised by the Council. He may have studied for the other three years in any School or Schools of the United Kingdom which shall be approved by the Council, or in any Foreign School of repute. It is also required that the Candidate shall have had opportunities of practical instruction as House-Surgeon or Dresser in a recognised Hospital.

f. Certificates of attendance on the several Courses of Lectures required to be attended by Candidates for Letters Testimonial, together with one Course of Lectures on Comparative Anatomy and one Course on Natural Philosophy.

g. A Thesis on some Medical subject or Clinical reports, with observations of six or more Medical or Surgical cases taken by himself.

h. Candidates of the required age, who shall have taken the Degree of Bachelor of Arts in a British or Irish University, and have complied with the foregoing regulations in other respects, will be admitted to examination at the end of five years of Professional Study, of which three years must have been passed in one or more of the recognised Schools or Hospitals.

i. Licentiates of the College, who may not be able to show that they have followed the course of study specified in the preceding regulations, may, at the expiration of ten years from the date of their Diploma, be admitted to the Examination required for the Fellowship, provided they produce such evidence as shall be satisfactory to the Council that they have conducted themselves honourably in the practice of their Profession.

PRELIMINARY EXAMINATION, REGISTRATION, AND MATRICULATION.

Registered Pupils are admitted to answer the Preliminary Examination at any period previous to the final Examination for Letters Testimonial.

Students who are not Registered Pupils are also admitted to answer the Preliminary Examination at any period previous to the Examination for Letters Testimonial, upon payment of a matriculation fee of ten shillings.

The following are the subjects upon which each Candidate for the Preliminary Examination will be examined, viz.—The English Language, including Grammar and Composition. Arithmetic, including Vulgar and Decimal Fractions. Algebra, including Simple Equations. Geometry, first two Books of Euclid. Latin and Greek, including Translations and Grammar. In Greek—the Gospel of St. John, the Menippus of Lucian, or the First Book of Xenophon's Anabasis. In Latin—The First and Second Books of the Æneid of Virgil, the Jugurthine War of Sallust, or the Third Book of Livy. These Examinations are held quarterly, viz.:—On the Third Wednesday in January, April, July, and October in each year. Fee, ten shillings.

Candidates are requested to enter their names, and pay the fee to the Registrar, at least three days previous to the day of Examination.

THE APOTHECARIES' HALL OF IRELAND.

BY-LAWS AND REGULATIONS.

Every Candidate for the Licence to practise is required to undergo a Preliminary and a Professional Education and Examination.

THE PRELIMINARY EDUCATION AND EXAMINATION IN ARTS.

Compulsory.—1. English Grammar, Composition, Writing from Dictation, and the leading events of Roman and English History. 2. Arithmetic and Algebra, to Simple Equations. 3. Geometry: First Two Books of Euclid. 4. Latin: The Twenty-First Book of Livy; the first Three Books of the Æneid of Virgil; the first Two Books of the Odes of Horace (any two of the three named). 5. Greek: The first Two Books of the Anabasis of Xenophon; the Ninth Book of the Iliad of Homer; The Ajax of Sophocles (any two of the three named). 6. French: Charles XII., or "Voyage en Orient" of Lamartine, and General Physiology. 7. German: "Wilhelm Tell," or "Die Rauber" of Schiller. Candidates will be examined in French or German, as they may select.

Optional.—1. Natural Philosophy: Mechanics, Hydrostatics, and Pneumatics. 2. Natural History: The Classification, Elementary Structure and General Physiology of Vegetables and Animals.

THE ARTS EXAMINATIONS

will be held at the Hall four times in the year—viz., the third Thursday in the months of January, April, July, and October, at the hour of 12 o'clock noon. It will be conducted by means of printed papers and by Special Examiners (Graduates in Arts of the University of Dublin), with Assessors from the Court

of the Hall. The answers to the papers will be required in writing.

Unsuccessful Candidates will be remitted to their Studies for a period of six months.

THE PROFESSIONAL EDUCATION AND EXAMINATIONS.

Every Candidate for the Licence to practise must produce Certificates to the following effect:—

1. Of having passed an Examination in Arts previously to entering on Professional Study.

2. Of being at least 21 years of age, and of good moral character.

3. Of Apprenticeship to a qualified Apothecary, or of having been engaged at Practical Pharmacy with an Apothecary for a period of three years subsequent to having passed the Examination in Arts.

4. Of having spent four years in Professional Study.

5. Of having attended the following Courses, viz.:—Chemistry, during one Winter Session; Anatomy and Physiology, during two Winter Sessions; Demonstrations and Dissections, during two Winter Sessions; Botany and Natural History, during one Summer Session; Practical Chemistry (in a recognised Laboratory), during three months; Practical Pharmacy (in a recognised Laboratory), during three months; Principles and Practice of Medicine and Therapeutics, during one Winter Session; Midwifery and Diseases of Women and Children, during six months; Practical Midwifery at a recognised Hospital (attendance upon twenty cases); Surgery, during one Winter Session; Forensic Medicine, during one Summer Session; Instruction in the Practice of Vaccination.

6. Of having attended, at a recognised Hospital or Hospitals, the Practice of Medicine and Clinical Lectures on Medicine, during two Winter and two Summer Sessions; also the Practice of Surgery and Clinical Lectures on Surgery, during one Winter and one Summer Session.

7. Of having performed the operation of Vaccination successfully under a recognised Vaccinator.

The Court of Examiners require Lecturers and Teachers to hold weekly Class Examinations.

The Examination for the Licence to practise is divided into two parts:—The First Part comprehends Chemistry, Botany, Anatomy, Physiology, and Pharmacy. The Second—Medicine, Surgery, Pathology, Therapeutics, Midwifery, Forensic Medicine, and Hygiene. The First Part may be undergone at the close of the Second Winter Session, and after the Candidate has attended the Courses upon the several subjects named for this Examination; and the Second after the completion of his studies at the termination of the fourth Winter Session.

The Professional Examinations will be held quarterly, and will commence on the first and second Mondays in the months of January, April, July, and October.

Candidates for the Licence must lodge their testimonials, and enrol their names and addresses, with the Clerk at the Hall, in Dublin, a week prior to the day of Examination.

TO CORRESPONDENTS.

We beg to return our best thanks to the Registrars and Secretaries of the various Universities, Colleges, and Schools for their prompt replies to our Circular, and for the trouble they have taken in supplying the latest Regulations of the Institutions with which they are connected.

In order to confine the whole of this week's Number to information specially important to Students, we are compelled to defer answers to several Correspondents, together with all notices of passing events, until next week.

Medical Times and Gazette.

SATURDAY, SEPTEMBER 9, 1871.

TO STUDENTS.

Once again the revolving year brings us to the time when with the "Students' Number" of the journal it is, or we think it is, incumbent on us to address a few words of advice and encouragement to Medical Students; and we confess that we cannot honestly say, with the Lake Poet, that—

"Pleasure hath not ceased to wait
On this expected annual round."

—for, in truth, this "Address to Students" is one of the autumnal nightmares of our editorship. In our younger days, when the exercise of the editorial "we" was, perchance, new to us, we were troubled by no doubts either that we could guide Students in the way that they should go, and help them to make the best use of their time, or that they both read and profited by our advice; but Time, devourer of enthusiasm as well as of other things, has rather shaken our confidence in the literary taste and judgment of Students, and in our own knowledge of what is the best course for each and all of them to pursue. Still, we cannot refrain from a few words of greeting to those who are entering one of the noblest and most self-elevating of all professions, and we may point to a few of the broad general principles that none can slight without evil consequences.

Supposing we were to begin at the beginning, and ask what is meant by "a Student," answers might be given of very various kind and tone. It might be said that a Student is a being created by the kind Providence that watches over the interests of lecturers and examiners; or, he is the pabulum of Medical Schools, the sport and victim of the Licensing Bodies and the Medical Council. And many answers of the like kind might doubtless be given, each containing a certain amount of truth. But we want a serious reply—a wider, deeper, and higher definition—and will take that of Vossius, who tells us that the word Student is derived, through the Latin, from a Greek verb meaning "*summâ vi contendere*—to strive with the greatest force, to exert all the power of the mind;" and Howell, speaking of study and of what the Student ought to be, says, "*teneri fideliter, et uti feliciter:* these are two of the happiest properties in a Student." Surely these two quotations may most fittingly and usefully be the text of our brief address.

We present them to our friends, the Students, and say—Take them as mottoes. They contain the very pith and essence of what we would say to you, both as to the spirit in which you should work—*summâ vi*—and as to the grasp and command you should strive to obtain over the subjects at which you work—*teneri fideliter, et uti feliciter*. On beginning your four years' studentship you enter on the studies that are to fit you for your special work in life. It is entering on man's work: quit yourselves like men. Do not for a moment entertain the idea that four years is a long time, and that you can afford to loiter over your work at first; the time is all too short for the variety of subjects you have to work at in order to fit you to undertake the care of human health and life. And, on the other hand, do not be appalled by the number and vastness of the studies marked out for you; by steady, persevering diligence you cannot fail to conquer them. Work thoroughly, when you work, and never in a half-hearted, slipshod fashion; but whatever the subject you are engaged on may be—whether you are to learn much of it or a little only, whether you have to master only the A B C or to go deeply into it—work at it with a will, *summâ vi*, and then you will make it your own so far as you go into it, and you will retain faithfully the knowledge you have acquired. Beware of working merely that you may be able to pass an examination, and of regarding examinations merely as dreadful ordeals that must be "got through." Work that you may know, and use examinations as the best means of trying and testing your work. Especially welcome class examinations for this purpose; honestly met and used, they will prove the best and readiest mode of proving the accuracy, thoroughness, and readiness of your knowledge, and they will, by use and practice, prepare you to face your chief examinations with cool courage and presence of mind.

Make use, as fully as you can, of all the sources of knowledge within your reach—lectures, examinations, the dissecting-room, the post-mortem room, the laboratories and the museum, books (and most continuously, earnestly, and perseveringly the living books in the out-patients' rooms and the wards), note-taking and case-taking, the debating-society, and

any opportunities of earnest discussion—and you will thus take the best means of making your knowledge full, accurate, and ready; you will have acquired the properties—"*teneri fideliter, et uti feliciter.*"

We do not mean, of course, that you are to be for ever, always, and only at work. If you work well and with close attention when working, you will have time for, and will have earned the right of, recreation; and you will need due exercise and amusement. But let your amusements and sports be manly, brave, and healthy. And wherever you are, be observers: "The noblest study of mankind is Man," and the Medical man needs especially to study man in health as well as in disease. There's a deal of human nature in patients, and the Medical man should be carefully observant of all its varieties. Readiness of recognition of the kind and manner of the human beings that come to him immensely helps him in the management of their diseases and disorders, and may make the chief difference between the successful and the non-successful Practitioner.

In addition to all this, be honest English Gentlemen, and then, at the end of your four years of studentship, you will be ready to enter on the practice of your Profession with advantage to your fellow-creatures, and with pleasure, as well as profit, to yourselves.

With these few words, we welcome you, and wish you Godspeed in your labours.

THE FUTURE LIFE OF THE MEDICAL STUDENT.

That the "boy is father to the man" is an aphorism generally received, and in the main it is true. "As we sow we reap."

It may be assumed that this axiom may be accepted in respect to the Student of Medicine. The idle and dissipated Student rarely turns out the industrious and painstaking Practitioner. Undoubtedly habits, bad or good, may be got rid of; but it is much easier to dispense with a good for a bad habit, than a bad for a good one. It is method and mental training that are of far more importance to the future Practitioner than great natural abilities or extraordinary acquirements. Habits of observation, the exercise of moderate abilities, and the acquirement of general principles are of far more importance than the occasional display of brilliant parts and the exhibition of knowledge too minute to be practical, and too discursive to be of service at the bedside. The tailors of Laputa were, according to Gulliver, the most learned in the world. They cut their coats by mathematical calculation, and yet were not famous as "fitters." Indeed, we are told that on one occasion an over-learned "disciple of the shears" made the error of a single figure in his problem, and the result was, the production of a coat large enough to enwrap the whole corporation of Laputa in its folds.

Too much refinement, too much fine-spinning in knowledge, is injurious to the culture of a vigorous intellect and of accurate powers of observation. Robert Hall once remarked of a very learned, but a very silly man—"Sir, he has so many books on his head, they compress his brain." It is too much the fashion of the Medical Student to regard passing his examinations as the grand event of his life—as the entrance, as it were, into a new and happier state of existence; but this is far from being the case. His diplomas are the guarantees to the public that he has fitted himself for practice; but his Student-life continues. "I am still a Student," said Sir Astley Cooper, before the Parliamentary Committee, when he was 65 years of age, "and should not be satisfied if I did not dissect something daily." And the fact that they must continue to study and to observe will be more patent to the younger members of our Profession the longer they live. They will gradually become more alive to the "uncertainties" of Medicine; to the necessity for caution and of modesty as to their own abilities. One of the greatest amongst us said, after being forty years in practice, "I commenced with twenty remedies for every disease, and now I find twenty diseases for which I can find no remedy." This is, perhaps, a little too decided, but there is unquestionably much of truth in it.

The moral of all that we gather from the above and similar anecdotes is—that Medicine is not an exact science, and never can be; that mere book-knowledge is of little avail; and that, to use the language of Baillie, "the successful practice of Medicine depends mainly on the exercise of common sense and observation, combined with a moderate amount of knowledge." And this it is which distinguishes one man from another in the "world's broad field of battle." The book-learned, the hair-splitter, the *dilletante* Practitioner, is nowhere; whilst the moderately well informed man, who has exercised his senses, and eschewed the "dandyism" of Physic, is successful." It is true that occasionally the worker for prizes alone may reach distinction if his bodily powers can maintain the strain put upon them; but how many

> "By the roadside fell and perished,
> Weary with the march of life!"

The successful Practitioner should be a healthy man; should bear a cheerful countenance, and have a word of hope to succour the afflicted. Even if he cannot save, he can alleviate; if he cannot cure, he can cheer. To have good health in after-life, it is unnecessary to say that the habits of the Student should be such as to give a fair amount of time to physical exercise and recreation.

The future life of the Student is neither all cloudy nor all sunshine: like an April day, however, there is enough of both—sometimes to depress, often to enliven. Stripped of the "poetry" with which some are ever anxious to environ it, it is a fact that there is no profession which has more true elements of happiness in it than that of Medicine. The lawyer sees in the main the worse parts of human nature; the clergyman, as a rule, has but limited means of observing mankind; but the Doctor sees humanity in all its phases—from the cradle to the grave. If he sees instances of querulousness, impatience, and repining under suffering, he is witness also to heroism, patience, and fortitude in the hours of pain and tribulation. If he meet with instances of ingratitude—and these he will surely meet with, perhaps out of proportion to what he could reasonably expect—he will be cheered on numberless occasions by grateful thanks and heart-cheering expressions of good-will. If he practise his Profession as a man of honour and prudence, he cannot fail to make it, even "commercially," a profitable pursuit. It is not for everyone to make a fortune—this, indeed, is quite the exception to the rule; but he will obtain means to live like a gentleman, and put something by for the hour of need.

In conclusion, we will quote the advice of one who knew human nature well, and who, in his Profession, was not only one of the ablest, but one of the most successful, of Surgeons, on the subject of the standing in society to be taken by the Medical Practitioner, and his bearing towards those who employ him. In his address to the Students of St. George's Hospital in October, 1850, Sir Benjamin Brodie concluded as follows:—"You are entering on a Profession which is good or bad, according to the manner in which it is pursued: let me offer you some suggestions as to your conduct in it. On no occasion allow anything to interfere with the strict performance of your Professional duties. Whatever you undertake to do, that do to the very best of your ability, sparing neither thought nor trouble, whether it be the case of the poor man, to whom you give gratuitous assistance, or of the rich man, who remunerates you liberally for your attentions. Consider yourselves as being engaged, not in a trade, but in the cultivation of a noble and interesting science. Let it be your first object to deserve and obtain the good opinion of all classes of society with whom you come in contact, not only as being skilful Practitioners, but as men of honour and integrity. You will thus be in that

independent situation which will place yon above the caprice of the foolish, and also above the necessity of stooping to obtain the favour of any individual. Do justice to others, but do justice to your Profession and yourselves, always bearing in mind that those who are in any way usefully and worthily employed have a much higher place in the scale of existence than those useless and selfish persons who live only for themselves, however high their rank, however large their fortunes."

CHANGES IN THE METROPOLITAN HOSPITALS AND SCHOOLS.

Giving, as is our wont, an account of the changes in the Hospital Staff and School *personnel* of the various London Hospitals, and taking each in its alphabetical order, we note —first, with regard to St. Bartholomew's Hospital, the irremediable loss of Sir James Paget. It is matter for congratulation that, though he be lost to the Hospital, he is not lost to the Profession, and that his health has now been so far restored as to enable him to resume its practice. Although his retirement has been before this noticed and commented on, we cannot help again referring to his wonderful powers as a teacher, attracting to himself the pupils by the pleasant cheerfulness of his manner as well as by his wonderful diction. As a speaker, especially on Professional subjects, Sir James Paget has few equals, and his loss will long cause a blank at St. Bartholomew's Hospital, the more especially as he has retired in the full maturity of his powers, and before the deadening effects of age were in the slightest degree traceable in him. We also observe that Mr. Holden has retired from the Chair of Anatomy, and that his place has been filled by Mr. Thomas Smith, who, in conjunction with Mr. Callender, now holds the chair in question. By the resignation of Sir James Paget, Mr. Callender became full Surgeon, and Mr. Morrant Baker was appointed Junior Assistant-Surgeon. The Chair of Chemistry, empty by the untimely death of Dr. Matthiessen, has been filled by Dr. Russell, formerly of St. Mary's Hospital; and Dr. Shaw has taken the place of Dr. Thorn, now one of the Privy Council Medical Officers, as Lecturer on Psychological Medicine. Certain minor changes have taken place with regard to the teaching of Operative Surgery and Practical Physiology; but probably the most important change of all is the alteration of the total fees payable to the Hospital to £110 5s.

At Charing-cross Hospital, the grievous death of Dr. Salter occasioned changes in several departments. Thus, Dr. Headland now lectures on Medicine, and Dr. Powell on Materia Medica. By the enlargement of the Hospital Staff, too, Dr. Julius Pollock has become full Physician, and Mr. Hird full Surgeon, with charge of in-patients; the two vacancies having been filled by Dr. Powell and Mr. Fairlie Clarke, respectively. Mr. G. A. Canton has become Surgeon-Dentist in the place of Mr. Parkinson; and Mr. John M. Bruce has been appointed Demonstrator of Practical Physiology.

At St. George's, the most important changes are the appointments of Mr. Brudenell Carter in the place of Mr. H. Power, whose services as Ophthalmic Surgeon have been transferred to St. Bartholomew's; and of Dr. Dickinson as Teacher of Morbid Anatomy and Pathology, a post for which he is unusually well qualified.

At Guy's, Mr. Cock, the Senior Surgeon, has retired, and Mr. Bryant has become full Surgeon in his place, Mr. Davies-Colley becoming Junior Assistant-Surgeon. Dr. Fagge is now associated with Dr. Moxon in the teaching of Pathology; Mr. Bryant ceases to teach Operative Surgery; and a newly formed Chair of Psychological Medicine is filled by Dr. Dickson.

At King's College, we observe that the great loss of Professor Miller has, as nearly as possible, been made good by the appointment of Mr. Bloxam to the Chair of Chemistry; that Dr. Ferrier has been appointed Demonstrator of Practical Physiology; and Dr. E. Sheppard to the Chair of Psychological Medicine.

At the London Hospital the changes are not numerous. Dr. Langdon Down takes a share in the teaching of Medicine; and Dr. Prosser James now fills the Chair of Materia Medica, Dr. Tidy taking Medical Jurisprudence.

At St. Mary's, by lapse of years, both Dr. Sibson and Mr. Samuel Lane have come to resign, the new appointments being Dr. Nunneley and Mr. Hayward; Dr. Broadbent and Mr. Gascoyen each taking their step. The Chair of Medicine is shared by Dr. Chambers with Dr. Broadbent; that of Surgery by Mr. J. Lane with Mr. Gascoyen. Mr. T. Norton retains Anatomy alone; and Dr. Lawson does the same with regard to Physiology. Dr. Nunneley takes in hand Practical Physiology; and Dr. Wright lectures on Chemistry in place of Dr. Russell. One of the most important changes is that of Dr. Meadows for Dr. Tyler Smith, in the Chair of Midwifery and the post of Obstetric Physician.

At Middlesex Hospital, the greatest loss sustained is the transfer of Dr. Murchison's services and those of Mr. Henry Arnott to St. Thomas's Hospital. Dr. Greenhow takes the place of Dr. Murchison as Lecturer on Medicine; and Dr. Cayley that of Mr. Arnott in the Chair of Pathology. Dr. Burdon-Sanderson has also given up his connexion with the Hospital; but only two new appointments have been made—viz., Dr. John Murray as Assistant-Physician, and Mr. Morris as Assistant-Surgeon. At this Hospital Mr. Lowne lectures on Physiology, Dr. Murie on Comparative Anatomy, and Dr. Divers on Forensic Medicine.

At St. Thomas's—which, by the way, we may now announce open for receiving patients—almost a new staff has been constructed. The recent appointments to the staff are too well known to require recapitulation. The School is altered as follows:—Drs. Peacock and Murchison lecture on Medicine; Messrs. Le Gros Clark and Sydney Jones on Surgery; Mr. Mason and Mr. Wagstaffe on Anatomy; Mr. Croft and Mr. MacCormac on Practical Surgery; Dr. Bristowe on General Pathology; Dr. Ord and Dr. John Harley on Physiology; and Mr. Liebreich on Ophthalmic Surgery. Mr. Stewart lectures on Comparative Anatomy; and Dr. Payne gives the Demonstration on Pathology.

At University College and Hospital there are not this year many changes. One thing worthy of notice is that there is but one Assistant-Physician—Dr. F. Roberts—about the place, and not one Assistant-Surgeon. Dr. Burdon-Sanderson's Course can hardly be called new. The chief novelty is the division of the teaching of Practical Surgery into three parts, under Messrs. Berkeley Hill, Christopher Heath, and Marcus Beck.

At Westminster, Mr. Mason's services have been transferred to St. Thomas's. Mr. Pearse takes his place in the Chair of Anatomy, Mr. Davy becoming Demonstrator in the place of Mr. Pearse. Dr. Anstie now lectures on Practice of Medicine, Dr. Sturges becoming Lecturer on Materia Medica. Thus ends our survey of the many and notable changes which appear in this year's prospectuses.

Comparative Pathology and Pathological Histology.—The Laboratory of the Brown Institution will be open for advanced Students and Members of the Profession at Christmas. The Pathological Work of the Laboratory will be under the direction of the Professor; the Histological under that of Dr. E. Klein, formerly Lecturer on Histology in the University of Vienna. For further information apply to Dr. Burdon-Sanderson, or to Dr. E. Klein, 18, Rowland-street, Tottenham-court-road.

City of London Hospital for Diseases of the Chest, Victoria-Park.—Office, 24, Finsbury-circus, E.C.—Physicians—T. B. Peacock, M.D.; J. R. Bennett, M.D.; E. L. Birkett, M.D.; S. H. Ward, M.D.; J. Andrew, M.D. Consulting Surgeon—J. Hilton, F.R.S. Assistant-Physicians—J. C. Thorowgood, M.D.; H. G. Sutton, M.B.; A. B. Shepherd, M.B.; C. Bäumler, M.D.; Eustace Smith, M.D.; W. H. Corfield, M.B. Resident Medical Officer—Mr. W. H. Power. The Hospital affords accommodation for 160 in-patients. During the last year 772 cases were under treatment in the wards, and 13,174 were relieved as out-patients. In-patients admitted since the wards were opened in 1855, 7709; out-patients admitted since the establishment of the Institution in 1848, 194,000. Information respecting Medical instruction at the Hospital may be obtained on application to the Physicians.

TABLES

GIVING THE NAMES OF LECTURERS, HOURS OF LECTURE, DAYS OF ATTENDANCE, AND FEES IN THE METROPOLITAN MEDICAL SCHOOLS AND HOSPITALS.

LECTURES.	ST. BARTHOLOMEW'S.					CHARING CROSS.					ST. GEORGE'S.				
	Lecturers.	Days and Hours.	Fees. 1 Course	2 Courses	Perpetual.	Lecturers.	Days and Hours.	Fees. 1 Course	2 Courses	Perpetual.	Lecturers.	Days and Hours.	Fees. 1 Course	2 Courses	Perpetual.
WINTER SESSION.			£ s.	£ s.	£ s.			£ s.	£ s.	£ s.			£ s.	£ s.	£ s.
PRINCIPLES AND PRACTICE OF MEDICINE	Dr. Black Dr. Andrew	M Tu and Th 3.30	5 5	..	7 7	Dr. Headland	M W F 2.30	4 4	6 6	..	Dr. Barclay	M W F 9	6 6	..	7 7
SURGERY	Mr. H. Coote Mr. Savory	M W 2.30 S 9	5 5	..	7 7	Mr. Canton	Tu Th S 9	3 3	5 5	..	Mr. Holmes Mr. Pick	M W F 3	6 6	..	7 7
PRACTICAL SURGERY ..	Mr. Willett	..	5 5	..	7 7	..	..	..	..	..	..	..	..	..	..
DESCRIPTIVE & SURGICAL ANATOMY	Mr. Callender Mr. T. Smith	Tu W Th F 9	7 7	..	10 10	Mr. Barwell	M W F 9 Th 3	4 4	6 6	..	Mr. Rouse	Daily 9	6 6	..	7 7
ANATOMICAL DEMONSTRATIONS.	Mr. Langton Mr. Marsh	Daily 10.15 till 2	3 3	5 5	..	Mr. Bellamy Mr. Bruce	Daily, 10 to 1	3 3	5 5	..	Mr. Goldsmith Mr. Bennett	Daily 10	3 3	..	..
PHYSIOLOGY	Mr. Baker	Tu Th F 2.30	7 7	..	10 10	Dr. Silver	M Tu W F 3.30	4 4	6 6	..	Dr. W. Ogle	Tu Th 3 F 11	6 6	..	7 7
PRACTICAL PHYSIOLOGY..	Mr. Symons	..	5 5	..	7 7	Dr. Silver	..	..	..	..	..	..	..	..	..
CHEMISTRY	Dr. Russell	M W F 10	5 5	..	7 7	Mr. Heaton	M Th F 11	5 5	..	..	Dr. Noad	Tu Th S 11.30	6 6	..	8 8
HOSPITAL PRACTICE—															
Physicians	Dr. Black Dr. Harris Dr. Andrew Dr. Southey	M Tu Th 1 Tu Th S 1.30 M Tu Th F S 1.36 M W Tu S 1.30	12 12 6 mths	18 18 2 yrs.	26 5	Dr. Headland Dr. Pollock Dr. Silver Dr. Biegel, *skin dis.*	Tu Th S 1 Tu Th S 1 Tu Th Tu F	10 10 6 mths	15 15 12 mths	21 0	Dr. Fuller Dr. Barclay Dr. J. Ogle Dr. Wadham	Tu S 1 M F 1 M F 1 Tu S 1	8 8 6 mth	16 16 3 years	25 4
Assistant-Physicians ..	Dr. Church Dr. Gee Dr. Duckworth Dr. Hensley	Tu F 11 W S 11 M Th 11 F 1.30	..	..	..	Dr. Green Dr. Powell	M Th W S	..	..	..	Dr. Dickinson Dr. W. Ogle	Tu S 12 M F 12	..	..	..
Surgeons	Mr. Coote Mr. Holden Mr. Savory Mr. Callender	M W F S 1.30 Tu F S 1.30 M Tu W Th F S 1.30 Daily 1.30	15 15 6 mths	21 0 1 year	26 5	Mr. Hancock Mr. Canton Mr. Hird Mr. Barwell	M Th 1 Tu F 1 W S 1 M Th 1	10 10 6 mths	15 15 12 mths	21 0	Mr. P. Hewett Mr. Pollock Mr. H. Lee Mr. Holmes Mr. Brodhurst *orthop.* Mr. B. Carter *oph.*	M F 1 Tu S 1 Tu S 1 M F 1 M W F 2 Tu W S 2	15 15 6 mths	21 0 3 years	42 0
Assistant Surgeons	Mr. T. Smith Mr. Willett Mr. Langton Mr. M. Baker	M Th 12.30 F 2.30 W S F 12.30 Tu F 12.30	..	..	..	Mr. Bellamy Mr. F. Clarke	W S Tu F	..	..	..	Mr. Rouse Mr. Pick	Tu S 12 M F 12	..	..	..
Physician-Accoucheur ..	Dr Greenhalgh	Th 1 30 S 9	..	..	..	Dr. J. W. Black	M W F	..	..	..	Dr. J. Clarke	Tu S 1 Th 12	..	..	..
CLINICAL MEDICINE ..	Dr. Black Dr. Harris Dr. Andrew Dr. Southey	.. Weekly	..	..	..	Dr. Headland Dr. A. J. Pollock Dr. Silver Dr. Green Mr. Powell	.. Tu 10	..	..	..	Dr. Fuller Dr. J. Ogle Dr. Barclay	M F 2 M 2 *sum.*	..	..	..
CLINICAL SURGERY ..	Mr. Skey Sir J. Paget Mr. Coote Mr. Holden Mr. Savory Mr. Callender	.. Weekly	..	..	..	Mr. Hancock Mr. Canton Mr. Hird	..	..	..	..	Mr. Hewett Mr. H. Lee Mr. Holmes	Tu 2 Tu 2 Tu 2 *sum.*	..	..	..
DISEASES OF WOMEN ..	Dr Greenhalgh	..	..	..	..	Dr. Black	..	..	..	..	Dr. Clarke	F 2	..	..	..
MORBID ANATOMY AND PATHOLOGY	Dr. Gee	Daily 1 Daily 2.30	..	..	..	Dr. T. H. Green	Tu F 3 *sum.*	2 2	..	..	Dr. Dickinson	Th 3 *win.*	5 5	..	..
OPHTHALMIC SURGERY ..	Mr. Power and Mr. Vernon	Tu Th S 2	..	..	..	..	..	..	..	..	Mr. B. Carter	W 10 *win.*	..	..	..
SUMMER SESSION.															
MATERIA MEDICA	Dr. Farre	Tu Th S 10 W 11.30	5 5	..	6 6	Dr. Powell	Tu Th S 12	3 3	..	..	Dr. Dickinson	M W F 3	4 4	..	5 5
BOTANY	Rev. G. Henslow	M W F 10	3 3	..	4 4	Dr. Dowson	Tu Th S 11	2 2	..	..	Mr. Child	Tu Th S 12	3 3	..	4 4
FORENSIC MEDICINE ..	Dr. R. Southey	M Th S 9	3 3	..	4 4	Dr. A. Pollock	M W F 4	2 2	..	..	Dr. Wadham	Tu Th 9 S 1	4 4	..	5 5
MIDWIFERY	Dr. Greenhalgh	Tu W F S 8.30 a.m.	5 5	..	6 6	Dr. J. W. Black	M W Th 3	3 3	..	..	Dr. J. Clarke	M W F S 9	5 5	..	6 6
PRACTICAL CHEMISTRY ..	Dr. Russell	M Tu F 11 to 1	2 2	..	..	Mr. Heaton Mr. Francis	M F 10—1	2 2	..	..	Dr. Noad	M W Th F 10	4 4	..	..
MICROSCOPIC ANATOMY ..	Mr. Symons	..	..	..	..	Dr. Silver	..	..	..	..	Dr. Cavafy	Tu Th S 10	..	..	..
OPHTHALMIC SURGERY ..	Mr. Power Mr Vernon *dem*	Tu W 12.45 W *win.* 2	2 2	..	3 3	..	..	..	..	..	Mr. B. Carter	W 10	..	..	..
COMPARATIVE ANATOMY..	Dr. Church	M Th 11	2 2	..	3 3	Mr. J. C. Galton	Tu Th 4	3 3	..	4 4	Dr. Cavafy	M F 4.30	..	..	..
DISEASES OF BRAIN, ETC. ..	..	..	..	..	..	..	..	..	..	..	Mr. L. Clarke	*Winter*	..	..	..
ORTHOPÆDIC SURGERY ..	Mr. Willett	F 12.30	..	..	..	..	..	..	..	..	Mr. Brodhurst	Tu 10	..	..	..
NATURAL PHILOSOPHY ..	Dr. Hensley	..	..	..	..	..	..	..	..	..	..	..	..	..	..
DENTAL SURGERY	Mr. Coleman	F 9 10.30 Jan. Feb. Mar.	2 2	..	3 3	Mr. G. A. Canton	..	..	..	..	Mr. Vasey	Tu 10	1 1	..	..
PSYCHOLOGICAL MEDICINE	Dr. Clayе Shaw	Th 11.45	2 2	..	3 3	Dr. Hunt	M 12	..	..	..	Dr. Blandford	Tu 3	..	..	..
PRACTICAL OR OPERATIVE SURGERY	Mr. Langton Mr. Marsh	..	4 4	..	..	..	..	..	..	..	Mr. Pick	..	4 4	..	..
PHYSIOLOGICAL CHEMISTRY	..	..	..	..	..	..	..	..	..	..	Mr. Moore	M Th F 10 *win.*	..	..	..
SKIN DISEASES	Dr. Duckworth	F 1.30	..	..	..	Dr. Beigel	Tu 2.30	..	..	..	Dr. Barclay	Th 2	..	..	..
DISEASES OF THE EAR ..	Mr. T. Smith	F 2.30	..	..	..	..	..	..	..	..	Mr. Dalby	Tu 3	..	..	..
Entrance to Lectures and Hosp. Practice for Examinations	..	..	..	..	110 5	..	..	..	..	74 3	Compounding	Fee ..	..	..	105 0
To the Hospital Practice only	..	..	..	..	..	..	..	..	..	31 10	..	..	..	..	94 10
To the Lectures only	..	..	..	..	..	..	..	..	..	49 7	..	..	..	..	37 16

LECTURES.	GUY'S. Lecturers.	Days and Hours.	Fees. 1 Course	2 Courses	Perpetual.	KING'S COLLEGE AND HOSPITAL. Lecturers.	Days and Hours.	Fees. 1 Course	2 Courses	Perpetual.	LONDON. Lecturers.	Days and Hours.	Fees. 1 Course	2 Courses	Perpetual.
WINTER SESSION.			£ s.	£ s.	£ s.			£ s.	£ s.	£ s.			£ s.	£ s.	£ s.
PRINCIPLES AND PRACTICE OF MEDICINE	Dr. Owen Rees Dr. Wilks	M W F 3	5 5	..	..	Dr G.Johnson	Tu 4 Th F 5	7 7	..	7 7	Dr. H. Davies Dr. Ramskill Dr. L. Down	M W Th 9.15 till Xmas, after Th 9.15 Tu F 4	5 5	..	6 6
SURGERY	Mr. Birkett Mr. C. Forster	Tu Th 3.30 F 10.30	5 5	..	..	Mr. Wood	M Tu W 5	6 6	..	7 7	Mr. Hutchinson	Tu F S 9	5 5	..	6 6
DESCRIPTIVE & SURGICAL ANATOMY	Mr. Durham Mr. Howse	Tu W Th F 9	5 5	..	..	Mr. Partridge	Daily except M 9	7 7	..	10 10	Mr. Rivington	M Tu Th F 3	5 5	..	8 8
ANATOMICAL DEMONSTRATIONS	Mr. Davies-Colley	Daily 9 to 4	5 5	..	..	Mr. Curnow Mr. Perrin	..	..	..	..	Mr. J. Adams Mr. W. Tay Mr. M'Carthy	Daily 10 to 3 exc. W. & S after.	5 5	..	8 8
GENERAL ANATOMY AND PHYSIOLOGY	Dr. Pavy	M W F 4.15	5 5	..	..	Dr. Rutherford	M W Th F 4	7 7	..	10 10	Dr. Fenwick Dr. Woodman	M W Th 4	4 4	..	6 6
CHEMISTRY	Dr. Debus Dr. Stevenson	Tu Th S 11	5 5	..	..	Mr. Bloxam	M W Th S 10.15	7 7	..	10 10	Dr. Letheby Dr. C. M. Tidy	M W F 10.30	7 7	..	7 7
HOSPITAL PRACTICE—						*In-patients*—									
Physicians	Dr. Owen Rees	Tu Th S 1.30	10 10	15 15	26 5	Dr. Johnson	M Th 2	10 10	15 15	21 0	Dr. Davies	M W S 8.30	6 6	12 12	21 0
	Dr. Habershou	Tu Th S 1.30	3	6		Dr. Beale	Tu S 2	6	18		Dr. A. Clark	M Th 1.30	6		
	Dr. Wilks	M Th 1.30	mths	mths		Dr. Garrod	W F 2	mths	mths		Dr. Ramskill	W S 1.30	mths	Period reqd. by Apoth. H.	
	Dr. Pavy	M F 1.30				*Out-patients*—					Dr. Down	Tu F 1.30			
	Dr. B. Hicks, *obs.*	W S 1.30				Dr. Guy					Dr. H. Jackson	M Th 1.30			
						Dr. A. Duffin	W S 1				Dr. Head, *obs.*	Tu F 1.30			
						Dr. Priestley *obs.*	Tu Th S 1.30								
Assistant-Physicians ..	Dr. Moxon	M 12	..	..	..	Dr. Yee	M Th 1	..	..	..	Dr. Mackenzie	W S 1.30			
	Dr. C. H. Fagge	Tu F 12				Dr. Kelly	Tu F 1				Dr. Sutton	M Th 1.30			
	Dr. Pye-Smith	W 12				Dr. Playfair *obs.*	Tu Th S 12.30				Dr. Fenwick	Tu F 1.30			
	Dr. J. J. Phillips, *obs.*	M F 1.30 Th S 12									Dr. Woodman Dr. Palfrey, *obs*	Tu F 1.30 W S 1.30			
Surgeons	Mr. Birkett	M Th 1.30	10 10	15 15	26 5	Sir W. Fergusson	Tu Th S 1.30	15 15	21 0	26 5	Mr. Hutchinson	M Th 1.30	8 8	18 18	26 5
	Mr. Poland	W S 1.30	3	6		Mr. Wood	M W F 1.30	6	21		Mr. Maunder	Tu F 1.30	6	18	3
	Mr. C. Forster	M Th 1.30	mths	mths		Mr. Wells, *oph.*	Tu Th S 1	mths	mths		Mr. Couper	W S 1.30	mths	mths	years
	Mr. Bryant	M Th 1.30									Mr. Rivington	M Th 1.30 S 9.30 *aur.*			
	Mr. Bader *oph.*	W S 1.30 M Tu F 12													
	Mr. Hinton *aur*	Tu F 12													
Assistant-Surgeons	Mr. A. Durham	W 12	..	..	..	Mr. H. Smith	M W F 1	..	..	..	Mr. J. Adams	Tu F 1.30 W S 9 *oph.*	..	..	..
	Mr. Howse	Tu Th 12				Mr. R. Bell	Tu Th S 1				Mr. W. Tay	M Th 1.30 W S 9 *oph.*			
	Mr. D.-Colley	S 12									Mr. M'Carthy	M Th 1.30			
	Eye Wards	W S 1.30									Mr Reeves	Tu S 1.30 S 9.30 *aur.*			
CLINICAL MEDICINE ..	*Winter*—	S 1.30	..	..	..	Dr. Johnson	Every alt. M 3 p.m.	..	..	..	Dr. A. Clark	M 2 Oct.	Nov.	..	..
	Dr. O. Rees										Dr. Ramskill	W 3.30 Jan.	Feb.		
	Dr. Habershou					Dr. Beale	Every alt. Tu 3				Dr. Davies	M 9 Feb.	Mar.		
	Dr. Wilks					Dr. Garrod	Every alt. F 3 p.m.				Dr. Down	Tu 2 Nov.	Dec.		
	Dr. Pavy										Dr. Sutton	Tu 2 May			
	Summer—	W 1.30				Dr. Priestley *obs.*	Every alt. Th 3				Dr. Jackson	M 2 June			
	Dr. Moxon										Dr. Mackenzie	S 3 July			
	Dr. Fagge														
	Dr. Pye-Smith														
CLINICAL SURGERY ..	Mr. Birkett	*Winter* W 1.30	..	..	..	Sir W. Fergusson	Every alt. Th 3 p.m.	..	..	..	By the Surgeons	..	..	..	..
	Mr. Poland					Mr. Wood	Every alt.								
	Mr. Forster					Mr. Wells, *oph.*	F 3 p.m.								
	Mr. Bryant						Every alt. M 3								
	Mr. Durham	*Summer* F 1.30													
	Mr. Howse														
	Mr. D.-Celley														
DISEASES OF WOMEN ..	Dr. Hicks	W 1.30	..	..	..	..	..	..	..	..	..	..	..	..	..
	Dr. Philips	M 3													
PATHOLOGY	Dr. Moxon	2.30 *win.*	..	..	..	Dr. Beale	Tu Th 4 s.	2 2	..	3 3	Dr. Sutton	Th 12.30	3 3	..	6 6
	Dr. Fagge	S 9 *sum.*													
SUMMER SESSION.															
MATERIA MEDICA	Dr. Habershon	Tu Th F 3	4 4	..	..	Dr. A. B. Garrod	Tu W Th F S a.m.	4 4	..	5 5	Dr. M. P. James	Tu Th F 4	3 3	..	4 4
BOTANY	Mr. Johnson	Tu Th S 11.30	4 4	..	..	Mr. Bentley	M Tu W F 12.15	4 4	..	5 5	Mr. Baker	M W F 11	3 3	..	4 4
FORENSIC MEDICINE ..	Dr. A. Taylor	Tu Th S 10	4 4	..	..	Dr. Guy	M Tu W F 12.15	4 4	..	5 5	Mr. Rodgers	Daily exc. Sat 10	3 3	..	4 4
											Dr. C. M. Tidy				
MIDWIFERY	Dr. B. Hicks	Tu W Th F 8.45 a.m.	5 5	..	..	Dr. W. O. Priestley	Tu W Th F 9	4 4	..	5 5	Dr. E. Head	M W Th F 3	4 4	..	6 6
PRACTICAL CHEMISTRY ..	Dr. Debus	M W F 10 to 1	4 4	..	..	Mr C. L. Bloxam	M W Th 10.15	4 4	..	7 7	Dr. Letheby	M Th S 9	2 2	..	..
						Mr Hartley *dem*									
COMPARATIVE ANATOMY..	Dr. Pye-Smith	M F 12.15	4 4	..	..	Mr. T. R. Jones	Tu F S 10.15	3 3	..	4 4	Dr. Woodman	M 4	3 3	..	4 4
PRACTICAL PHYSIOLOGY AND HISTOLOGY	Dr. Pye-Smith	M F 1	..	..	..	Dr. Rutherford Dr. Ferrier *dem*	Tu S 11.15 *win.*	5 5	..	8 8	Dr. Fenwick	..	3 3	..	4 4
NATURAL PHILOSOPHY ..	Dr. Stevenson Mr. D.-Colley	W 12 *win.*	4 4	..	..	..	..	..	..	..	..	..	..	..	..
OPERATIVE SURGERY ..	..	..	..	..	..	..	..	..	..	..	Mr. Maunder	..	..	..	..
DENTAL SURGERY	Mr. Moon Mr. Salter	..	5 5	..	..	Mr. Cartwright	Tu F 9, alt. Tu 10.30 cl.	6	..	8 8	Mr. Barrett	..	2 2	..	..
HYGIENE	Dr. H. Fagge	Th S 12.15	4 4	..	..	Dr. Guy	..	..	..	..	..	..	..	..	..
AURAL SURGERY	Mr. Hintou	..	..	..	..	..	..	..	..	..	Dr. Tidy and Mr. Rivington	..	2 2	..	3 3
CUTANEOUS DISEASES ..	Dr. H. Fagge	Tu 12 *win.*	..	..	..	..	..	..	..	..	..	..	..	..	..
OPHTHALMIC SURGERY ..	Mr. Poland Mr. Bader	M 8.45 a.m.	..	..	..	Mr. J. S. Wells	M S 9	3 3	..	..	Mr. J. Hutchinsou	Tu F S in June	2 2	..	3 3
DISEASES OF THE THROAT	..	..	..	..	..	..	..	..	..	..	Dr. Mackenzie	..	2 2	..	3 3
PSYCHOL. MEDICINE ..	Dr. Dixen	..	..	..	..	Dr E. Sheppard	..	..	..	..	..	..	..	..	..

Fee for the Lectures and Hospital Practice, Perpetual, £105.

Fees for the Lectures and Hospital Practice, £105; in one sum, £100.

Fees for the Lectures and Hospital Practice, for Licences, £90.

LECTURES.	ST. MARY'S.					MIDDLESEX.					ST. THOMAS'S.				
	Lecturers.	Days and Hours.	Fees. 1 Course	2 Courses	Perpetual.	Lecturers.	Days and Hours.	Fees. 1 Course	2 Courses	Perpetual.	Lecturers.	Days and Hours.	Fees. 1 Course	2 Courses	Perpetual.
WINTER SESSION.			£ s.	£ s.	£ s.			£ s.	£ s.	£ s.			£ s.	£ s.	£ s.
MEDICINE	Dr. Chambers Dr. Broadbent	M W Th 4	4 4	..	6 6	Dr. Greenhow	M W F 9	6 6	..	8 8	Dr. Peacock Dr. Murchison	M Th S 2	..	..	..
SURGERY	Mr. J. R. Lane Mr. Gascoyen	Tu F 4 W 3	4 4	..	6 6	Mr. De Morgan	Tu Th S 9	6 6	..	8 8	Mr. Le Gros Clark Mr. S. Jones	M W F 1	..	..	..
DESCRIPTIVE & SURGICAL ANATOMY	Mr. Norton	M Tu Th F 2.45	6 6	..	8 8	Dr. R. Liveing	M W Th F 10	8 8 10 10	.. ..	12 12 14 14	Mr. Mason Mr. Wagstaffe	Daily (ex. S) 3	..	..	..
ANATOMICAL DEMONSTRATIONS	Mr. E. Owen Mr. A. P. Boon, *Assist. Dem.*	Daily 9 to 5	3 3	..	..	Dr. R. Liveing	Daily 8 to 5	6 6	..	8 8	Mr. Rainey Mr. W. Anderson	Daily 9 to 3	..	..	..
PHYSIOLOGY	Dr. Lawson	M W S 12	3 3	..	4 4	Mr. Lowne	M W F 4	6 6	..	8 8	Dr. Ord Dr. J. Harley	M Tu F 4	..	..	..
EXPERIMENTAL PHYSIOLOGY	Dr. Nunneley	Tu W F 9	3 3	..	4 4	..	..	..	..	..	..	..	..	..	..
CHEMISTRY	Dr. C. R. A. Wright	M Tu Th F 10.15	5 5	..	7 7	Mr. Heisch	M Tu F S 11	6 6	..	8 8	Dr. Bernays	W Th F 10	..	..	..
HOSPITAL PRACTICE:															
Physicians	Dr. H. Jones Dr. Sieveking Dr. Broadbent Dr. A. Meadows, *obs.*	M Th 1.15 Tu F 1.15 W S 1.15 Tu F 10	7 7 6 mths	12 12 1 year	21 0	Dr. Goodfellow Dr. Thompson Dr. Greenhow Dr. J. Hall Davis, *obs.*	M W F 1.30 Tu Th S 1 Tu Th S 1 Tu W F S 1.30	5 5 3 mths	8 8 12 mths	..	Dr. Peacock Dr. Bristowe Dr. Clapton Dr. Murchison Dr. Barnes, *obs.*	From 8.30 to 9.30 a.m.	..	..	..
Assistant-Physicians	Dr. Cheadle Dr. Lawson Dr. Nunneley	Tu F 1 W S 1 M Th 1	..	..	..	Dr. Liveing Dr. Cayley Dr. J. Murray	Th S 4 M W 8.30 Tu 8.30 F 4	..	..	..	Dr. Stone Dr. Ord Dr. J. Harley Dr. Payne Dr. Gervis, *obs.*		..	..	..
Surgeons	Mr. Spencer Smith Mr. H. Walton Mr. J. Lane Mr. Gascoyen Mr. Allen, *aur.* Mr. H. Walton *oph.*	W S 1.15 W S 1.15 Tu F 1.15 M Th 1 Tu F 2 M Th 1 30	9 9 6 mths	21 0 1 year	31 0	Mr. De Morgan Mr. Nunn Mr. Hulke Mr. Hulke, *opht.*	M Th 1 Tu F 1 Th 1.30 M Th 1 Tu F 8.30	5 5 3 mths	8 8 1 year	..	Mr. Le Gros Clark Mr. Simon Mr. Sydney Jones Mr. Croft Mr. Liebreich, *oph.*		..	..	..
Assistant-Surgeons	Mr A. T. Norton Mr. E Owen Mr H. Hayward	W S 1 Tu F 1 Tu S 9 30	..	..	..	Mr. Lawson Mr. Morris	Th S 1 M F 1	..	..	..	Mr. MacCormac Mr. Mason Mr. H. Arnott		..	..	..
CLINICAL MEDICINE	Dr. H. Jones Dr. Sieveking Dr. Broadbent	M 2 Every alt. F 2 Every alt. S	..	..	..	The Physicians	F 3	..	..	..	By the Physicians	..	..	..	..
CLINICAL SURGERY	Mr. Spencer Smith Mr. H. Walton Mr. J. R Lane	Every alt. Th 2 Every alt. S 2 Every alt. Tu	..	..	..	The Surgeons	M 3	..	..	..	By the Surgeons	..	..	..	..
CLINICAL MIDWIFERY	Dr. Meadows	Every alt. F	..	..	..	..	..	..	..	..	Dr. Barnes	W 4	..	..	..
DISEASES OF WOMEN	..	..	..	..	..	Dr. J. H. Davis	Tu 10	..	..	..	..	..	..	..	..
MORBID ANATOMY AND PATHOLOGY	Dr. Cheadle	W S 10	2 2	..	..	Dr. Cayley	M Th 4	3 3	..	4 4	Dr. Payne	Daily 2	..	..	..
GEOGRAPHY OF DISEASE	..	..	..	..	..	..	..	..	..	..	Mr. Haviland	..	..	..	..
SUMMER SESSION.															
MATERIA MEDICA	Dr. Cheadle	Tu W F S 12	4 4	..	6 6	Dr Brunton	M W F 10	4 4	..	5 5	Dr. Clapton	..	..	..	..
BOTANY	Dr. Trimen	M W F 9	3 3	..	4 4	Dr. T. S. Cobbold	M W F 4	4 4	..	5 5	Dr. J. W. Hicks	..	..	..	..
FORENSIC MEDICINE	Dr. Randall	M Tu Th 10	3 3	..	4 4	Dr. Divers	Tu Th S 9	4 4	..	5 5	Dr. Stone and Dr. Gervis	..	..	..	..
MIDWIFERY	Dr. Meadows	Daily ex. S 9	4 4	..	6 6	Dr. J. Hall Davis	M W F 9	4 4	..	5 5	Dr. R. Barnes	..	..	..	..
PRACTICAL CHEMISTRY	Dr. C. R. A. Wright	M Th 11.30 S 9	3 3	..	..	Mr. Heisch	M W F 11	3 3	..	..	Dr. Bernays	..	..	..	..
COMPARATIVE ANATOMY	Mr. S. G. Mivart	W F 10	2 2	..	3 3	Dr. Murie	Tu Th 4	3 3	..	..	Mr. Stewart	..	..	..	..
OPHTHALMIC SURGERY	Mr. H. Walton	Th 2.45	2 2	..	..	Mr. Hulke	Alt. Tu 3	..	..	..	Mr. Liebreich	..	..	..	..
MENTAL DISEASES	..	..	..	..	..	..	..	..	..	..	Dr. W. R. Williams	..	..	..	..
PRACTICAL PHYSIOLOGY AND HISTOLOGY	..	..	..	..	..	Mr. Lowne	..	4 4	..	..	Dr. Ord Dr. J. Harley	..	..	..	..
AURAL SURGERY	Mr. Allen	F 3	2 2	..	..	..	..	..	..	..	..	..	..	..	..
PRACTICAL AND MANIPULATIVE SURGERY	..	..	..	..	..	Mr. Hulke Mr. Lawson Mr. Morris	..	6 6	..	..	Mr. Croft Mr. MacCormac	Tu 2 *winter*	..	..	..
DENTAL SURGERY	Mr. Hayward	Tu Th S 9.30	2 2	..	..	Mr. Tomes	..	5 5	..	..	Mr. Elliott	Tu F 11	..	..	..
DISEASES OF SKIN	Dr. Cheadle	Th 3	..	..	..	Dr. Liveing	..	..	..	..	..	..	..	..	..
GENERAL PATHOLOGY	..	..	..	..	..	..	..	..	..	..	Dr. Bristowe	Th 4 *win.*	..	..	..
PHYSICS AND NATURAL PHILOSOPHY	..	..	..	..	..	..	..	..	..	..	Dr. Stone	M 8 p.m. *winter*	..	..	..
PRACTICAL PHARMACY	..	..	3 3 mths	6 6 mths	10 10 12 mths	..	..	5 5 6 mths	8 8 12 mths	..	..	..	..	..	..

Fees for the Lectures and Hospital Practice, for the Licences of the Royal College of Physicians, Society of Apothecaries, and the Royal College of Surgeons

	£89 5s.,	or in	one	sum	84 0	..	..	..	..	90 0	Fee to Practice and all Lectures: £40 1st year, £40 2nd year, £20 3rd year, and £10 for each succeeding year; or £105 at one payment.
To the Lectures alone	..	..	..	..	52 0	..	..	..	..	..	
To the Hospital Practice alone	..	..	..	..	36 15	..	..	..	..	26 5	
Unlimited	..	£105, or in	one	sum	99 15	..	..	..	..	..	

LECTURES.	UNIVERSITY COLLEGE AND HOSPITAL.					WESTMINSTER.				
	Lecturers.	Days and Hours.	Fees. 1 Course	2 Courses	Perpetual.	Lecturers.	Days and Hours.	Fees. 1 Course	2 Courses	Perpetual.
WINTER SESSION.			£ s. d.	£ s.	£ s			£ s.	£ s.	£ s.
MEDICINE	Dr. J. R. Reynold	Day. ex. M 9	6 6 0	..	9 9	Dr. Anstie	M Th F 3	5 0	..	7 0
SURGERY	Mr. Marshall	Tu W F 4	5 5 0	..	6 6	Mr. Holthouse	Tu W Th 3	5 0	..	7 0
DESCRIPTIVE ANATOMY	Mr. Ellis	Daily 12	7 7 0	..	10 10	Mr. Pearse	Tu W Th F 9	5 0	..	7 0
DEMONSTRATIONS	Mr. Ellis Mr. G. D. Thane Mr. W. Price	Daily				Mr. Pearse Mr. Davy	Daily 10—1	2 0	...	3 0
PHYSIOLOGY AND GENERAL ANATOMY	Dr. Sharpey	Daily ex. S 10	7 7 0	..	9 9	Dr. Maclure	M W F 4 Th 12	5 0	..	7 0
CHEMISTRY	Dr. Williamson	Daily ex. S 11	6 6 0	..	9 9	Dr. Dupré	Tu Th 3 F 3.30	5 0	..	7 0
HOSPITAL PRACTICE—										
Physicians	Sir W. Jenner, Bart., M.D. Dr. Reynolds Dr. W. Fox Dr. S. Ringer Dr. H. C. Bastian Dr. Grailly Hewitt, *obs.* Dr. T. Fox, Skin Infirmary	Daily 1 & 2 Three times a week S 9	..	..	..	Dr. Basham Dr. Fincham Dr. Radcliffe Dr. F. Bird, *obs.*	M Th 1.30 W S 1.30 Tu F 1.30 Tu F 3	8 0 6 months	12 0 1 year	20 0
Assistant-Physicians	Dr. F. T. Roberts	..	..	..	..	Dr. Anstie Dr. Gibb Dr. Sturges Dr. Potter, *asst. obs.*	M Th 1 Tu F 1 W S 1 Tu F 1	8 0 6 months	12 0 1 year	20 0
Surgeons	Mr. Erichsen Mr. Marshall Sir H. Thompson Mr. Berkeley Hill Mr. C. Heath Mr. W. Jones, *oph.*	Daily 1 & 2 M W F 1	Hospital Practice and Clinical Instruction: Six months, £7; one year, £10; perpetual, £27	..	..	Mr. Holt Mr. Holthouse Mr. Pearse Mr. Cowell *assist. surgs.* Mr. Davey	M Th 1.30 W S 1.30 M Th 1 Tu F 1 W S 1			
CLINICAL MEDICINE	Sir W. Jenner Dr. Reynolds Dr. W. Fox Dr. Roberts, *assist. prof.* Dr. T. Fox, *skin dis.*	M Tu Th F 1—3 Once a fortnight		..	..	By the Physicians	Weekly	..	..	..
CLINICAL SURGERY	Mr. Erichsen Mr. Marshall Sir H. Thompson Mr. W. Jones, *oph.*	M W S 1—3 Fortnightly		..	..	By the Surgeons	Weekly	..	..	..
CLINICAL MIDWIFERY	Dr. G. Hewitt	Fortnightly		..	..			..	..	..
MORBID ANATOMY	Dr. C. Bastian	M W F 4 *sum.*	4 4 0	..	6 6	Dr. Lee Mr. Davy	W., Oct., Nov., Dec.	..	..	..
SUMMER SESSION.										
MATERIA MEDICA	Dr. Ringer	Daily exc. M 10	4 4 0	..	6 6	Dr. Sturges	M Th F 3	3 0	..	4 0
BOTANY	Mr. Oliver	Daily exc. S 8	3 3 0	..	4 4	Mr. Bennett	M W F 9.30	3 0	..	4 0
FORENSIC MEDICINE	Dr. Maudsley	Tu W Th F 10	3 3 0	..	4 4	Dr. Gibb Dr. Lee	Tu W F 3	3 0	..	4 0
MIDWIFERY	Dr. Grailly Hewitt	Tu W F S	4 4 0	..	6 6	Dr. Bird	Tu Th F 4	4 0	..	5 0
PRACTICAL CHEMISTRY	Dr. Williamson	Tu W Th F 11	4 4 0	..	7 7	Dr. Dupré	Tu Th 10	2 0	..	..
COMPARATIVE ANATOMY	Dr. Grant, *with Zoology*	Daily except S 3, from Oct. to June	8 8 0	..	9 9	Mr. Carter Blake	W S 11	2 0	..	..
PRACTICAL AND OPERATIVE SURGERY	Mr. B. Hill Mr. M. Beck Mr. C. Heath, *oper.*	M Th 4 *win.* Daily in April	4 4 0 4 4 0	..	2 2	Mr. Davy	Tu Th 9	..	..	..
DENTAL SURGERY	Mr. Ibbetson	M Th 4 in Jan.	2 2 0	..	..	Mr. Walker	W 9.30 *win.*	..	..	..
HYGIENE	Mr. Corfield	Tu F 12	1 1 0	..	3 3	..	..	..	..	..
NATURAL PHILOSOPHY	Prof. Foster	M W F 4 *win.*	6 6 0	..	..	Mr. Brooke	Tu 3 *sum.*	1 0	..	..
OPHTHALMIC SURGERY	Mr. W. Jones	Tu Th	2 2 0	..	..	..	..	..	..	..
PALÆO-ZOOLOGY	Dr. Grant	Daily except S 3 *sum.*	1 1 0	..	..	..	..	..	..	..
HISTOLOGY AND PRACTICAL PHYSIOLOGY	Dr. B. Sanderson	Daily (ex. S) 9 S 11 *win.*	6 6 0	..	9 9	..	..	..	..	..
MENTAL DISEASES	Dr. Sankey	Tu W Th 11	2 2 6	..	..	..	..	..	..	..
PRACTICAL PHARMACY	Mr. Martindale	..	3 3 0	..	5 5	..	..	..	..	..
			3 months		6 months					
Fees for the Lectures and Hospital Practice for the Licentiates of the Royal College of Physicians, Society of Apothecaries, and M.R.C.S.	1st year, £47 16s.;	2nd, £38 7s.;	3rd, £18	11s.	104 14	..	..	..	..	70 0
For the Hospital Practice alone	..	..	..	..	27 0	..	..	..	..	26 0
Perpetual to Lectures and Hospital Practice	..	..	..	..	..	..	..	..	..	75 0

ADDITIONAL INFORMATION RESPECTING THE METROPOLITAN SCHOOLS, ETC.

ST. BARTHOLOMEW'S HOSPITAL AND COLLEGE.

This Hospital contains 676 beds.

Whole fee for attendance on Lectures and Hospital Practice 105 guineas, payable by instalments, or a single payment of 100 guineas. Payment in either of these ways entitles a Student to a perpetual ticket.

Four House-Physicians and four House-Surgeons are appointed annually, on the payment of a nominal fee, and are provided with rooms by the Hospital authorities. The Senior Midwifery Assistant is appointed for twelve months, and is eligible for re-election for a second twelvemonth. The Junior Midwifery Assistant is appointed without fee for six months, and is provided with rooms by the Hospital authorities. The Ophthalmic House-Surgeon is appointed for six months, and is eligible for re-election for a second term of six months.

The Clinical Clerks to the Physicians and to the Physician-Accoucheur, the Clerks to the Assistant-Physicians and Assistant-Surgeons, and the Dressers in the Special Departments, are chosen from the diligent Students. Sixteen Ward Dresserships are annually given to the Students of the second year who pass the best examinations in the subjects of Study of the first and second years, or who may be otherwise specially recommended. Other Dresserships may be obtained by payment of the usual fees.

Courses of Practical Surgery and of Practical Physiology have been instituted in accordance with recent regulations of the Royal College of Surgeons.

Special Departments:—Diseases of the Skin (Dr. Duckworth, Friday, at 1.30), Diseases of the Eye (Mr. Power and Mr. Vernon, Tuesday, Thursday, and Saturday, at 1.30), Diseases of the Ear (Mr. Thomas Smith, Friday, at 2.30), Orthopædic Surgery (Mr. Willett, Friday, at 12.30), Dental Surgery (Mr. Coleman, Friday, at 9 a.m.).

The following Scholarships and Prizes are awarded:—Senior Scholarship of the value of £50, Medicine, Surgery, and Midwifery. Senior Scholarship of the value of £50, Anatomy, Physiology, and Botany. Scholarships of the value of £25 each will be awarded to those Students who are placed second in the Examinations for the Senior Scholarships. Junior Scholarships of the value of £50, £30, and £20 are awarded after the General Examination at the end of the Summer and Winter Sessions. The Jeaffreson Exhibition, founded 1868, to the value of £20, and tenable for two years, is awarded at the commencement of each Winter Session to the Student who passes the best Examination in the subjects of Preliminary Education. Wix Prize, founded 1842, is awarded for the best Essay on "The Connexion between Revealed Religion and Medical Science." Hichens Prize, founded 1851. Subject of Examination — Bishop Butler's Analogy. Bentley Prize, founded 1842, for the best Report of Surgical cases occurring in the Wards of the Hospital during the previous year. It is expected that the Reports will comprise the Histories, Progress, Treatment, and Results of not less than Twelve Cases, with observations thereupon. Foster Prize. Subject of Examination — Practical Anatomy; Senior. Treasurer's Prize. Subject of Examination—Practical Anatomy; Junior. The Kirkes Gold Medal. Subject of Examination—Clinical Medicine.

Special Classes are held for the Matriculation, for the Preliminary Scientific, and for other Examinations at the London University. Students preparing for other Examining Boards are arranged in classes and examined by the Lecturers and Demonstrators.

A College for Resident Students exists in connexion with the Hospital. Resident Warden, Mr. Morrant Baker.

All communications to be addressed to the Warden of the College, St. Bartholomew's Hospital.

CHARING-CROSS HOSPITAL.

Gentlemen are received—1st. As Matriculated Students, or those who enter for their entire Medical Education at the Charing-cross Hospital Medical College. 2ndly. As occasional Students, or those who enter to one or more particular classes. Matriculated Students alone have the privilege of filling the offices of Registrar, Pathological Assistant, Assistant-Demonstrator, Clinical Clerks, Dressers, Dentist's Assistant, Resident Medical Officer, Resident Surgical Officer, and Physician-Accoucheur's Assistant, and of becoming Candidates for the Scholarships, Medals, and various general Class Prizes.

The Fee for the Courses of Lectures and Hospital Practice required by the University of London, the Royal College of Physicians, the Royal College of Surgeons, and the Society of Apothecaries, to Non-Matriculated Students, is £80 17s.; for the Hospital Practice alone, £31 10s. The Fee to Matriculated Students for the full period of the Lectures and Hospital Practice required by the Royal College of Physicians, the Royal College of Surgeons, and the Society of Apothecaries, is £74 3s.; for the Hospital Practice alone, £28 19s. 8d. The Fee for Matriculation is £2 2s., to be paid on entering. Payment of Fees may be made in five instalments.

The office of Registrar to the Hospital, and Pathological Registrar to the School, tenable for two or three years, for the efficient performance of the duties appertaining to which the Council award an annual stipend, is open to all Matriculated Students of the Hospital who have obtained their qualifications, as are also the offices of House-Physician, House-Surgeon, and Resident Physician-Accoucheur's Assistant.

Scholarships, Medals, and Prizes.—Scholarships: The Llewellyn Scholarship of £25 is open to all Matriculated Students who have just completed their second academical year. The Golding Scholarship of £15 a year is open to all Matriculated Students who have just completed their first academical year. The following Medals are awarded annually:—The Gold Medal for General Proficiency; the Governors' Clinical Silver Medal; Silver Class Medals, on all the subjects of the Lectures; Bronze Class Medals, on all the subjects of the Lectures.

Free Scholarships.—Candidates for Free Scholarships are required to be sons of Professional men of reduced circumstances and position, or of gentlemen in a corresponding station of society, and are to have had a classical education fitting them for the Medical Profession. They must have already commenced their Medical studies, and, from unforeseen circumstances, be unable to complete their Professional education without such assistance. They are to send in their applications and testimonials before September 1.

ST. GEORGE'S HOSPITAL.

Perpetual pupils pay at the time of entry a compounding fee of £105. They are admitted to the Practice of the Physicians and Surgeons, to all the Lectures (except Practical Chemistry), to compete for all Prizes and Exhibitions, to hold the appointments of House-Physician, House-Surgeon, Assistant House-Physician, Assistant House-Surgeon, Ophthalmic and Orthopædic Assistants, and Clinical Clerk and Dresser for two periods of three months each.

Gentlemen are admitted to the Hospital Practice and Lectures required for the Licence of the College of Physicians, for the Diploma of Member of the College of Surgeons, and for the Licence of the Society of Apothecaries (with the exception of Practical Chemistry), on payment of the following fees—viz., £42 for the first year of study, £42 for the second year of study, and £10 10s. for each succeeding year. By payment of these fees pupils are entitled to hold the office of Clinical Clerk and Dresser, and to become Candidates for the Offices of Medical and Surgical Registrars, Demonstrator of Anatomy and Curator of the Museum, to each of which offices a salary of £50 is attached. An Obstetric Assistant, with a salary of £100 and board and residence, is annually elected from amongst those Students who have obtained a legal qualification to practise. Pupils may also enter to the Hospital Practice and Lectures separately.

The appointments of House-Physician and House-Surgeon are made every six months, are four in number, and are tenable for one year. These appointments are awarded after Examination, and are given without fee or payment, each officer being lodged and boarded at the expense of the Governors of the Hospital. The whole of the patients are under the charge of these Officers in the absence of the Physicians and Surgeons.

Exhibitions and Prizes.—"The William Brown Exhibition," of £40 per annum, tenable for three years: This Exhibition is competed for by perpetual pupils who have commenced their third, but not completed their fourth Winter Session. It will be "bestowed on the Candidate who shall show the best general fitness for the exercise of the Medical Profession, and whose moral conduct shall in all respects be satisfactory." The Treasurer's Clinical Prize of £10 10s., the gift of A. Shaw Stewart, Esq. Sir Charles Clarke's Prize for Good Conduct: The interest of £200 Consols, to be awarded annually to the Student of the Hospital "who, by reason of his general good conduct during the preceding year, should be considered the most deserving." The Thompson Medal: A Silver Medal to be awarded annually for the best Clinical Report of Medical and Surgical Cases observed in the Hospital during the preceding twelve months. Sir Benjamin Brodie's Clinical Prize in Surgery will be awarded to the perpetual pupil of the Hospital who shall have delivered to the Surgeons the best report of not more than twenty Surgical cases which have occurred in the Hospital during the preceding twelve months. Dr. Acland's Clinical Prize in Medicine will be awarded to the perpetual pupil of the Hospital who shall produce the best report of not more than twenty Medical cases which have occurred in the Hospital during the preceding twelve months. The Henry Charles Johnson Memorial Prize in Anatomy will be awarded to that pupil who shall, in the judgment of the Medical School Committee, exhibit the greatest proficiency in Practical Anatomy. General Proficiency Prizes:—To pupils in their first year, £10 10s.; to pupils in their second year, £10 10s.; to pupils in their third year, £10 10s.

The studies of all the Students are superintended by a Medical Tutor specially appointed for that purpose.

For further particulars apply to Dr. Wadham, Dean of the School.

GUY'S HOSPITAL.

This Hospital contains nearly 720 beds.

Voluntary Examinations are held at four periods of the Students' Course, as follows:—1st. At entrance, commencing on October 5, in Elementary Classics, Ancient and Modern History, and Mathematics. The Candidate who most distinguishes himself receives £25; the second Candidate, £20; the third, £15. 2nd. At the end of the first Sessional year, in all the subjects of that year:—one sum of £30, another of

£25, and a third of £10 10s. (presented by one of the Governors). 3rd. At the end of the second Sessional year, in the subjects which form the Course of Study up to that time—£35 and £30. 4th. At the end of the third Sessional year, in all the subjects of the Curriculum—£40 and £35. Honorary Certificates are also given to Candidates who pass creditable Examinations.

Special Examinations.—Two Gold Medals are given annually by the Treasurer to Students who have completed their third, and not exceeded their fourth year—the one for Clinical Medicine, the other for Clinical Surgery.

The Fees for Hospital Practice and Lectures are as follows:—For the First Year, £40; for the Second Year, £20; and £10 for every succeeding year of attendance. The one payment of £100 entitles a Student to a perpetual ticket. Materials used in Practical Courses are charged extra. Payment of 100 guineas entitles to a perpetual ticket.

Students are selected according to merit for the following Appointments:—House-Physicians, House-Surgeons, and Obstetric Residents (Senior and Junior), Surgeon's Dressers, Clinical Assistants, Dressers in the Eye Wards, Post-mortem Clerks, Obstetric Out-patient Clerks, Assistant-Physician's Clerks, Assistant-Surgeon's Dressers, Dressers in the Surgery, Dental Surgeon's Dressers, Aural Surgeon's Dressers, Medical Clinical Clerks, Surgical Clinical Clerks, Extern Obstetric Attendants, Assistant-Surgeon's Clerks, Clerks in the Electrifying Room.

The Registrars and the Demonstrators in Anatomy and Chemistry assist the pupils in their studies.

For further information, apply to Mr. Stocker, Apothecary to the Hospital.

KING'S COLLEGE.

The fees, amounting to £100, may be paid either in one sum on Matriculation or at the commencement of each Winter Session. Students are, however, recommended to add £2 2s. for a second Course of Chemistry, as well as the fee for attendance on the Medical Tutor's class for one year—viz., £3 3s. All resident Students are required to attend the Tutor (Dr. E. B. Baxter) during their first year.

Resident Medical Officers, Clinical Clerks, and Dressers are chosen by examination from Matriculated Students who are Pupils of the Hospital.

Scholarships.—Warneford Scholarships: The sum of £200 is set apart annually for Scholarships in the Medical Department—viz., "For the encouragement of the previous education of Medical Students," two Scholarships of £25 per annum for three years; "For the encouragement of resident Medical Students," one Scholarship of £25 per annum for two years. College Scholarships: The following are given every year to Matriculated Students of this department:—1. One of £40 for two years, open to Students of the third and fourth year; 2. One of £30 for one year, open to Students of the second year; 3. One of £20 for one year, open to Students of the first year. Daniell Scholarship: £20, tenable for two years, is open to every Student of the College who has worked in the Laboratory for at least six months. Sambrooke Registrarships: Two of £30 every year.

Prizes.—Leathes Prizes: Bible and Prayer-book to two Matriculated Medical Students. Warneford Prizes: £40 is expended in the purchase of Medals and Books as Prizes to two Matriculated Medical Students. Class Prizes are awarded annually for proficiency in each subject of Study; these consist of books of the value of £3. Two Medical Clinical Prizes, one of £3 for the Winter Session and the other of £2 for the Summer Session; and two Surgical Clinical Prizes of the same value are given for attendance at the Hospital. Todd Medical Clinical Prize: This Prize was founded in memory of the late Dr. Todd. It consists of a Bronze Medal and Books to the value of £4 4s.

Residence of Students.—A limited number may reside within the College.

For further information apply to Professor Bentley, Dean of the Medical Department.

ST. MARY'S HOSPITAL.

The Hospital contains 170 beds—68 Medical, and 102 Surgical. There are Special Departments for the Diseases of Women and Children; and for Diseases of the Eye, the Ear, the Skin, and the Throat.

Resident Medical Officers, Clinical Clerks, and Dressers.—All these appointments are open to the Pupils without additional fee, and are held in succession, so as to secure a complete system of Clinical training. Five of these appointments exceed in value an equal number of Scholarships of £50 each. All General Students are required to perform the duties of Clinical Clerks and Dressers for a period of six months during the last two years of their Curriculum. Students of the third year are appointed to assist the Physicians and Surgeons in charge of the out-patients. A Resident Registrarship within the Hospital has been created, with a salary of £100 a year and Dispensary fees, tenable for one year *and open to re-election*, preference being given to past House-Surgeons and Perpetual Pupils.

Scholarships, Prizes, etc.—A Scholarship in Natural Science, of the annual value of £40, tenable for three years, and an Exhibition in Natural Science of £20, for one year, will be awarded by open competitive Examination immediately before the commencement of each Winter Session. A Scholarship in Anatomy, of the annual value of £20 (the holder of which will be styled Assistant-Demonstrator, and assist in the teaching of Practical Anatomy), will be offered for competition amongst those Students who have completed their second Winter Session; and a Scholarship in Pathology, of the value of £20 (the holder of which will be styled Assistant-Curator), for those Students who have completed their third Winter Session. Examinations for Prizes are held at the termination of each Session in the various Classes for Students of the first, second, and third year. Two Prosectors are appointed annually, who each receive a Certificate and £5 for their services in the Dissecting-room.

The Entrance Fees for General Students may be paid in instalments by arrangement with the Dean of the School. A fee of £1 1s. is required to be paid to the Library and Reading-room. Instruction in Vaccination can be obtained; fee £1 1s.

Further information may be obtained from Dr. Cheadle, Dean of the School, or from Mr. Knott, the Registrar, at the Hospital.

THE LONDON HOSPITAL.

The next Winter Session will commence on Monday, October 2, 1871.

During the Winter Session, Lectures on Anatomy, Physiology, Chemistry, Pathology and Morbid Anatomy, Medicine, Surgery, and Dental Surgery will be given. Clinical Lectures and Clinical Instruction will be regularly and systematically delivered on the Cases occurring both in the Clinical and in the ordinary Medical and Surgical Wards. There will be Clinical Lectures on the Cases in the Wards for Diseases of Women, and Clinical Instruction in the Obstetric Out-patient Rooms, as well as in the Special Departments for Diseases of the Eye, Ear, and Skin.

The Summer Session will begin on Wednesday, May 1, and terminate on Tuesday, July 31, 1872.

During the Summer Session, Lectures on Midwifery and Diseases of Women, Materia Medica, Botany, Comparative Anatomy, Practical Histology and the Use of the Microscope, Pathology and Morbid Anatomy, Practical Chemistry, Forensic Medicine, Syphilis, Diseases of the Eye and Use of the Ophthalmoscope, Diseases of the Skin, Diseases of the Throat and Use of the Laryngoscope, Acoustics, and Diseases of the Ear will be given.

Clinical Lectures and Clinical Instruction will be delivered, as in the Winter Session, in connexion with every branch of Practice.

Table of Fees.—General fee for Perpetual Attendance on all the Lectures, and for attendance on Medical and Surgical Practice, qualifying for Examination at most of the Medical and Surgical Boards, £90; Composition fee for Gentlemen entering at or before the beginning of their Second Winter Session, their first year having been spent elsewhere, £70; Perpetual fee for Lectures and Hospital Practice, £100; Perpetual fees for Lectures alone, £50; Perpetual fee for Hospital Practice alone, £50. Extra Fees:—Practical Chemistry (for Apparatus, &c.), £2 2s.; Subscription to the Library (compulsory), £1 1s. *Note.*—The General fee and the Perpetual fee are payable in two instalments of £45 and £50 each respectively at the commencement of each of the first two years of attendance. If preferred, the *Perpetual* fee can be paid in three instalments—£45 at the commencement of each of the first two years of attendance, and £10 at the commencement of the third year. The Composition fee is payable in two instalments of £35.

Scholarships and Prizes.—Seven Scholarships will be offered for competition during the ensuing Winter Session. The two Buxton Scholarships will be awarded in October to the Students who distinguish themselves most in the subjects appointed by the General Council of Medical Education and Registration as the subjects of the Preliminary Examinations. 1. A Scholarship, value £30, to the Student placed first in the

Examination. 2. A Scholarship, value £20, to the Student placed second in the Examination. 3. A Scholarship, value £20, will be awarded to the First Year Student who shall pass in December, 1871, the best Examination in Human Anatomy. 4. A Scholarship, value £25, will be awarded to the First Year or Second Year Student who shall pass at the end of the Winter Session the best Examination in Anatomy, Physiology, and Chemistry. 5. A Hospital Scholarship, value £20, for proficiency and zeal in Clinical Medicine. 6. A Hospital Scholarship, value £20, for proficiency and zeal in Clinical Surgery. 7. A Hospital Scholarship, value £20, for proficiency and zeal in Clinical Obstetrics. The Duckworth Nelson Prize, value £10, will be awarded by competition at the end of the Winter Session, 1873, and will be open to all Students who have not completed their education. The subjects of Examination will be Practical Medicine and Surgery. Money Prizes to the value of £60 per annum are awarded by the House Committee to the most meritorious of the Dressers in the Out-patient Rooms. The special conditions may be learnt on inquiry. The Offices of Resident Medical Officer, Junior Resident Medical Officer, Four Medical Assistants, Clinical Clerks, Resident Accoucheur, Maternity Pupils, Four House-Surgeons, Surgical Dressing Pupils, Two Medical Clinical Assistants, Two Surgical Clinical Assistants, Medical Registrar, Surgical Registrar, Assistant-Dentist, Post-mortem Clerks, and Two Prosectors of Anatomy are open to the Students.

Communications addressed to the Dean or Vice-Dean of the School, at the London Hospital Medical College, Turner-street, Mile-end, London, E., will receive immediate attention. Information may be obtained from Mr. John Adams, Treasurer, 10, Finsbury-circus, E.C.; Mr. Jonathan Hutchinson, Senior Surgeon, 4, Finsbury-circus, E.C.; Mr. Rivington, Dean of the School, 22, Finsbury-square, E.C.; Mr. Waren Tay, Vice-Dean, 10, Finsbury-pavement, E.C.; Dr. Down, Treasurer, 37, Welbeck-street, W.; Dr. Samuel Fenwick, Harley-street, W.; from any member of the Hospital Staff, and from the Lecturers at the College.

MIDDLESEX HOSPITAL.

This Hospital contains upwards of 300 beds, of which 185 are for Surgical, and 120 for Medical cases. There is a special department for Cancer cases, affording accommodation for thirty-three in-patients, whose period of residence in the Hospital is unlimited. Wards are also appropriated for the reception of cases of Uterine Disease and of Syphilis, and beds are set apart for patients from Diseases of the Eye.

Special attention is bestowed on the Clinical Instruction of the Students, both in the wards and out-patient rooms. Classes, open to all the Students, are held for practical instruction in the microscopic examination of healthy and diseased tissues, and also in the application of bandages and other Surgical apparatus. Students are allowed to take out to read at their own homes books from the Library of the School. Three Clinical Prizes, including the Governors' Prize of twenty guineas, are annually awarded to those Students who pass the most satisfactory Examination at the bedside and in the post-mortem room. Class Prizes are also given, and six resident Clinical Appointments are annually awarded, after competitive examination, to Students who have completed their education, and complied with the Regulations of the School. The officers thus appointed reside and board in the Hospital free of expense.

The College Tutor assists all general Students free of charge, especially those who are preparing for Examination, and his daily instruction is arranged with a view to avoid the necessity of Students obtaining any private teaching apart from that of the Medical School.

The fee for attendance on the Hospital Practice and Lectures required by the Colleges of Physicians and Surgeons and the Society of Apothecaries is £90, which may be paid by instalments.

ST. THOMAS'S HOSPITAL.

The admission fee to Hospital Practice and all the Lectures is £40 for the first year, and a similar sum for the second, £20 for the third, and £10 for each succeeding year; or £105 at one payment for unlimited attendance. Special entries may be made to any Course of Lectures, or to the Hospital Practice.

There are special departments for Diseases of the Eye, Diseases of Women and Children, Vaccination, Diseases of the Skin, Diseases of the Teeth, and Mental Diseases.

Prizes and Appointments.—The William Tite Scholarship, awarded every third year: A Scholarship has been founded by Sir W. Tite, M.P., F.R.S., the proceeds of £1000 Consols, tenable for three years, on proof of continued residence and good conduct. Preference, in case of equality between Students, to be given to the son of a Medical man, and more particularly of one who has been educated at St. Thomas's Hospital, or is in practice at Bath. To the three most distinguished pupils for general proficiency, the following Prizes are awarded:—First Year's Students—Winter, £20, £15, £10; Summer, £15, £10, £5. Second Year—Winter, £20, £15, £10; Summer, £15, £10, £5. Clinical and Obstetrical Clerks and Dressers are selected according to merit from among Second Year's Students. The Dressers and Obstetrical Clerks are provided with rooms and commons during their period of attendance in the Hospital free of expense. Third year's Students—Winter, £20, £15, £10. The Cheselden Medal, founded by George Vaughan, Esq., is awarded in respect of a Special Examination in Surgery and Surgical Anatomy. The Treasurer's Gold Medal is given annually for general proficiency and good conduct. The Grainger Testimonial Prize, of the value of £20, will be awarded biennially to the Third or Fourth Year's Students for a Physiological Essay, to be illustrated by preparations.

The House-Physicians, the House-Surgeons, and Resident Accoucheur are chosen from gentlemen who have obtained their Professional Diplomas. All are provided with rooms and commons. The two Offices of Medical Registrar and Surgical Registrar are from time to time filled from among gentlemen who have completed their studies in the School. Each Registrar, on completing his Annual Report to the satisfaction of the Physicians and Surgeons, receives a gratuity of £80.

The Tutor in Arts is Mr. S. Hague, LL.B., B.A., Lond.

For further information, apply to Mr. Whitfield, Medical Secretary, St. Thomas's Hospital, London, S.E.

UNIVERSITY COLLEGE, LONDON.

The fees for Lectures and Hospital Practice required by the Colleges of Physicians and Surgeons and the Society of Apothecaries during the Student's entire course amount to £104 14s., which may be paid as follows:—First Winter, £36 5s.; First Summer, £11 11s. Second Winter, £31; Second Summer, £7 7s. Third Winter, £11 4s.; Third Summer, £7 7s.

Entrance Exhibitions.—Three Entrance Exhibitions, of the respective values of £30, £20, and £10 per annum, tenable for two years, are annually awarded, upon examination by printed papers, to gentlemen who are about to commence their first winter's attendance in a Medical School. The subjects of the Examinations are:—Classics, Elementary Mathematics, Natural Philosophy, and either French or German at the option of the Candidate. The next Examination will take place at the College on September 28 and 29. Notice of intention to compete, with a statement of the modern language in which the Candidate wishes to be examined, must be left addressed to the Secretary, not later than 2 p.m. on Saturday, Sept. 23, at the office of the College, where the Regulations may be obtained.

Scholarships and Exhibitions.—The Atkinson Morley Surgical Scholarship, of £45, tenable for three years, is annually awarded to the Student who, upon examination, is found to possess the greatest proficiency in the Theory and Practice of Surgery. The Sharpey Physiological Scholarship, of about £95 per annum, tenable for three years, for proficiency in Biological Science. Filliter Exhibition: A Prize of £30 is awarded annually, in July, to the most proficient Student in the class of Pathological Anatomy.

Medals and Prizes.—Dr. Fellowes's Clinical Medals, one Gold and one Silver, awarded at the end of the Winter and of the Summer Session to Pupils who have most distinguished themselves by reports and observations on the Medical cases in the Hospital. The Liston Gold Medal is awarded at the end of the Summer Session to the Pupil who has most distinguished himself by reports and observations on the Surgical cases in the Hospital. The Alexander Bruce Gold Medal will be awarded for proficiency in Pathology and Surgery. The Cluff Memorial Prize is awarded every other year for proficiency in Anatomy, Physiology, and Chemistry.

Class Medals and Prizes.—Besides the above, Gold and Silver Medals or other Prizes are awarded in each class.

The Appointment of Assistant-Curator to the Museum of Anatomy and Pathology, of Demonstrators of Anatomy, of Resident Medical Officer to the Hospital, and of Surgical Registrar—all of which have emoluments attached to them—are almost invariably conferred upon Students of the College.

Offices in the Hospital tenable by Students.—Physicians' Assistants, House-Surgeons, Midwifery Assistants, Physicians' Clerks, Surgeons' Dressers, Ward Clerks, and Ophthalmic Surgeons' Assistants are selected from the Pupils, without additional fees.

Further information and detailed prospectuses may be obtained at the office of University College, Gower-street, W.C.

WESTMINSTER HOSPITAL.

The entry fee to Lectures and Hospital Practice required by the College of Physicians and Surgeons and the Society of Apothecaries may be paid in one sum of £70, or in three instalments—£35 at the commencement of the first year, and £30 and £10 respectively at the commencement of the second and third years.

In addition to the practice of the Hospital, which contains 191 beds, the pupils of this school are admitted to the practice of the Westminster Ophthalmic Hospital, and to that of the National Hospital for Epilepsy and Paralysis.

Prize Appointments.—A House-Physician and House-Surgeon are appointed annually, by examination, from amongst the senior students, without the payment of any fee; and these officers are provided with board and lodging free of expense. There are Medical and Surgical Registrars, each of whom receives a salary of about £50. A Medical Obstetric Assistant boards and resides at the Hospital without fee.

Prizes.—In addition to the appointments above enumerated, there is a Scholarship of twenty guineas, in Anatomy and Physiology, a Prize of the value of £20 for general proficiency, two Clinical Prizes of the value of five guineas each. Prizes are also awarded to the most meritorious Students of the first and second years.

Full particulars as to courses of lectures and mode of instruction will be found in the Annual Prospectus of this School, and any further information may be obtained by personal application to Dr. Sturges, the Dean of the School.

ENGLISH PROVINCIAL SCHOOLS AND HOSPITALS.

QUEEN'S COLLEGE, BIRMINGHAM.

Professors of the Medical Faculty.—Winter Courses: Medicine, Dr. James Russell, Dr. Balthazar W. Foster; Surgery, Mr. Oliver Pemberton, Mr. Furneaux Jordan; Anatomy, Mr. Charles J. Bracey, M.B. Lond., and William Thomas, M.B., F.R.C.S.; Physiology, Dr. Richard Norris, Mr. T. H. Bartleet, M.B. Lond.; Chemistry, Dr. Alfred Hill, F.C.S.; Demonstrator of Anatomy, Mr. Robert Jolly, M.D., F.R.C.S.E. Summer Courses: Midwifery, Mr. John Clay, Mr. John Bassett; Diseases of Women and Children, Mr. Samuel Berry and Dr. R. C. R. Jordan; Forensic Medicine and Toxicology, Mr. Thomas Swain and Dr. Alfred Hill; Practical Chemistry, Mr. Alfred Anderson, F.C.S.; Botany, Dr. William Hinds; Materia Medica and Therapeutics, Mr. J. St. S. Wilders and Edward Mackey, M.B. Lond.; Ophthalmic Surgery, Mr. J. Vose Solomon; Dental Surgery, Mr. Thomas Howkins; Comparative Anatomy, Dr. Thomas Savage; Medical Tutor and Registrar, vacant.

Hospital Practice may be attended at either the General Hospital or the Queen's Hospital, which are equidistant from the College.

Resident Students.—Students may reside within the College, where they will be provided with rooms and board, and will be under the supervision of the Warden and Resident Tutors. Resident Students are expected to attend the College Chapel, unless specially exempted by the Warden.

Resident Tutors.—The Professor of Classics, the Professor of Mathematics, and the Medical Tutor.

Scholarships and Prizes.—Two Warneford Scholarships, the Sands Cox Prize (value of £20), the Warden's Prize (of the value of five guineas), the Percy Prize (books of the value of five guineas), and Class Prizes, Medals, and Certificates of Honour are awarded annually.

Fees.—Composition fee for all the Lectures required by the University of London, the Royal College of Physicians, the Royal College of Surgeons, and the Apothecaries' Society, fifty guineas, payable by two equal instalments; the first on entrance, and the second at the commencement of the second year. Fees for Anatomy, Physiology, Medicine, and Surgery are £5 5s.; for Demonstration, Chemistry, and Midwifery, £4 4s.; for the other courses £3 3s.; for the Summer (with the exception of Midwifery, £5), £4 or £3 3s. Fees for Resident Students, for rooms and commons, £50 per annum.

The prospectus of the Medical Department, and further information, may be obtained by application to the Rev. the Warden, at the College; or to Professor Foster, M.D., 16, Temple-row, Birmingham; or to Professor Furneaux Jordan, Colmore-row, Birmingham.

THE QUEEN'S HOSPITAL, BIRMINGHAM.

Physicians, Dr. Fleming, Dr. Johnston, Dr. Heslop. Surgeons, Mr. West, Mr. Gamgee, Mr. Furneaux Jordan, Mr. J. St. S. Wilders. Obstetric Surgeon, Mr. John Clay. Dental Surgeon, Mr. Adams Parker. Resident Physician and Medical Tutor, Dr. Underhill. Resident Surgeon and Surgical Tutor, Mr. Gilbert Smith.

Fees for Medical and Surgical Practice, for six months, £10 10s.; for one year, £15 15s.; for three years, £31. Midwifery fee, £2 2s.; Dental fee, £2 2s.; both optional.

Several Clinical Prizes are offered for competition to Students of the second, third, and fourth years. They vary from £2 2s. to £5 5s. in value.

The Hospital has special wards for Diseases of Women and Children and Venereal Diseases. There is a Lying-in department, under the superintendence of Mr. John Clay. Clinical Lectures and Instruction are delivered daily at the Hospital by the Physicians and Surgeons. Special Courses of Lectures and Demonstrations are delivered on Diseases of Women and Children, Diseases of the Skin, Orthopædic Surgery, Bandaging and the Application of Surgical Apparatus, and Venereal Diseases. One of the Honorary Physicians gives special Instruction in Physical Diagnosis, the Use of the Microscope, Laryngoscope, and Ophthalmoscope. The Arts of Prescribing and Case-taking are taught by the Resident Physicians. Fees are to be paid to Mr. H. C. Burdett, Resident Secretary to the Hospital. Special Instruction in Dental Surgery by Mr. Adams Parker. Fee, £2 2s.

GENERAL HOSPITAL, BIRMINGHAM.

Physicians, Dr. Bell Fletcher, Dr. Russell, Dr. Wade, Dr. Foster. Surgeons, Mr. Alfred Baker, Mr. O. Pemberton, Mr. T. H. Bartleet, Mr. W. P. Goodall, Mr. R. Jolly. Resident Physician and Tutor, Dr. Greenway. Resident Surgeon, Mr. Bennett May. Registrar and Pathologist, Mr. Edwin Rickards.

Days and Hours of Clinical Instruction.—Clinical Medicine (Dr. Fletcher): Mondays, at 10 o'clock, Dr. Wade; Wednesdays, at 10 o'clock, Dr. Foster; Thursdays, at 10 o'clock, Dr. Russell. Clinical Surgery (Mr. Baker and Mr. Pemberton): Tuesdays, at 10 o'clock, Mr. Bartleet; Fridays, at 10 o'clock, Mr. Jolly; Saturdays, at 10 o'clock, Mr. Goodall.

Clinical Lectures will be given at stated times by Dr. Fletcher, Mr. Baker, and Mr. Pemberton.

BRISTOL MEDICAL SCHOOL, SESSION 1871-72.

The Winter Session will commence on Monday, October 2, 1871. Medicine, Dr. Martyn and Dr. Fox. Surgery, Mr. Coe and Mr. Tibbits. General Anatomy and Physiology, Messrs. Atchley and Steele. Descriptive and Surgical Anatomy, Mr. Lansdown and Mr. Board. Superintendence of Dissections, Messrs. Ludlow, Dobson, and Chute. Chemistry, Mr. Coomber.

The Summer Session will commence on May 1, 1872. Midwifery and Diseases of Women, Dr. J. G. Swayne. Forensic Medicine, Mr. W. P. Keall. Materia Medica and Therapeutics, Dr. G. F. Burder. Botany, Mr. A. Leipner. Practical Chemistry, Mr. Coomber. Pathological Anatomy, Dr. Martyn and Dr. Fox. Comparative Anatomy, Mr. Atchley.

Fee for perpetual attendance on all the above Courses, except Comparative Anatomy, £57 15s.

Competitive Examinations are held amongst Students of the first, second, and third years respectively; and prizes of money, instruments, and books are annually awarded.

Medical and Surgical Hospital Practice and Clinical Lectures are attended at the Royal Infirmary or at the General Hospital.

Further information may be obtained on application to the Honorary Secretary, Dr. G. F. Burder.

BRISTOL GENERAL HOSPITAL.

The Hospital contains 140 beds. Physicians, Dr. Martyn, Dr. Burder, Dr. Fripp. Surgeons, Mr. Coe, Mr. Lansdown, Dr. H. Marshall, Mr. G. F. Atchley. Physician-Accoucheur, Dr. Swayne. Two Scholarships of £15 each are awarded annually. Also a Scholarship, called the Sanders Scholarship, for the study of Medicine and Surgery, being the interest of £500 (to be given annually), bequeathed to the Hospital by the late J. N. Sanders, Esq.

Fees.—Medical or Surgical Practice, for six months, £6; one year, £10; perpetual, £20. Extra Fee for Clinical Clerk or Dresser, £5 5s. for six months. Library fee, £1 1s. per annum. Dressers reside in the Hospital by rotation and free of expense.

Resident Pupils (including board, lodging, and washing), £100 for the first year, £60 for each subsequent year. Or for five years, with apprenticeship to the Hospital, £260.

Further information will be afforded by Mr. Atchley on application being made to him at the Hospital.

BRISTOL ROYAL INFIRMARY.

The Infirmary contains 242 beds. Physicians, Dr. Brittan, Dr. Fairborough. Dr. Fox, Dr. Beddoe. Surgeons, Mr. Leonard, Mr. Clark, Mr. Tibbits, and Mr. Steele.

Fees.—For one year, Surgeon's pupil, £12 12s.; Dresser (extra fee), £12 12s. For two years (at one payment), Surgeon's pupil, £21; Dresser (extra fee), £21. For three years (at one payment), Surgeon's pupil, £26 5s.; Dresser (extra fee), £26 5s. Dressers reside in the House in weekly rotation. Physician's pupil, for six months, £8; one year, £15; eighteen months, £20; perpetual, £25. Clinical Clerks are appointed without extra fee. A Gold Medal and other Prizes are awarded annually. Patients admitted in 1870—In-patients, 2747; out-patients, 18,816; total, 21,563.

LEEDS SCHOOL OF MEDICINE.

The Winter Session will commence on Monday, October 2, 1871. Anatomy, by Mr. James Seaton, Dr. Robert T. Land, and Mr. John A. Nunneley. Physiology, by Messrs. C. J. Wright and James Walker. Principles and Practice of Medicine, by Dr. Charles Chadwick, Dr. John D. Heaton, and Dr. T. C. Allbutt. Principles and Practice of Surgery, by Messrs. Claudius G. Wheelhouse, T. Pridgin Teale, and T. R. Jessop. Chemistry, by Mr. J. Chapman Wilson. Materia Medica, by Dr. John E. Eddison. Midwifery, by Mr. W. Hall. Forensic Medicine, by Mr. Thomas Scattergood. Botany, by Mr. Edward Atkinson. Comparative Anatomy, by Mr. C. G. Wheelhouse and Dr. T. C. Allbutt. Assistant Demonstrators of Anatomy, Messrs. Robert Parr Oglesby, Charles Richardson, and John Horsfall. Demonstrations in Operative Surgery, by Messrs. S. Hey, C. G. Wheelhouse, and Pridgin Teale. Demonstrations of Skin Diseases, by Dr. Allbutt, at the Infirmary. Ophthalmoscopic Demonstrations, by Mr. T. Pridgin Teale. Total fees, entitling to all the Lectures and Hospital Practice required by the Licensing Boards, £88 4s. These fees may be paid at once, or in two instalments at the commencement of the first and second years. Entrance fee to Library and Reading-room, £1 1s., to be paid by all Students on entrance. Instructions in Vaccination, as required by the College of Surgeons and the Poor-law Board, is given by Mr. Holmes, of Burmantofts, one of the Public Vaccinators. Fee, £1 1s. At the close of each Session, Examinations for Prizes are held, when Silver and Bronze Medals, Books, and Certificates of Honour are presented according to merit. Two Clinical Prizes of £10 each, a Forensic Medicine Prize of £10, and two Chemical Scholarships are awarded to Students. House-Surgeoncies, Clinical Clerkships, and Dresserships are open to the Students.

Honorary Medical Officers of the Hospital.—Consulting Physician: Charles Chadwick, M.D. Consulting Surgeon: William Hey, F.R.C.S. Physicians: John Deakin Heaton, M.D., T. Clifford Allbutt, M.D., and John Edwin Eddison, M.D. Surgeons: Samuel Hey, F.R.C.S.; C. G. Wheelhouse, F.R.C.S.; T. Pridgin Teale, M.A., F.R.C.S.; T. R. Jessop, F.R.C.S.

Terms of Attendance upon the Hospital Practice.—The fees for attendance upon the Medical Practice alone, or upon the Surgical Practice alone, are as follows, being the same in each case:—One Winter Session, £7 7s.; one Summer Session, £6 6s.; Twelve Months, £12 12s.; Eighteen Months, £15 15s.; Three Years, £21. Applications for Medical Practice are to be made to Dr. Heaton, Claremont, between 9 and 10 a.m. Applications for Surgical Practice are to be made to Mr. T. Pridgin Teale, 20, Park-row, between 10 and 12 a.m.

LIVERPOOL ROYAL INFIRMARY SCHOOL OF MEDICINE.

The Introductory Address will be delivered on October 2, 1871, at 3 p.m., by Dr. W. Carter.

Hospital Practice, Royal Infirmary.—Physicians, Dr. Vose, Dr. Turnbull, Dr. Waters. Surgeons, Mr. Stubbs, Mr. Bickersteth, Mr. Hakes. Assistant-Surgeon, Mr. Harrison. House-Surgeons, Dr. Cleaver and Mr. Matthews. Pathologist, Mr. Banks. Dental Surgeon, Mr. Snape.

Terms for Hospital Attendance and Clinical Lectures:—For Six Months' Medical or Surgical Practice, £5 5s.; One Year, £6 6s.

Lectures, Winter Session.—Medicine, Dr. Cameron. Surgery, Mr. Harrison. Physiology, Dr. Waters. Anatomy, Mr. W. M. Banks. Dissection, Dr. Glynn and Mr. E. A. Browne. Pathology, Dr. Davidson. Chemistry, Dr. Brown.

Lectures, Summer Session.—Midwifery, Dr. Steele. Diseases of Children, Dr. Gee. Materia Medica, Dr. Nevins. Medical Jurisprudence, Dr. E. Whittle. Toxicology and Practical Chemistry, Dr. Brown. Botany, Dr. W. Carter. Comparative Anatomy and Zoology, Caton.

Exhibitions.—Royal Infirmary Medical Scholarship (value £42), consisting of Gold Medal, value £10 10s., and Six Months' Free Board and Residence, with Clerkship and Dresserships, in the Royal Infirmary. Four Exhibitions (value £31 10s. each), consisting of Six Months' Free Board and Residence in the Royal Infirmary.

The Fee for all the Lectures required by the Colleges of Surgeons and Physicians and the Apothecaries' Hall is forty-five guineas (exclusive of Practical Chemistry).

LIVERPOOL NORTHERN HOSPITAL.

The Winter session will commence on Monday, October 2. Physicians, Dr. Waters and Dr. Glynn. Surgeons, Mr. Manifold, Mr. Lowndes, and Mr. Branston Nash. Junior Surgeon, Mr. John Bradley. Dental Surgeon, Mr. James Lloyd.

The Hospital contains 146 beds, which are mainly devoted to severe Accidents and cases of Acute Disease. There is a special ward for the treatment of the Diseases and Accidents of Children. About 4500 cases are annually treated at the Hospital, of which about 1500 are in-patients. The visits of the Physicians and Surgeons are made between one and two o'clock p.m. daily. Clinical Lectures are regularly delivered by the Physicians and Surgeons during the Winter and Summer Sessions. Clinical Clerkships and Dresserships are open to all the Students, without additional fee. Clinical Prizes will be awarded at the termination of the Winter Session.

Fees for Hospital Practice and Clinical Lectures.—Perpetual, 25 guineas; one year, 10 guineas; six months, 7 guineas; three months, 4 guineas. Students can enter to the Medical or Surgical practice separately, on payment of half the above fees. The Hospital receives one Resident Pupil, fee 60 guineas per annum. Attendance on the Practice of this Hospital qualifies for all the Examining Boards.

For further particulars, apply to the House-Surgeon, Mr. Chalmers.

MANCHESTER ROYAL SCHOOL OF MEDICINE AND SURGERY, FAULKNER-STREET.

The Winter Session will commence October 2, with an Introductory Address by R. T. Hunt, Esq.

Winter Session, 1871-72.—Physiology, Mr. Smith. Descriptive Anatomy, Mr. Lund. Anatomical Demonstrations, Mr. S. M. Bradley. Chemistry, Mr. Stone. Medicine, Dr. Roberts and Dr. Morgan. Surgery, Mr. Southam. The Eye, Mr. Hunt. Practical Physiology, Mr. Smith. Practical Surgery, by the Surgeons of the Hospital.

Summer Session.—Midwifery, Dr. Thorburn. General Pathology and Morbid Anatomy, Dr. Simpson. Materia Medica, Mr. Somers. Forensic Medicine, Mr. Harrison. Botany, Mr. Grindon. Practical Chemistry, Mr. Stone. Comparative Anatomy, Mr. Bradley.

Perpetual fee to the whole of the Lectures required, £42, which may be paid in instalments.

Hospital Practice at the Royal Infirmary, where Clinical Lectures are regularly delivered by the Physicians and Surgeons of the Institution, composition fee £42.

Scholarships.—In addition to Prizes, amounting to 36 guineas, for general proficiency, Three Scholarships for perpetual students will be offered for competition—one of £20 for third year's students; one of £15 for second year's students; one of £10 for first year's students.

Further particulars may be obtained from Mr. Southam; or from the Vice-Registrar, Mr. Stone, at the School, or by letter.

UNIVERSITY OF DURHAM.—COLLEGE OF MEDICINE, NEWCASTLE-UPON-TYNE.

Winter Session, commencing October, 2, 1871.—Physiology, Dr. Murray. Anatomy, Dr. Nesham, Mr. Armstrong, and Mr. Russell. Medicine, Dr. Charlton and Dr. Embleton. Surgery, Dr. Heath. Chemistry, Mr. Marreco, M.A.

Summer Session.—Midwifery, Dr. Gibson. Botany, Mr. Thornhill. Medical Jurisprudence, Dr. Donkin. Materia Medica, Dr. Humble and Dr. Arnison. Practical Chemistry, Mr. Marreco, M.A. Operative Surgery, Dr. Heath. Pathological Anatomy, Dr. Gibb and Dr. Philipson. Pharmacy, Mr. Procter.

Fees for Lectures.—Composition fee for all the Lectures qualifying for the Licence in Medicine and the Mastership in Surgery of the University of Durham, the Licence and Membership of the Royal College of Physicians, the Diploma of

the College of Surgeons, and the Licence of the Apothecaries' Society, and payable on entering to the first Winter Session, £46 4s. Perpetual Ticket for Pharmacy Curriculum, £12 12s. Separate Courses of Lectures, each £4 4s. The composition fee entitles the holder to attend the Lectures on Botany, Chemistry, Materia Medica, and Pharmacy, and to use the Museum of Materia Medica in the Library of the College.

Hospital Practice.—This can be attended at the Newcastle Infirmary, which contains 230 beds. Midwifery, Diseases of the Eye, Insanity, and Vaccination can be specially studied. The Laboratories, Libraries, and Museums are open daily.

Fees for Hospital Practice.—Twelve Months, £7 7s.; Six Months, £5 5s.; Three Months, £4 4s.; Perpetual fee, £17 17s.; or, if paid by instalments, first year £7 7s., second year £6 6s., third year £5 5s These fees also are payable in advance.

Medical Scholarships in the University of Durham.—Four Scholarships, of £25 a year each, tenable each for four years. Two resident Clinical Clerkships, four resident Dresserships, and four non-resident Dresserships are conferred for merit. Dickinson Memorial Scholarship, £15, tenable for one year, for general proficiency. By a recent Act of Convocation, Students may now proceed to the Degrees of M.D. and C.M. of the University of Durham by keeping Terms either at Durham or Newcastle.

College Medals.—At the end of each Session a Silver Medal and Certificates of Honour will be awarded in each of the required classes.

Further particulars may be obtained from Mr. Luke Armstrong, Registrar, or of Dr. Arnison, Secretary.

Clinical Clerkships are open to the Students.

T. O. Wood, L.R.C.P., Medical Superintendent of the Dunston Lodge Lunatic Asylum, will deliver a Course of Lectures on Psychological Medicine, illustrated by cases in the Asylum, to Students in their third and fourth years, during the latter half of the Winter Session. Due notice will be given of the time.

Instruction in Vaccination can be obtained of G. C. Gilchrist, M.D. Fee, one guinea.

SHEFFIELD SCHOOL OF MEDICINE.

The Winter Session will commence on October 1. Anatomy, Descriptive and Surgical, Mr. Skinner and Mr. A. Jackson. Demonstrations of Anatomy, Messrs. Pearce, E. Skinner, and Clark. Physiology, Mr. Thos. Leeds and Mr. S. Morton. Principles and Practice of Medicine, Dr. Frank-Smith. Principles and Practice of Surgery, Mr. W. F. Favell and Mr. Parker, F.R.C.S. Chemistry, Mr. Allen. Dental Mechanics, Mr. G. Mosely. Clinical Medicine, Dr. De Bartolomé, Dr. Law, and Dr. Frank-Smith. Clinical Surgery, Mr. Barber, Mr. W. F. Favell, and Mr. Parker, F.R.C.S.

Summer Session, commencing May 1, 1872. Midwifery and Diseases of Women, Dr. Keeling and Dr. Hime. Materia Medica and Therapeutics, Dr. Young. Medical Jurisprudence and Toxicology, Mr. Baker and Mr. Harrison. Botany, Mr. Birks. Practical Chemistry, Mr. Allen. Dental Surgery, Dr. Merryweather. Demonstrations of Pathology and Microscopy, Mr. Hallam (at the Infirmary). Demonstrations of Operative Surgery, Mr. Favell and Mr. Parker, F.R.C.S. Demonstrators of Practical Histology and Physiology and Practical Surgery, vacancies to be filled up August 28.

Medical and Surgical Practice.—Sheffield General Infirmary.—Physicians, Dr. De Bartolomé, Dr. Law, Dr. Frank-Smith. Surgeons, Mr. Barber, Mr. Favell, Mr. Parker, F.R.C.S. House-Surgeon, Mr. Hallam.

The Infirmary contains 160 beds for In-patients; shortly to be increased to 200.

The fees for Perpetual Attendance at the Infirmary are £15 15s. for Medical, £21 for Surgical, Practice. For twelve months' Practice: Medical, £10 10s.; Surgical, £6 6s. Six months': Medical, £6 6s.; Surgical, £6 6s.

Public Hospital and Dispensary.—100 beds. Physicians, Dr. J. Hall, Dr. Law, and Dr. Mitchell. Surgeons, Mr. Chesman, Mr. A. Jackson, and Dr. Keeling.

Sheffield Hospital for Diseases of Women.—Medical Officers: Dr. Jackson, Dr. Keeling, Dr. Hime, Mr. Woolhouse.

For further information apply to the Staff of the Institution.

Table of Fees, including Demonstrations.—Anatomy and Physiology, first Course, £6 6s., second Course, £4 4s.; Practice of Medicine, first Course, £4 4s.; second Course, £2 2s.; Practice of Surgery, first Course, £4 4s., second Course, £2 2s.; Chemistry, first Course, £4 4s.; Midwifery and Diseases of Women, first Course, £3 3s.; Materia Medica, first Course, £3 3s.; Medical Jurisprudence, first Course, £3 3s.; Botany, first Course, £3 3s.; Practical Chemistry, first Course, £3s. 3s.

Perpetual fee for attendance on all the Lectures required by the Royal College of Surgeons and the Apothecaries' Hall, £40.

All further information may be obtained on application to the Hon. Secretaries, Dr. Frank-Smith, 79, Norfolk-street, and Mr. A. Jackson, St. James's-row, Sheffield.

MEDICAL SCHOOLS AND HOSPITALS IN SCOTLAND.

UNIVERSITY OF EDINBURGH.—1870-71.

Principal—Sir Alex. Grant, Bart., LL.D.

The Session will be publicly opened with an Introductory Address by the Principal, on Wednesday, November 1, 1871. The Classes for the different branches of study will be opened as follows, and will meet daily (Saturdays excepted) unless otherwise stated:—

Faculty of Medicine.—Materia Medica, Professor Christison, M.D.; Chemistry, Professor Crum-Brown, M.D.; Surgery, Professor Spence; Institutes of Medicine or Physiology, Professor Bennett, M.D.; Midwifery and Diseases of Women and Children, Professor Simpson, M.D.; Clinical Surgery, Professor Lister; Clinical Medicine, Professors Bennett, Laycock, Maclagan, and Sanders; Anatomy, Professor Turner, M.B.; Natural History, Professor Wyville Thomson; Practice of Physic, Professor Laycock, M.D.; General Pathology, Professor Sanders, M.D.; Anatomical Demonstrations, Professor Turner; Botany, Professor Balfour, M.A., M.D.; Medical Jurisprudence, Professor Maclagan, M.D. The Lectures on Botany and Medical Jurisprudence are given in the Summer Session.

Royal Infirmary, at noon, daily. Practical Anatomy, Monday, October 3, under the superintendence of Professor Turner. Practical Chemistry, under the superintendence of Professor Crum-Brown. Practical Physiology, under the superintendence of Professor Bennett.

During the Summer Session, Lectures will be given on the following subjects:—Botany, Professor Balfour. Practical Physiology, including Histology, Professor Bennett. Medical Jurisprudence, Professor Maclagan. Clinical Medicine, Professors Bennett, Laycock, Maclagan, and Sanders. Clinical Surgery, Professor Lister. Anatomical Demonstrations, Professor Turner. Practical Chemistry, under the direction of Professor Crum-Brown. Practical Anatomy, under the superintendence of Professor Turner. Natural History, Professor Wyville Thomson. Medical Psychology and Mental Diseases, with practical instruction at an Asylum, Professor Laycock. Operative Surgery, Professor Spence. Practical Pathology, Professor Sanders.

A Table of Fees may be seen in the Matriculation Office and in the Reading-room of the Library.

SCHOOL OF MEDICINE, EDINBURGH.

The Practical Anatomy Rooms and Chemical Laboratories open on Monday, October 2. The Introductory Address will be delivered by Mr. Annandale, on Wednesday, November 1, at Eleven o'clock. Lectures commence on Thursday, November 2.

Winter Session, 1871-2.—Surgery, Dr. P. H. Watson, Dr. Joseph Bell, Mr. Annandale; Chemistry (Lectures, Practical Chemistry, Analytical Chemistry), Dr. Stevenson Macadam; Midwifery and Diseases of Women and Children, Dr. Matthews Duncan; Physiology (Royal Infirmary), Dr. Arthur Gamgee; Clinical Medicine (Royal Infirmary), Drs. Haldane, Balfour, Stewart, and Dr. Matthews Duncan (for Diseases of Women); Clinical Surgery (Royal Infirmary), Mr. Annandale; Anatomy (Lectures, Anatomical Demonstrations, Practical Anatomy), Dr. P. D. Handyside; Medical Jurisprudence, Dr. Littlejohn; Practice of Physic, Dr. Rutherford Haldane; General Pathology, Dr. John Wyllie.

Summer Session, 1872.—Classes open on Wednesday, May 1.—Materia Medica and Therapeutics, Dr. Thomas R. Fraser; Pathological Anatomy and Histology, Dr. John Wyllie; Midwifery and Diseases of Women and Children, Dr. Keiller and Dr. Angus Macdonald; Medical Jurisprudence (Royal Infirmary), Dr. Littlejohn; Clinical Medicine (Royal Infirmary), Drs. Haldane, Balfour, Stewart, and Dr. Matthews Duncan (for Diseases of Women); Clinical Surgery (Royal Infirmary), Mr. Annandale; Anatomy (Practical Anatomy, Anatomical Demonstrations), Dr. P. D. Handyside; Chemistry (Practical Chemistry, Analytical Chemistry), Dr. Stevenson Macadam.

The minimum cost of the Education in the above School for the Double Qualification of Physician and Surgeon from the

Royal Colleges of Physicians and Surgeons, including the fees for the Joint Examination, is £90 4s., which is payable by yearly instalments during the period of study; whilst the minimum cost for the Single Qualification of either Physician or Surgeon, including Fee for Examination, is £80.

ROYAL INFIRMARY, EDINBURGH.

In this Hospital a portion of the beds is set apart for Clinical Instruction by the Professors of the University of Edinburgh. Courses of Clinical Medicine and Surgery are also given by the Ordinary Physicians and Surgeons. Separate Wards are devoted to Fever, Small-pox, Venereal Diseases, Diseases of Women, Diseases of the Eye; also to cases of Incidental Delirium or Insanity. Post-mortem Examinations are conducted in the Anatomical Theatre by the Pathologist, who also gives Practical Instruction in Pathological Anatomy and Histology. Professors of Clinical Medicine, Dr. Bennett, Dr. Laycock, Dr. Maclagan, Dr. Sanders. Extra-Physicians and Lecturers on Diseases peculiar to Women, Dr. J. Matthews Duncan and Dr. Alexander R. Simpson. Ordinary Physicians and Lecturers on Clinical Medicines, Dr. Rutherford Haldane, Dr. Geo. W. Balfour, Dr. T. Grainger Stewart. Assistant-Physicians, Dr. Claud Muirhead, Dr. Thomas R. Fraser. Consulting-Surgeon, Dr. Dunsmure. Professor of Surgery, Mr. Spence. Ordinary Acting-Surgeons, Dr. J. D. Gillespie (Lecturer on Clinical Surgery), Dr. P. H. Watson, Mr. Thos. Annandale. Professor of Clinical Surgery, Mr. Lister. Ophthalmic Surgeons, Mr. Walker, Dr. D. A. Robertson. Extra-Surgeon for Treatment of Ovarian Disease, Dr. Thomas Keith. Assistant-Surgeons, Dr. Joseph Bell, Dr. John Duncan. Dental Surgeon, Dr. John Smith. Pathologist, Dr. James B. Pettigrew. Hospital Tickets.—Perpetual in One Payment, £10; Annual, £5 5s.; Half-yearly, £3 3s.; Quarterly, £1 11s. 6d. Separate payments for Two Years entitle the Student to a Perpetual Ticket. No fees are payable for any Medical or Surgical Appointment in this Hospital.

UNIVERSITY OF ABERDEEN.—FACULTY OF MEDICINE.

Winter Session, commencing on Wednesday, October 26.—Anatomy, Professor Struthers, M.D., £3 3s. Practical Anatomy and Demonstrations, Professor Struthers and the Demonstrator, £2 2s. Chemistry, Professor Brazier, £3 3s. Institutes of Medicine, Professor Ogilvie, £3 3s. Surgery, Professor Pirrie, £3 3s. Practice of Medicine, Professor Macrobin, M.D., £3 3s. Midwifery and Diseases of Women and Children, Professor Inglis, £3 3s. Zoology, with Comparative Anatomy, Professor Nicol, £3 3s. Medical Jurisprudence, Professor Ogston, £3 3s.

Summer Session, commencing on the first Monday in May.—Botany, Professor Dickie, £3 3s. Materia Medica (100 Lectures), Professor Harvey, £3 3s. Practical Anatomy and Histology, Professor Struthers, and the Demonstrator, £2 2s. Practical Chemistry, Professor Brazier, £3 3s. Zoology, with Comparative Anatomy, Professor Nicol, £3 3s.

Matriculation Fee for the Winter and Summer Sessions, £1. For the Summer Session alone, 10s.

Royal Infirmary: Perpetual Fee to Hospital Practice, £6; or First Year, £3 10s.; Second Year, £3. Clinical Medicine, Drs. Harvey, Smith, and Beveridge, £3 3s. Clinical Surgery, Drs. Pirrie, Kerr, and Fiddes, £3 3s. Pathological Anatomy, Dr. Rodger, £2 2s. Practical Ophthalmology, Dr. A. D. Davidson. Dental Surgery, Mr. Williamson.

For further information, apply to Dr. Macrobin, Dean of the Faculty of Medicine.

UNIVERSITY OF GLASGOW.—FACULTY OF MEDICINE.

The Classes open for the Winter Session on Tuesday, October 31, 1871, when an Introductory Lecture will be given by Professor Dickson.

Chemistry, Practical Chemistry, and Chemical Laboratory, Dr. Anderson, £3 3s. Practice of Physic, Dr. Gairdner, £3 3s. Anatomy, Anatomical Demonstrations, and Practical Anatomy, Dr. Allen Thomson and Demonstrator, £8 8s. Materia Medica, Dr. Cowan, £3 3s. Forensic Medicine, Dr. Rainy, £3 3s. Surgery, Dr. Macleod, £3 3s. Midwifery, Dr. Leishman, £3 3s. Institutes of Medicine, Dr. A. Buchanan, £3 3s. Clinical Medicine and Clinical Surgery, Physicians and Surgeons of Royal Infirmary.

Further information may be obtained from the Registrar of the University.

ANDERSON'S UNIVERSITY, GEORGE-STREET, GLASGOW.

The Winter Session 1871 opens October 31. Chemistry, Practical Chemistry, and Laboratory, Vacant; Surgery, Dr. James Dunlop; Institutes of Medicine (Physiology), Dr. Watson; Anatomy, Anatomical Demonstrations, Practical Anatomy, or Dissection, Dr. G. Buchanan; Practice of Medicine, Dr. M'Call Anderson; Materia Medica, Dr. Morton; Hospital Practice in Royal Infimary; Clinical Lectures in Royal Infirmary.

Summer Session.—Midwifery, Dr. J. G. Wilson; Medical Jurisprudence, Dr. P. A. Simpson; Surgical Anatomy, Practical Anatomy, Osteology for beginners, Dr. George Buchanan; Practical Chemistry, Vacant.

Class Fees: For each of the above Courses of Lectures, First Session, £2 2s.; Second Session, £1 1s.; afterwards free.

Anatomy Class Fees: For both Courses (Lectures and Demonstrations), First Session, £4 4s.; Second Session, £4 4s.; afterwards free.

Practical Anatomy: The Dissecting-room is free for two Sessions to those who attend both Courses of Anatomy. After the second year the fee for Practical Anatomy is £1 1s. per Session.

The fees for all the Lectures and Hospital Practice required of Candidates for the Diplomas of Physician and Surgeon amount to £45.

GLASGOW ROYAL INFIRMARY.

The Winter Session commences on November 1, 1871. Hour of visit and of Lectures at 9 a.m. Physicians, Drs. Steven Perry, M'Call Anderson, Scott Orr, W. J. Gairdner, and Maclaren. Surgeons, Drs. Dewar, Macleod, Buchanan, Watson, and Morton. Pathologist, Dr. Joseph Coats.

Beds, 550. Attendance at Dispensary, 2 p.m.

The valuable Pathological Museum is open to all Students who desire to examine the Preparations.

Five Physicians' and five Surgeons' Assistants perform the duties of House-Physicians and House-Surgeons. These offices, held for one year, are open to Students of the fourth year. They are lodged and boarded in the Hospital for £25 per annum. Dressers to the Surgical Wards and Clerks to the Dispensary are appointed without fee.

Fees admitting to the Medical and Surgical Practice of the Hospital and Dispensary:—For the first year, £3 3s.; second year, £3 3s.; third and perpetual, £1 1s.; for six months' attendance, £2 2s.; three months', £1 11s. 6d. Practical Pharmacy, six months, £3 3s.

Fees for Clinical Lectures, on Medicine, £3 3s., on Surgery, £3 3s.

Medical Superintendent, Dr. M. Thomas. Secretary, Mr. H. Lamond, 64, West Regent-street.

SCHOOLS AND HOSPITALS IN IRELAND.

SCHOOL OF PHYSIC, UNIVERSITY OF DUBLIN.

The School was established by Act of the Irish Parliament 40th George III., cap. 84, and is under the joint government of the Board of Trinity College and the King and Queen's College of Physicians.

Institutes of Medicine, Professor Law. Materia Medica and Pharmacy, Professor A. Smith. Surgery, Professor R. Smith. Anatomy and Surgery, Professor M'Dowel. Practical Anatomy, Dr. Bennett. Chemistry, Professor Apjohn. Practice of Medicine, Professor Moore. Midwifery, Professor Sinclair. Botany, Dr. E. Perceval Wright. Medical Jurisprudence, Professor Travers. Zoology, Professor Alexander Macalister, M.D. Physics, Professor John Leslie, M.A. Hospital Practice and Clinical Lectures at Sir Patrick Dun's Hospital.

SIR PATRICK DUN'S HOSPITAL.

Consulting Physician, William Stokes, M.D., Regius Professor of Physic. Consulting Surgeon, Robert Adams, M.Ch., Regius Professor of Surgery. The Clinical Lectures in Medicine and Surgery are delivered by Physicians: Robert Law, M.D., King's Professor of the Institutes of Medicine; William Moore, M.D., King's Professor of the Practice of Medicine; Aquilla Smith, M.D., King's Professor of Materia Medica and Pharmacy; Edward B. Sinclair, M.D., King's Professor of Midwifery.—Surgeons: Thomas E. Little, M.D.; Robert W. Smith, M.Ch., Trinity College, Professor of Surgery; Edward H. Bennett, M.Ch., University Anatomist; Richard G. Butcher, M.D., University Lecturer in Practical Surgery. The Physicians and Surgeons attend for Clinical Instruction on alternate days.

Hospital Fee for twelve months, including nine months' Clinical Lectures, nine guineas. Attendance on this Hospital is recognised by all Licensing Bodies.

ST. VINCENT'S HOSPITAL, DUBLIN.

The Winter Session will commence on Wednesday, November 1, 1871. Physicians, Dr. Francis J. B. Quinlan and Dr. Robert Cryan. Surgeons, Dr. Edward D. Mapother and Mr. William H. O'Leary. Surgeon-Dentist, Mr. William J. Doherty. Apothecary, Mr. Boland.

Further particulars may be learned on application to the Secretary, or at the Hospital during the hours of attendance.

THE QUEEN'S UNIVERSITY IN IRELAND.—QUEEN'S COLLEGE, BELFAST, FACULTY OF MEDICINE.

The Lectures will commence on Tuesday, October 3. Anatomy and Physiology, Dr. P. Redfern. Chemistry, Dr. Thomas Andrews. Practice of Medicine, Dr. James Cuming. Practice of Surgery, Dr. A. Gordon. Materia Medica, Dr. J. S. Reid. Midwifery, Dr. R. F. Dill. Medical Jurisprudence, Dr. J. F. Hodges. Natural Philosophy, Dr. Everett. Zoology and Botany, Dr. R. O. Cunningham. The Demonstrations in Anatomy are delivered by Dr. Charles. The Courses of Botany and Practical Chemistry, and a second Course of Experimental Physics will commence in May. After the Session 1871-72 the Lectures in Midwifery and in Medical Jurisprudence will be Summer Courses.

Fees.—Anatomy and Physiology—First Course, £3; each subsequent Course, £2. Anatomical Demonstrations and Practical Anatomy—each Course, £3. Practical Chemistry, £3. Other Medical Lectures—First Course, £2; each subsequent Course, £1.

Two Medical Scholarships are awarded to the Students of each year of the Medical Course. The Examinations commence on October 20.

Belfast General Hospital.—Clinical Instruction—Perpetual fee, payable in one sum of £10 10s., or in two instalments of £5 5s. each on entering for the first and second years. Hospital fee, 10s. 6d. each Session. Four Resident Pupils are appointed each Session.

Belfast Lying-in Hospital.—Fee for the Session, £3 3s.

QUEEN'S COLLEGE, CORK.—FACULTY OF MEDICINE.—Session 1871-72.

Anatomy, Physiology, and Practical Anatomy, Dr. J. H. Corbett, Practice of Medicine, Dr. C. O'Connor. Practice of Surgery, Dr. W. Tanner. Materia Medica, Dr. P. O'Leary. Midwifery, Mr. J. R. Harvey. Natural Philosophy, Mr. John England. Chemistry and Practical Chemistry, Dr. J. Blyth. Zoology and Botany, Dr. J. R. Greene. Clinical Medicine and Clinical Surgery, at the North and South Infirmaries, by the Physicians and Surgeons of these Institutions. Clinical Midwifery, at the Lying-in Hospital. The Medical Session will be opened on Thursday, November 2, 1871, and the Lectures will commence on the same day.

Eight Scholarships, value £25 each, are awarded to Students of Medicine.

For further information, apply to Mr. Robert John Kenny, Registrar.

QUEEN'S COLLEGE, GALWAY.—FACULTY OF MEDICINE.

Anatomy and Physiology, and Practical Anatomy, Dr. Cleland. Practice of Medicine, Dr. N. Colahan. Practice of Surgery, Dr. J. V. Brown. Materia Medica and Medical Jurisprudence, Mr. S. M'Coy. Midwifery and Diseases of Women and Children, Dr. R. Doherty. Chemistry, Dr. T. H. Rowney. Natural Philosophy, Dr. A. H. Curtis. Botany and Zoology, Dr. A. G. Melville. Logic and Mental Philosophy, Dr. T. W. Moffett. The County Galway Infirmary, Town, and Fever Hospitals are in the immediate vicinity of the Queen's College. They are visited every morning by Professors of the College, who deliver Clinical Lectures.

Eight Scholarships of the value of £25 each, and Exhibitions varying in value from £10 to £18, are appropriated to Students pursuing the Course for the Degree of M.D.

Fees.—Anatomy and Physiology, £3, first Session; afterwards, £2. Practical Anatomy, £3; Practical Chemistry, £3; Operative Surgery, £3; other Classes, £1 for each Course extending over one Term only—£2 for each Course extending over more than one Term— and £1 for each reattendance on the same. The College Session is divided into three Terms. The first Term commences on October 17, 1871, and ends on December 23, 1871.

For further information, apply to the Registrar, T. W. Moffett, LL.D.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—SCHOOL OF SURGERY.—Session 1871-72.

The public Lectures and the usual Winter Course will commence on October 30. Anatomy and Physiology, Dr. Mapother. Descriptive Anatomy, Dr. Bevan and Mr. Morgan. Surgery, Mr. Hargrave and Dr. J. S. Hughes. Practice of Medicine, Dr. Benson. Chemistry, Dr. Barker. Materia Medica, Dr. Macnamara. Midwifery, Dr. Sawyer. Medical Jurisprudence, Dr. Davy. Practical Chemistry, Dr. Barker. Botany, Dr. Minchin. Hygiene, Dr. Cameron. Dissections, under the direction of the Professors of Anatomy and the Demonstrators, Drs. Croly, Stoney, Stoker, Ormsby, Kilgarriff, and Wheeler, commence on October 2.

The Summer Session commences in April and terminates in July, including Materia Medica, Medical Jurisprudence, Botany, Practical Chemistry, Midwifery, and Hygiene.

The fee for each of the above Courses is £3 3s., except Comparative Anatomy, which is free. Practical Instruction in Operative Surgery is given by the Professors of Surgery, separate from the Surgical Lectures. Fee, £5 5s.

For further information, application to be made to the Registrar, John Brennen, Esq., at the College.

DR. STEEVENS' HOSPITAL, DUBLIN,

Contains 250 beds, with distinct Wards for Fever, Syphilis, Diseases of the Eye, and Diseases of Females. There are also in connexion with the Hospital a Maternity Department, and an extensive Dispensary for out-patients. Systematic Courses of Lectures are delivered during the Winter and Summer Sessions on all subjects required by the Colleges, Halls, and the Public Service. Students enjoy the advantages of a Reading-room, Museum, and Lending Library. There is accommodation in the Hospital for two Medical and six Surgical Resident Pupils as Dressers. Fee, £21, including Hospital Certificate. Special Private Classes are held for the preparation of gentlemen for the Licensing Bodies and Competitive Examinations. Senior Middle and Junior Exhibitions will be awarded at the end of the Session to those whose answering exhibits general proficiency in every branch of their Professional studies. There will also be Prizes for the best Reports of Cases which have occurred in the Hospital during the Session. Two Midwifery Assistants are each year (month of November) selected by Competitive Examination, salary £30 per annum. The Dissecting Rooms will be opened on October 1 for Practical Anatomy. The Lecturers and Demonstrators attend throughout the day. The Sessional Courses of Lectures will commence on the 1st Monday in November. Fees—Hospital, £7 7s.; Lectures, £3 3s. each Course; Perpetual, to all Educational Courses required by Colleges, Halls, and Public Service, 75 guineas, payable in two instalments.

Further particulars on application to the Resident Surgeon, at the Hospital; or to E. Hamilton, M.D., Secretary, 120, Stephen's-green.

THE ADELAIDE HOSPITAL, PETER-STREET, DUBLIN.

Physicians, Dr. Henry H. Head and Dr. James Little. Surgeons, Dr. Albert J. Walsh, Dr. Jonn K. Barton, and Mr. Benjamin Wills Richardson. Obstetric Physician, Dr. Lombe Atthill. Ophthalmic Surgeon, H. Rosborough Swanzy, M.B. Assistant-Physician, Dr. Walter G. Smith. Assistant-Surgeon, Montgomery A. Ward, M.B., M.Ch.

The central position of this Hospital renders it peculiarly convenient to gentlemen attending Lectures at the University, College of Surgeons, or Ledwich School. The arrangements for Clinical Teaching have been made as complete as possible, and are such as not to interfere with attendance at the Medical Schools. There are Fever Wards apart from the Hospital, and two Wards for Infants and Children. Special hours are devoted to Clinical Instruction in the Diseases peculiar to Women, the Diseases of the Eye, and Cutaneous Diseases, and Students are individually instructed in the Use of the Stethoscope, Ophthalmoscope, Laryngoscope, and Microscope. Two Resident Pupils are selected half-yearly. Prize Examinations are held at the termination of the Session.

Further particulars can be obtained from Dr. Atthill, 11, Upper Merrion-street, or any other member of the Medical Staff.

CARMICHAEL (FORMERLY RICHMOND HOSPITAL) SCHOOL OF MEDICINE.

The Winter Courses of Lectures commence November 1. Lecturers: Theory and Practice of Surgery and Operative

Surgery, Mr. W. Stokes. Theory and Practice of Medicine, Dr. Gordon. Anatomy and Physiology, Mr. Curran and Dr. Purser. Anatomy, Deseriptive, Practical, and Surgieal Dr. Corley and Mr. Mayne. Chemistry, Theoretical and Practical, Dr. Campbell. Midwifery and Diseases of Women and Children, Dr. Jennings. Dissections, which eommence in October, are superintended by Messrs. Curran, Corley, Purser, Shaw, Madden, Mayne, Clarke, and Kelly.

Carmichael Premiums.—Premiums to the value of £60, on the foundation of the late Richard Carmichael, Esq., and the "Mayne" Scholarship, value £15, are awarded at the termination of the Session.

Summer Session.—Leeturers: Botany, Dr. Blakely. Materia Medica and Pharmaey, Dr. Fraser. Medical Jurisprnenee, Dr. O'Reilly. Practical Chemistry, Dr. Campbell.

Fees—The fee for eaeh Course of Leetures delivered at this School is £3 3s. Fees for all the Courses of Lectures required by the Royal College of Surgeons of London, £43; Edinburgh, £46; and Ireland, £63.

For further information, apply to Dr. Corley, Registrar, 30, Lower Baggot-street, Dublin.

LEDWICH SCHOOL OF ANATOMY, MEDICINE, AND SURGERY, PETER-STREET, DUBLIN.

Anatomy, Physiology, and Pathology, etc., Mr. E. Ledwieh, Mr. T. P. Mason, and Mr. W. H. O'Leary. Theory and Praetice of Surgery, Messrs. Wharton and Barton. Surgical and Descriptive Anatomy, Demonstrations, and Dissections, Messrs. Mason, Ledwieh, Glanville, Robinson, and O'Leary. Theory and Praetiee of Medicine, Drs. Little and Eames. Midwifery and Diseases of Women and Children, Dr. J. Ringland. Materia Medica and Therapeuties, Dr. M'Dowell. Forensie Medicine and Hygiene, Dr. R. Travers. Theory of Chemistry, Practical Chemistry, and Natural Philosophy, Dr. Cameron. Botany, Dr. Maunsell.

A Course of Operations to be performed by the Students, under the superintendence of the Lecturers (subjects, etc., included), £5 5s.

Certificates of attendance on these Lectures are received by Trinity College, Dublin, and all the Examining Boards.

The Fee for eaeh of the above Conrses will be £3 3s.

Further information may be obtained from any of the Leeturers, or from Edward Ledwich, Secretary, 7, Hareourt-street, Dublin.

CITY OF DUBLIN HOSPITAL.

Physicians: Drs. J. Hawtrey Benson and John M. Purser. Surgeons: Messrs. William Hargrave, M.D., Jolliffe Tuffnell, H. G. Croly, and William Thornley Stoker, Esq., M.D., etc. Ophthalmic and Anral Surgeon, Dr. Loftie Stoney. Consulting-Physicians: Professor Apjohn, Charles Benson, M.D., and Thomas E. Beattie, M.D. Clinical Lectures will be delivered by the Physicians and Surgeons, and Special Courses on Diseases of the Eye and Ear will be given by Dr. Stoney. The Certificates of Attendance are received as qualifications by all the Colleges, Halls, and Boards. For further particulars, apply to Dr. Benson, 42, Fitzwilliam-square West, or to Dr. Stoker, 43, Hareourt-street.

HOSPITALS, ETC., FOR SPECIAL INSTRUCTION.

At Downing College, Cambridge, every alternate year an election to a Fellowship takes place, the holder of which must be engaged in the active pursuit of the studies of Law or Medicine. These Fellowships are of the annual valne of £200, and are tenable for twelve years. They are not vacated by marriage, and the Fellows are not required to reside. The next election will take place in October, 1871. Foundation Scholarships of £50 per annum (in some cases with rooms and commons) are offered annually for distinction in Natural Scienee, tenable until the B.A. Degree, and in case of special merit for three years longer. Minor Scholarships of £40 per annum, tenable for two years, are offered each year for competition before entrance, and in awarding one or more of these considerable weight is given to proficiency in Natural Science.

Queen Charlotte's Lying-in Hospital, Marylebone-road.—Instituted 1752. Rebuilt 1856. Consulting Physician—Dr. Owen Rees. Consulting Surgeon—Henry Lee, Esq. Medical Officers for the In-patients—Dr. Brodie, Dr. Hope. Medical Officer for Out-patients—Dr. Grigg. Secretary—Mr. A. S. Boodle, who attends at the Hospital on Monday from ten to two. Pupils are admitted to reside and board in the Hospital (after having been examined by the Physicians) for periods of not less than six weeks. Terms on application at the Hospital.

St. Luke's Hospital for Lunatics, Old-street, E.C.—Physicians—Dr. Henry Monro and Dr. William Wood. Surgeon—Mr. Alfred Willett. Resident Medical Superintendent—Reginald Eager, M.R.C.S., L.A.S., and M.D. Univ. Lond. The Visiting Physicians are allowed by the Committee to take pupils. For information address the Secretary, Mr. George Seymour.

Royal Orthopædic Hospital, 315, Oxford-street.—Medical Officers.—Surgeons—R. W. Tamplin, Esq., F.R.C.S., 33, Old Burlington-street; Wm. Adams, Esq., F.R.C.S., 5, Henrietta-street, Cavendish-square. Assistant-Surgeons—Bernard E. Brodhurst, Esq., F.R.C.S., 20, Grosvenor-street; Jno. D. Hill, Esq., F.R.C.S., 17, Guildford-street, Russell-square. Legally qualified Practitioners are free to witness the practice of the Hospital. Pupils on the following terms:—For six months, £3 3s.; for twelve months, £5 5s.; perpetual, £10 10s. Operations, Thursdays, 2 p.m. The Annual Course of Lectures will be duly announced.

The Hospital for Sick Children, 48, and 49, Great Ormond-street, W.C., and Cromwell House, Highgate.—Physicians—Dr. West and Dr. Dickinson. Assistant-Physicians—Dr. Samuel Gee, Dr. W. B. Cheadle, Dr. J. J. Phillips, Dr. F. B. Nunneley, and Dr. John Murray. Surgeon—Mr. Thomas Smith. Assistant-Surgeons—Mr. Howard Marsh, Mr. J. W. Haward. Surgeon-Dentist—Mr. Thomas Edgelow. 127 beds. In-patients, 1870, 691. Out-patients attending, 12,221. The practice of the Hospital, in both In- and Out-patient departments, is open at nine every morning. Fee for Six Months' attendance, £3 3s.; perpetual, £5 5s. Samuel Whitford, Secretary.

London School of Dental Surgery and Dental Hospital of London, 32, Soho-square, W.—The Winter Session will commence on Tuesday, October 3. Mechanical Dentistry, Mr. J. S. Turner, Metallurgy, Mr. G. H. Makins; Dental Surgery and Pathology, Mr. Cartwright; Dental Anatomy and Physiology, Mr. C. S. Tomes. Dental Surgeons to the Hospital—Messrs. Fox, Underwood, Gregson, Coleman, H. Harding, and Hill. Assistant Dental Surgeons—Messrs. Moon, Medwin, C. S. Tomes, Lane, Bartlett, and Scully. Dental House-Surgeon—Mr. Mordaunt Stevens. Treasurer—Mr. Cartwright.

Great Northern Hospital, Caledonian-road.—Consulting Surgeon—Mr. Skey. Physicians—Drs. Leared, Hardinge, Cholmeley, F. C. Webb, Jephson, and Crucknell. Obstetric Physician—Dr. Gustavus C. P. Murray. Diseases of the Eye—Mr. E. C. Hulme. Surgeons—Messrs. Gay, W. Adams, T. Carr Jackson, Buxton Shillitoe, W. Spencer Watson, and Osman Vincent. Aural Surgeon—Mr. Harvey. Dentists—Messrs. Statham and Chas. J. Fox. Chloroformist—Mr. Coles. House-Surgeon—Mr. Julian Willis. Junior Resident Medical Officer—Mr. J. T. Dempsey. Dispenser—Mr. Ring.

National Hospital for the Paralysed and Epileptic, 23 and 24, Queen-square, Bloomsbury.—The Hospital contains 64 beds; the County Convalescent Branch, at Finchley, 25 beds. The Physicians attend every Monday, Tuesday, Wednesday, and Friday. Physicians—Drs. Ramskill, Radcliffe, Hughlings-Jackson, and Buzzard. Assistant-Physicians—Dr. Charlton Bastian, Dr. Elam, Dr. Maclure. Medical Superintendent—Dr. Tibbits. Medical Registrar—Dr. Gowers. Medical Practitioners and Students will be admitted on showing their cards.

Pharmaceutical Society of Great Britain, Bloomsbury-square, London.—School of Pharmacy.—Session 1871-72.—The Session will commence on Monday, October 2, and extend to the end of July, 1872. Lectures on Chemistry and Pharmacy will be delivered by Professor Redwood on Monday, Tuesday, and Wednesday mornings at nine o'clock, commencing on Monday, October 9. Also Lectures on Botany and Materia Medica by Professor Bentley. The first and second parts of this course, extending over the winter months, will be delivered at 17, Bloomsbury-square, on Friday and Saturday mornings at nine o'clock, commencing Friday, October 6. The third part of the course, on Systematic Botany, will be delivered at the Royal Botanic Gardens, Regent's-park. Fees: For Registered Apprentices and Associates of the Society, for either of the above courses, One Guinea; for either part separately, Half-a-Guinea. For those not connected with the Society, Two Guineas for either of the above courses; One Guinea for either part separately. Laboratory: The suit of Laboratories for Practical Instruction in General and Pharmaceutical Chemistry will be opened on Monday, October 2, under the direction of Professor Attfield. Fee for the entire Session of ten months, Twenty-five Guineas. The Laboratories are open from half-past nine a.m. till five p.m. Students can enter at any period during the Session. Two Scholarships (the Jacob Bell Memorial Scholarships), of £30 a year each, are open to competition annually in July. The Board of Examiners meet monthly to grant Certificates of Competency. For further information, apply to Mr. Bremridge, Secretary and Registrar.

Queen's College, Liverpool.—The Session will commence on Monday, October 2. The College is in connexion with the University of London, and its classes comprise the subjects required for the Matriculation, B.A., B.Sc., and Preliminary Scientific M.B. Examinations of that University. Instruction in Practical Chemistry is given in the College Laboratory by Professor Hamilton. Provincial Examinations of the London University are held at Queen's College. Fees: Separate classes, £2 2s. to £4 4s. per Session; Practical Chemistry, £5 5s.; course, Students, £20 per Session.

South Staffordshire General Hospital, Wolverhampton.—One year's attendance recognised by Examining Boards. Pupils resident and non-resident. Fees for Hospital Practice: One year, Ten Guineas; perpetual, Twenty Guineas. Physicians—Dr. Milliogton and Dr. Miller. Surgeons—Mr. Vincent Jackson, Mr. J. O'Brien Kough, Mr. C. A. Newnham. House-Surgeon—Mr. Burton Ravenhill. Physicians' Assistant—Dr. A. Bottle. Operations are performed in the Theatre every Thursday morning, at eleven o'clock. The fees must be paid to Mr. W. T. Grant, Secretary to the Hospital. The Practice in the Hospital is very extensive, the number of Surgical cases being large and important. Practical Instruction in Surgery to First-year Students, and Dresserships for Students after two years' Professional Education, both in accordance with the Royal College of Surgeons of England, may be obtained at this Hospital; also, Clinical Clerkships. For particulars apply at the Hospital to Vincent Jackson, Honorary Secretary of the Medical Committee.

The College of Chemistry, Duke-street, Liverpool.—The Certificates of Attendance are acknowledged by the University and Apothecaries' Hall of London, and the Apothecaries' Hall of Ireland, etc. Founder—Sheridan Muspratt, M.D., Ph.D., F.R.S.E., etc., etc. Principal—Martin Murphy, F.C.S., etc., Director of Studies and Analyst of the College during the last twenty-two years. Course of Instruction: The course of instruction given in the College of Chemistry comprises the teaching of Chemistry as a science, and the general application of chemical knowledge; also the teaching of the principles of those branches of Physics which are allied with Chemistry, such as light, heat, electricity, etc. The Students' Laboratories are open throughout the year. Hours of attendance, from 10 a.m. to 5 p.m. daily. Fees: Ten Guineas per quarter of three months, or Thirty-five Guineas per annum, payable in advance. Students are received for a limited period, and for the study of special subjects. Medical Students and Pharmacists entering for one hour per day for three months, fee Three Guineas. Students provide all their own apparatus and books.

Norfolk and Norwich Hospital.—155 beds. One year's attendance recognised by Examining Boards.—Fees: For the Physician's Practice, £10 10s.; for the Surgeon's Practice—one year, £20; two years, £30; perpetual, £40. Pupils resident and non-resident. Physicians—Dr. Copeman, Dr. Eade, Dr. Bateman. Surgeons—Mr. Nichols, Mr. Firth, Mr. Cadge. Resident Medical Officer—Vacant. Assistant-Surgeons—Mr. Crosse, Mr. Williams.

EDUCATIONAL VACCINATING STATIONS.

In order to provide for the granting of those special Certificates of Proficiency in Vaccination which, under the regulations of the Privy Council, are required to be part of the Medical qualification for entering into contracts for the performance of public vaccination, or for acting as deputy to a contractor, the following arrangements are made:—

1. The vaccinating stations enumerated in the subjoined list are open, under conditions appointed by the Privy Council, for the purposes of teaching and examination.

2. The public vaccinators officiating at the stations are authorised by the Privy Council to give the required Certificates of Proficiency in Vaccination to persons whom they have sufficiently instructed therein; and

3. The Public Vaccinators, whose names in the subjoined list are printed in italic letters, are also authorised to give such Certificates, after satisfactory examination, to persons whom they have not themselves instructed.

London.—Principal Station, Surrey Chapel, Blackfriars-road: *Mr. James Furness Marson*, who attends on Tuesday and Thursday, at 1 p.m. North-west Station, vacant. West Station, 9, St. George's-road, Pimlico, S.W.: Dr. Edward Lowe Webb, on Monday, at 10 a.m. East Station, vacant. North Station, Tottenham-court Chapel, Tottenham-court-road: Mr. William Edwin Grindley Pearse, on Monday and Wednesday, at 1 p.m. South-west Station, 2, Regent-place, Horseferry-road: Mr. William Edwin Grindley Pearse, on Tuesday, at 2 p.m. Strand Station, Charing-cross Hospital: Mr. Robert William Dunn, on Monday, at 10 a.m.

Birmingham.—The School-rooms, 27, Old Meeting-street, on Monday; the rooms occupied by the Working Men's Mutual Improvement Society, in Barr-street, on Tuesday; St. Mark's School-rooms, St. Mark's-street, on Wednesday; and the Islington Assembly-rooms, 42, Broad-street, on Thursday: *Dr. Edmund Robinson*, at 11 o'clock on the days before-mentioned.

Bristol.—The Public Vaccination Station, Peter-street: *Dr. Henry A. P. Robertson*, on Wednesday, at 10 a.m.

Exeter.—Odd Fellows' Hall, Bamfyld-street: *Mr. Charles H. Roper*, on Thursday, at 3 p.m.

Leeds.—23, Burmantofts-street: *Mr. Frederick Holmes*, on Tuesday, at 3 p.m.

Liverpool.—4, Oldham-street: *Mr. Arthur Browne Steele*, on Thursday, at 2 p.m.

Manchester.—159, Rochdale-road: *Mr. Ellis Southern Guest*, on Monday at 2 p.m.

Newcastle-on-Tyne.—6, George-street East, Savile-row: *Mr. George Cuthbert Gilchrist*, on Tuesday, at 2 p.m.

Edinburgh.—The Royal Dispensary: *Dr. William Husband*, on Wednesday and Saturday, at 12.

Glasgow.—The Hall of the Faculty of Physicians and Surgeons: *Dr. James Dunlop*, on Monday, at 12. The Royal Infirmary: Dr. Robert Dunlop Tannahill, on Monday and Thursday, at 12.

*** The vacancies in the East and North-west Stations (London) will be shortly filled up.

PRIVATE TEACHERS.

Dr. Baaron, Class-rooms, Millikin's Chambers, 7, Southwark-street, Borough, gives Courses of Medical and Surgical Tuition, adapted to Students for Professional Examination.

Dr. Coales, M.A., 119, Gower-street, W.C., prepares Candidates for the Prelim. Sc. and Matriculation Examinations of the University of London, and for the Examinations in Arts at the Royal College of Surgeons, Apothecaries' Hall, etc.

Dr. W. Hanosel Griffiths, of Dublin, prepares Students for the Medical and Surgical Professional Examinations.

Mr. Edward B. Goodwin (Caius College, Cambridge), 319, Camden-road, N., receives Pupils, resident and otherwise, for the Preliminary Examinations at the College of Surgeons and Apothecaries' Hall, for Matriculation, etc.

Mr. Hanbury, M.A., 24, Old-square, Lincoln's-inn, W.C., reads with his Class for the Preliminary Examination in Arts, College of Surgeons, and for the Matriculation Examination of London University. Mr. Hanbury is assisted by efficient Lecturers in French and Chemistry. Resident Pupils are received.

Mr. Murray, B.A., Arkteon House, Wray-crescent, Tollington-park, N., prepares for the Preliminary Examinations at Royal College of Surgeons and Apothecaries' Hall, and the Matriculation at University of London.

Hartley Institution, Southampton. Principal Dr. F. T. Bond, B.A. Recognised by the Royal College of Surgeons. Students prepared for the regular Curriculum of the Medical Schools.

South London School of Chemistry and Pharmacy, 231, Kennington-road, S.E. Director, Dr. Muter. Preparation for Examinations in Classics, Mathematics, Chemistry, Physics, Botany, Materia Medica, and Natural History. Evening Classes for Students engaged during the day.

Mr. J. Pincott, F.R.G.S., Telham House, Brixton-hill, S., prepares Students for the Preliminary Examination of the Royal College of Surgeons and the Matriculation of the London University.

The Drs. Power, 8, Red Lion-square, Holborn, W.C., continue daily their Lectures and Examinations, preparatory to the various Competitive and Pass Examinations.

Dr. Steggall, 2, Southampton-street, Bloomsbury-square, gives instruction to Medical men and Students in all the branches of their studies.

Mr. Weightman, M.A. Cantab., receives Pupils for the Preliminary Examination and Medical Jurisprudence, at his chambers, 1, Mitre-court, Temple, E.C.

(For fees, etc., see Advertisements.)

DAYS AND HOURS OF INTRODUCTORY LECTURES

TO BE DELIVERED AT THE DIFFERENT MEDICAL SCHOOLS.

IN THE METROPOLIS.

	Days and hours, p.m.	
St. Bartholomew's Hospital and Medical School ...	Oct. 2,	No Introductory Lecture announced.
Charing-cross Hospital and Medical Coll.	„ 2, 8	Dr. T. Henry Green.
St. George's Hospital Medical School ...	„ 2, 2	Dr. John Clarke.
Guy's Hospital Medical School	„ 2, 2	Dr. Henry Oldham.
King's College Medical Department ...	„ 2	Prof. Rutherford.
London Hospital Medical College ...	„ 2, 3	Dr. W. J. Little.
St. Mary's Hospital Medical School ...	„ 2,	Dr. A. Meadows.
Middlesex Hospital Medical School ...	„ 2, 3	Dr. John Murray.
St. Thomas's Hospital Medical College...	„ 2, 2	Mr. Le Gros Clark.
University College Faculty of Medicine	„ 2, 3	—
Westminster Hospital Medical School ...	„ 2, 8	Dr. Basham.

IN THE PROVINCES.

	Days and hours, p.m.	
Leeds School of Medicine	Oct. 2, 12	Dr. T. Clifford Allbutt.
Liverpool Royal Infirmary School of Medicine	„ 2, 3	Dr. W. Carter.
Manchester Royal School of Medicine	„ 2, 12	Mr. R. T. Hunt.
Newcastle-upon-Tyne Coll. of Medicine	„ 2, 2	Dr. G. H. Philipson.
Sheffield School of Medicine	„ 2, 4	Mr. Alfred Allen.

The Winter Session of the Bristol Medical School will commence on October 2, and the Queen's College Medical School, Birmingham, on October 2.

TABLE OF FEES CHARGED IN THE MEDICAL SCHOOLS OF ENGLAND

FOR ALL LECTURES AND HOSPITAL PRACTICE REQUIRED FOR THE LICENTIATE EXAMINATIONS OF THE ROYAL COLLEGE OF PHYSICIANS OF LONDON AND THE LONDON SOCIETY OF APOTHECARIES, AND FOR THE MEMBERSHIP EXAMINATION OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

	£	s.	d.
London.			
St. Bartholomew's (in three half-yearly instalments of £36 15s., £36 15s., and £36 15s.)...	110	5	0
Charing-cross (in three yearly instalments of £34 13s., £31 10s., and £14 14s.; in the case of Matriculated Students a deduction of 8 per cent.)	80	17	0
St. George's Hospital (in yearly instalments of £42, £42, and £10 10s.)—(with the exception of Practical Chemistry) ...	94	10	0
Guy's Hospital (in three yearly instalments of £40, £40, and £20)	100	0	0
King's College (in one sum)	100	0	0
„ (in instalments of £52 10s., £42, and £10 10s.) ...	105	0	0
London Hospital (in two instalments of £45 and £50)	90	0	0
St. Mary's	84	0	0
Middlesex, unlimited (or in yearly instalments of £35, £35, and £20, and £10 each succeeding year)	90	0	0
St. Thomas's (in yearly instalments of £40, £40, and £20, and £10 each succeeding year), unlimited	105	0	0
University College (payable in yearly instalments of £47 16s. £38 7s., and £18 11s.)	104	14	0
Westminster (in one sum)	70	0	0
„ (in yearly instalments of £35, £30, and £10) ...	75	0	0
The Provinces.			
Birmingham—Queen's College and Hospital	85	0	0
Birmingham—Queen's College and General Hospital	85	0	0
Bristol Medical School and Bristol Royal Infirmary	109	0	0
Bristol Medical School and Bristol General Hospital	97	15	0
Leeds Medical School and Infirmary (in two yearly instalments)	88	4	0
Liverpool Royal Infirmary School	78	15	0
Liverpool Royal Infirmary School and Northern Hospital ...	73	10	0
Manchester Medical School and Infirmary	84	0	0
Newcastle School and Infirmary (in one payment)	64	4	0
Sheffield Medical School and Infirmary	76	15	0

TABLE OF FEES CHARGED IN THE MEDICAL SCHOOLS OF ENGLAND

FOR THE LECTURES AND SURGICAL PRACTICE REQUIRED BY CANDIDATES FOR THE DIPLOMA IN DENTAL SURGERY OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

	£	s.	d.
St. Bartholomew's (the "General Subjects required") payable in two half-yearly instalments of £26 5s. each	52	10	0
St. George's Hospital and School (not including Prac. Chem.)	45	0	0
King's College (in one sum)	67	0	0
„ (in two yearly instalments of £50 and £20 7s.) ...	70	7	0
St. Mary's	52	10	0
Middlesex (in two yearly instalments of £26 5s. and £15 5s.) ...	42	0	0
St. Thomas's (by instalments of £40 and £10), in one sum ...	45	0	0
Westminster Hospital (in yearly instalments of £20 and £10) ...	30	0	0

ORIGINAL LECTURES.

LECTURE ON OPTIC NEURITIS FROM INTRACRANIAL DISEASE.(a)

DELIVERED AT THE LONDON HOSPITAL.

By J. HUGHLINGS-JACKSON, M.D., F.R.C.P.,
Physician to the London Hospital and to the Hospital for the Epileptic and Paralysed.

(*Continued from page* 243.)

8. *Rapid and Permanent Failure of Sight in Neuritis.*—Occasionally sight fails rapidly—in a day or two, for instance. I do not know how this is. (Palsy of a cranial nerve will come on suddenly, even when it depends on gross disease—syphilitic disease, for instance.) It is important to note this occurrence for two reasons. 1st. Those who do not use the ophthalmoscope may get a very wrong date for the amaurosis, or, rather, for the changes on which it depends, and may perhaps be misled to suppose that the loss of sight is owing to some such sudden change as hæmorrhage in the retina. Yet, although the onset of blindness or sudden ingravescence in defect of sight in cases of optic neuritis must of necessity imply a change, the ophthalmoscopical appearance may not alter, notably, at all events. 2nd. If we use the ophthalmoscope, or if we use atropine, or if we apply a blister to the head, or adopt any new kind of treatment, the patient may blame us for his blindness if he saw well before such procedures. A patient who reads the smallest print and supposes his sight to be good may, as we have observed (No. 5), have double optic neuritis. The use of atropine affects his sight for near objects gravely, and if, from advance of the neuritic process, what I may call retinal sight fails before the effect of the atropine has passed off, he very naturally blames us for the subsequent permanent affection of his sight. A patient now in the Hospital when asked how long her sight had been bad replied "only since the drops were put in." She has double optic neuritis. We must, then, when we discover neuritis, sight being good, tell the patient that his eyes are really not good, and that we are anxious about his sight. Whether we give this warning or not we shall be blamed by an unintelligent patient for "tampering with his eyes." We must, however, act for our patient's good, regardless of selfish considerations. In very many cases we can see enough for diagnostic purposes without using atropine.

9. *The Nature of the Intracranial Disease most often associated with Double Optic Neuritis.*(b)—Contrary to the usual method, it is convenient here to speak of the *nature* of the intracranial disease which leads to neuritis before we speak of its locality. I have two statements to make as to the nature of the disease. 1. There is usually a gross change, or, as I have called it, "coarse" disease. I have seen double optic neuritis with glioma, hydatid cyst, abscess, syphilitic "deposit," and with blood-clot. In short, by gross or coarse disease, I mean a "lump of something"—an adventitious product.(c) The second statement is implied in the first. 2. Double optic neuritis does not point to any *particular* kind of coarse disease, but simply to coarse disease of *some* kind. I think this generalisation is most important. You will properly say that the several adventitious products I have named are quite different things. This is obvious enough, but they are all alike in this—each is a "foreign body," and each may produce just the same kind of optic neuritis.

That some "foreign bodies" are more likely to produce optic neuritis than others, I need not deny. The question is much more difficult than appears at first glance. There is the position to be considered; for certain adventitious products affect particular localities. Thus, the rule is that abscess occurs in the mass of the cerebrum or cerebellum, and blood-clot in the motor tract. Blood-clot is very rarely associated with simple optic neuritis (not very uncommonly with the neuro-retinitis of Bright's disease). I have never seen optic neuritis in recent cases of cerebral hæmorrhage. So rarely does double optic neuritis occur from clot, that if you find it in a patient who is hemiplegic, and whose history seems otherwise to indicate clot, you should, at all events, consider the diagnosis of tumour to be as likely as that of clot; for hemiplegia occasionally comes on suddenly from tumour (probably by hæmorrhage from the tumour). If we know the double optic neuritis to have been present at the time when the hemiplegia came on, we should diagnose tumour. If it come on some weeks after, we should be in doubt; but even then tumour is more probable.

I have spoken above of a Physician's experience, and I hasten to qualify my remarks. I see those patients who have *severe cerebral disease.* No one ever consults me for defect of sight only, but for such symptoms as severe headache, convulsion, and hemiplegia, with which optic neuritis often occurs. To me defect of sight is but one symptom, and not the most important one, in a series. I admit, then, that my experience is of necessity one-sided. Further, I admit that in a few cases of severe cerebral disease where I have discovered double optic neuritis, I have found no kind of coarse disease post-mortem. I have been wrong several times in the diagnosis of an adventitious product within the skull in cases where there had been found double optic neuritis, but I have far oftener been wrong by neglecting the inferences above stated to be deducible from the presence or absence of optic neuritis—wrong in saying there *was* an adventitious product when the discs were normal, and wrong in saying there *was not* when there was double optic neuritis. I feel, therefore, justified in saying that double optic neuritis does point *very strongly indeed* to coarse disease inside the head. You will not misunderstand me to imply that you are to diagnose tumour or other coarse disease of the brain solely by the ophthalmoscope. You have, in most cases, *no need* to rely on this one condition. You do not diagnose phthisis by the physical signs alone. You may say that you would be right in most cases if you did trust to physical signs alone. I may go so far as to the ophthalmoscopical signs. You would be right in most cases, I believe, if you diagnosed coarse disease within the skull by the presence of optic neuritis.

There is one important matter to be mentioned under this head. I admitted (No. 4, *b*) that I cannot always tell *by the ophthalmoscope* whether there is optic neuritis or the swollen disc, or what is described as the swollen disc; but I am convinced that this matters less than at first glance appears in the *diagnosis* of the nature of cerebral disease. If you find swelling of the discs, with or without hæmorrhages, with tortuosity of the veins and obscuration of the course of the arteries, you may—whatever you call or however you explain these appearances—infer in the vast majority of cases occurring

(a) This lecture was delivered several years ago, and, with modifications, again in June last, in reference to particular cases of cerebral disease. As since 1863 I have published numerous papers on Medical Ophthalmoscopy (Royal London Ophthalmic Hospital Reports), this lecture necessarily involves considerable recapitulation; but there is no impropriety in reproducing in a condensed form the facts stated in former papers, and the opinions therein expressed, now partly modified.

(b) I speak not only of *amaurosis* from optic neuritis, but of optic neuritis *with or without* defect of sight. If a patient has optic neuritis and yet sees well, I should think the ophthalmoscopic appearances as good evidence towards the diagnosis of the general nature of the intracranial disease as if there were great defect of sight.

(c) The following list will show the great variety of pathological changes found post-mortem in cases of optic neuritis. I note only those cases which have been under my own observation, and which I have published from time to time during the last eight years. The list could be considerably extended were I to mention unpublished cases and cases I have seen in the practice of other Physicians:—

1. Cancer of the base of skull and middle lobe of brain (Roy. Lond. Opth. Hosp. Rep., vol. iv., pt. iv., p. 398. Autopsy in the next number). 2. Tumour in the cerebellar fossa, tumour at the sella Turcica and in the left posterior cerebral lobe. Unfortunately there is only a note of atrophy of the optic nerves, and, therefore, it is only an inference that there had been neuritis (*op. cit.*, p. 425). 3. Hæmorrhage in left middle cerebral lobe (*op. cit.*, p. 428). 4. Tumour of the right hemisphere (*op. cit.*, p. 431). 5. Blood-clot (*op. cit.*, p. 435). 6. Syphilitic mass in the right cerebral hemisphere (*op. cit.*, p. 442). 7. Softening of several convolutions of hinder part of anterior lobe (Roy. Lond. Opth. Hosp. Rep., vol. v., pt. i., p. 68). 8. Tumour of the right corpus striatum and neighbouring convolutions (*op. cit.*, p. 76). 9. Syphilitic disease of each cerebral hemisphere. Autopsy after publication (Lond. Hosp. Rep., vol. iv., p. 335). 10. Abscess of left cerebral hemisphere (*op. cit.*, p. 381). 11. Abscess of left cerebral hemisphere (*op. cit.*, p. 387). 12. Large hydatid cyst of left cerebral hemisphere (*op. cit.*, p. 391).

13. Syphilitic disease of right cerebral hemisphere (St. And. Rep., vol. iii., p. 198; also *Lancet*, October 24, 1868). 14. Disease of the surface of right cerebral hemisphere, supposed result of abscess. The patient had been trephined for cerebral symptoms following a blow. (St. And. Rep., vol. iii., p. 199). 15. Brief note of a case in which syphilitic disease of the brain was found (St. And. Rep., vol i.).

16. Tumour of cerebellum (*Medical Times and Gazette*, June 17, 1865). 17. Syphilitic disease of the left hemisphere. Autopsy after publication of case (*British Medical Journal*—Clinical Society—April 30, 1870). 18. Glioma of left hemisphere—neuritis on right side only (next number of Roy. Lond. Opth. Hosp. Rep.). 19. Note of case of syphilitic disease of each cerebral hemisphere. Examination of optic nerves and retina by Dr. Hermann Pagenstecher (*op. cit.*).

20. Note of case of tumour of middle lobe of cerebellum (*British Medical Journal*, August 26, 1871). 21. Note of case of glioma of anterior cerebral lobe (*Lancet*, October 29, 1869). 22. Case of glioma of crus cerebri (ditto). 23. Tumour of left cerebral hemisphere and of each cerebellar lobe. Changes in discs slight and doubtful (*Medical Mirror*, September, 1869).

in *Medical* practice that there is an adventitious product within the head. You usually have other evidence. There is severe pain in head, and perhaps urgent vomiting—symptoms I shall more particularly consider in future lectures, when speaking of the diagnosis of tumour of the brain.

In chronic cases you will scarcely ever be wrong; in acute cases there is more difficulty. In some cases of tubercular meningitis and in some cases of pyæmia you may find a swollen disc(d) —or find the disc much swollen, let us say—but, so far as I have observed, only shortly before death. In the cases of pyæmia there is no difficulty, because the diagnosis of that affection by other kinds of evidence is easy. And in most cases of meningitis, tubercular or non-tubercular, I have not seen any considerable alteration of the discs even shortly before death—nothing so marked as any of the stages of optic neuritis I have described. (See No. 4). In a case of universal meningitis, I found no morbid ophthalmoscopical signs (see *Medical Times and Gazette*, Nov. 2, 1867); and recently in another I found, after very careful examination, at the most only enlargement of the large retinal veins, and this was a few hours before the patient's death, when respiration was very much embarrassed. The discs were also examined by Mr. Waren Tay. The meningitis was basal, and there was a cerebral abscess as well.

10. *Conditions under which Double Optic Neuritis scarcely ever occurs.*—Here I must draw your attention expressly to the fact already indirectly implied, that in certain nervous affections optic neuritis scarcely ever occurs. This negative evidence is really most valuable, and yet, so far as I know, little, if any, attention is ever given to it. Optic neuritis very rarely occurs in those cases in which there is no coarse change—no adventitious product. It does not occur, or very rarely occurs, in the neuroses. It is rare in chronic and general convulsions (epilepsy), although not uncommon in partial convulsions—*e.g.*, convulsions beginning in the face, arm, and leg; in the former there rarely is *coarse* disease (no lump), in the latter there frequently is. I have never seen double optic neuritis in chorea.(e) Now chorea, I think, depends on plugging of small cerebral arteries; but at all events, it does not depend on gross change.(f) I have never seen optic neuritis with hemiplegia from local softening, the result of embolism or thrombosis.

11. *Double Optic Neuritis is not a Localising Symptom.*—Now, we have arrived at the conclusion that in most cases there is coarse disease as a cause—an indirect cause—of the neuritis. We have next to find out where this disease is placed.

Double optic neuritis is of no value in localising, although it depends on local disease. You may suppose I have nothing further to say. I wish to guard you against certain easy inferences which are in most cases fallacious.

Contrary to what you would naturally expect, the coarse disease does not, as a rule, directly involve any known part of the optic(g) nervous system. There may be disease of the base of the skull which squeezes or involves the optic nerves, but double—I say double—optic neuritis does not help you to that diagnosis, and you never can make it unless *other* symptoms are present which point to disease of the base, such as palsies of cranial nerves. I shall speak of these cases in another lecture. I shall also then speak of the series of symptoms which point to pressure of a tumour on the corpora quadrigemina. I say now two things: that whilst double optic neuritis implies in most cases the existence of an adventitious product within the cranium, it tells you *by itself* nothing whatever as to the seat of that product. In other words, it is not a *localising symptom*, although, contradictory as it may seem, it depends on local disease.

The disease causing neuritis—never forget that I speak all along of coarse disease, of adventitious products—is rarely limited to the motor tract; perhaps, however, because adventitious products rarely occur in the motor tract. It is rarely found with hemiplegia from clot. Indeed, it is rarely found with any kind or degree of hemiplegia, with the important exception of hemiplegia after a convulsion which begins unilaterally—a hemiplegia in which, when there is coarse disease, the coarse disease is *not* of the motor tract. This is the exception proving the rule.

The disease is mostly of the cerebrum or cerebellum.

12. *Recapitulation.* — Here let us recapitulate. Suppose you discover double optic neuritis, and let us grant that there is severe headache also, you may feel pretty certain that there is coarse disease of some kind within the patient's head; but you have no evidence to shew either the nature of the disease (beyond that it is of *some* coarse kind), or to shew its position. For either of these points in diagnosis you require other evidence, and, as not unfrequently it is not obtainable, it happens very often in the early history of a case of severe cerebral disease that your diagnosis is incomplete. You can only say that the patient has an adventitious product of *some* kind in *some* part of the intracranium. This is practically the important matter in prognosis.

(*To be continued.*)

(d) I have already—Footnote (c), p. 241—quoted Liebreich as to the difficulty there is in saying whether the ophthalmoscopical condition we discover is to be classified as engorged papilla, neuritis descendens, or as neuritis intra-ocularis. Soelberg Wells, who speaks of two principal forms of optic neuritis—the engorged papilla and descending neuritis—after describing their respective peculiarities, says (the italics are mine)—"It must be stated, however, that the *distinctive* characters of these two forms of neuritis are not *often* so strongly marked, and also that *the one may pass over into the other*, and thus give rise to a *mixed* group of ophthalmoscopical appearances."

It must never be forgotten that the appearances in cases of optic neuritis in which, post-mortem, we find "coarse" disease vary very much at different stages (see No. 4, p. 241), and, so far as I can judge by the descriptions authors give of the ophthalmoscopical appearances in different "varieties" of optic neuritis, the same case would have to be differently classified according as it was seen early or late. Indeed, my own impression is that there is only *one* kind of optic neuritis from adventitious products within the cranium. I would reserve the term swollen disc or engorged papilla for what is seen in a rude clinical group of cases—some cases of meningitis and some cases of pyæmia; I surmise that there is in these cases venous thrombosis. On this matter, see Clifford Allbutt's papers in this journal, (vol. i., 1868, p. 575 and p. 629), where he speaks of ischæmia of the discs.

(e) Indeed, I have never seen *any* morbid ophthalmoscopical appearances in chorea, except in one case, and then they were very trifling. Dr. Clifford Allbutt's experience has led him to the same conclusion.

(f) In some cases of cerebral tumour we have choreiform movements, as Tuckwell points out. He quotes Todd on this matter.

(g) This expression is used as a short term inclusive of the optic nerves, optic tracts, and corpora quadrigemina.

ORIGINAL COMMUNICATIONS.

ON RHEUMATISM.

ITS NATURE AND ORIGIN.

By J. JAMES RIDGE, B.A., B.Sc., B.S., M.D. Lond.

(*Continued from page* 275.)

Having in previous papers endeavoured to show the baselessness of the theory which ascribes the production of rheumatism to the development and constant presence of an acid *materies morbi*, and having also attempted to show the *primâ facie* probability of its simple nature by its affinity with some diseases and association with others, it now remains for me to elucidate the various reasons for accepting this explanation of its pathology, and, as far as possible, to trace the morbid process.

I.—The Arthritis is produced by an Influence which operates through the Nerve-supply of the Affected Parts.

That inflammation can be excited by the influence of nerves is, for the most part, generally admitted. For example—Sir James Paget mentions the inflammation set up in one eye by the long use of the microscope with the other. Brown-Séquard mentions a case in which purulent otorrhœa occurred at every attack of neuralgia of the auriculo-temporal nerve. The phenomena of herpes zoster seem also associated with modification of nerve influence.

The theory of the production of arthritis in a similar manner has not met with such acceptation. Dr. H. Day, in an article on the "Spinal Origin of Rheumatism,"(a) brings forward several facts which point in this direction. They are principally derived from the experience of some army Surgeons during the late American war. I will briefly state them on his authority. In the eighth volume of the *American Journal of Medical Sciences*, p. 55, Professor J. K. Mitchell relates four cases in which a rheumatic condition evidently resulted from spinal nerve lesion. Drs. Weir Mitchell, Morehouse, and Keen, United States army Surgeons in charge of the wards for diseases of the nervous system, Philadelphia, have written a small work on "Gunshot Wounds, and other Injuries of the Nerves;" at p. 83, in speaking of the "alterations in the nutrition of joints" occasioned by spinal nerve injury, they call attention to a subacute inflammation of the joints, which may attack any or all of the articulations of the limb whose nerves are injured, which occurs at any time after the first few days. They have observed, also, the same copious sour-smelling perspirations in some cases. Dr. Day also instances the association of rheumatism with cerebro-spinal meningitis; and this far stronger argument—viz., the remarkable connexion

(a) *Medical Times and Gazette*, August 31, 1867.

of rheumatism with chorea, the latter being almost constantly dependent on spinal irritation. Believing the articular inflammation to be due to spinal irritation, he narrates a case which was successfully treated by the application of blisters and cupping to the spine. With regard to chorea, I have before noticed the case given by Trousseau, in which it was established by fright, and gave place after a time to true articular rheumatism. The possibility of such an origin lets in a flood of light upon the genesis of rheumatism; we see a chain of causation, even if the links of the chain cannot be accurately defined. Dr. Day suggests that this theory does not necessarily interfere with Dr. Prout's idea of the presence of lactic acid in the blood, but may be the cause of its presence. True; but if the cause of the changes which the nervous system undergoes can also excite other simple inflammations, and if, on the other hand, we know no such process as the production of lactic acid in excess under the influence of the nervous system—and, if we did, that no excess of lactic acid has been demonstrated in rheumatism—where is the necessity for supposing such an extra step in the process? If the inflammation can be set up directly, why, without incontestable proof, should we imagine that it is done circuitously?

The following considerations tend to confirm this view:—(1.) That the arthritis is frequently symmetrical. This is due, I believe, to the fact that the nerve-supply of symmetrical parts is derived from the same segment of the cord, being closely connected by commissural fibres. To me this is much more intelligible as an explanation of all symmetrical diseases than the hypothesis that one part of the body is more like the exact spot on the other side than the immediately adjacent similar tissue. It is the nervous system which is the grand differentiator of similar tissues in each half of the body, while it is the sole connector of distant corresponding parts, and at the same time regulates their actions. (2.) That the various so-called metastases occur. Trousseau(b) has come to the conclusion that the cerebral form of rheumatism is a neurosis. There are cases which present the symptoms of acute meningitis during life, which have not exhibited the usual inflammatory changes after death, even when they have continued for some days. On the other hand, we must recollect that all the physical appearances of meningitis have now and again been discovered, the usual symptoms having been present during life. The absence of the inflammatory changes cannot be ascribed to want of time. How can they, then, be explained? Of course we may say plausibly that the irrepressible lactic acid poisons the encephalic centres; if so, how beneficial is the prevalent dislike of humankind to sour milk! Or we may take Dr. Bazire's view when he says, in reference to cerebral rheumatism—"The reason why such symptoms do not arise in every case of rheumatic fever seems to be that the rheumatic poison can only play the part of the lighted match, and that there must be, in addition, combustible material present. That combustible material is the nervous susceptibility of the patient, his peculiar disposition to the development of cerebro-spinal symptoms, from acquired or hereditary causes." That this virus does not exist it is impossible, as I have before remarked, to prove positively; but I think there is another explanation which is equally consistent, and does not introduce another unknown quantity. No doubt we can speak but vaguely of these engines of the mind; still, we see their normal actions interrupted or distorted—coma, delirium, convulsions, or chorea produced—and we may or may not, at the same time, have meningitic inflammation. Is it not consistent, then, to suppose, until it is proved otherwise, that we have a disturbance of the intellectual and other centres of a similar kind to that which produces inflammation when it affects the centres presiding over nutrition? It would be impossible to reproduce here the whole of Trousseau's lecture on "Cerebral Rheumatism," but it is one of great importance and very suggestive, as well as the notes of Dr. Bazire, and should certainly be read in connexion with this subject. He says(c)—"We are thus led to infer, both from clinical observation and from reasoning, that, in consequence of the cerebral rheumatism, the nerve-substance has probably undergone a modification analogous to that which is believed to occur in tetanus, hysteria, etc., a modification the nature of which is yet obscure and not anatomically demonstrable, but which nevertheless exists, as everything at least seems to indicate, although it cannot be referred to any nosological type."

Trousseau will not admit that when the cerebral form appears during ordinary rheumatism there is true metastasis, because the joint affection is sometimes unaltered, and does not usually altogether disappear, though it may diminish and there may be oblivion to pain. But he mentions cases in which alternation of cerebral and other symptoms was well marked. A young girl had spinal pain and paraplegia. After three days she was cupped, when all symptoms of paraplegia disappeared; but amaurosis and hemiplegia immediately set in. A few leeches were applied, and, two days afterwards, pains in the joint appeared. In another case, rheumatic arthritis preceded for a few years the symptoms of paralysis; and these symptoms alternated with those of articular rheumatism. "At one time, cephalalgia and sensorial disturbances are present; at another, spinal pain and weakness of the lower limbs; sometimes, again, the cerebral and spinal symptoms are replaced by painful swelling of the joints. This woman, then, had alternately cerebral and spinal rheumatism."(d) I have before mentioned Dr. C. Allbutt's case, in which the symptoms of spinal meningitis were displaced by those of acute articular rheumatism.

Do not these facts go far to prove the central origin of rheumatism? This hypothesis furnishes us with a clue to the cause of the wonderful metastases which occur—so irregular and yet so often methodical. An influence is at work upon the various nerve-centres. Now the nutritional are involved, and the effect is arthritis—the influence flickers about among the various articular nerve-centres, and various joints suffer; then the pericardiac are attacked, or those connected with the meninges, and pericarditis or meningitis results; by-and-bye the intellectual centres suffer, and delirium, coma, etc., result; or the motor centres are affected, and there is paralysis more or less developed, with or without choreic agitation, or, may be, tonic or clonic spasm. All these symptoms I regard as the effect of a similar cause; as it were, the steam is shut off from one engine and turned into another, and according to the function of the engine are various effects produced.

Having thus traced the morbid process backwards to the invisible molecular changes which occur in nerve-ganglia, where from imperfect physiological knowledge it is impossible at present to follow it, we must turn to the causes of the disease, and endeavour to trace these as nearly as we can to the same point, in the hope that some day we may see the connecting link in the now secret mechanism of nerve-influence.

II.—The Arthritis is produced by a Reflex Influence.

The cause most frequently operative in exciting rheumatism is, without doubt, the influence of cold, generally combined with damp. It will be well first to inquire what view is generally entertained as to the *rôle* which cold plays in the production of this disease. Dr. Fuller tells us that cold locally applied produces none of the symptoms of rheumatism, neither do its primary general effects resemble them; but that it is frequently an efficient cause, "by exercising a depressing influence, interfering with the business of nutrition, and so, through perverted assimilation, giving rise to the formation of the *materies morbi*."(e) That the direct effect on the tissues of the local application of cold is not sufficient to set up rheumatism may be granted, although its influence on a part at all events favours the establishment of the inflammatory action in that region in preference to other parts. Yet it is unreasonable to consider the active production of rheumatic inflammation to be entirely disproved because, indeed, it cannot produce as invariably intense local and persistent effects as a red-hot poker or six inches of cold steel! Dr. Fuller's list of the general effects of cold is incomplete, and he omits just those effects which alone explain the disease. In fact, he himself unconsciously ascribes another general effect to cold, when he says that it has this wonderful power of giving rise to the generation of the lactic acid on which so much depends. The cold, he says, exercises a depressing influence, and causes perverted assimilation. We can easily imagine the production of lactic acid—that is, the deficient oxidation of starchy materials—during this general depression. But is there no state of "reaction" (so-called)—a reaction out of all proportion, both as regards degree and duration, to the stage of depression; a reaction of intense fever, during which oxidisable materials are rapidly consumed, and the amount of water and carbonic acid is largely increased, and thrown off at every outlet? How is it possible for any lactic acid to continue as such, and be the exciting cause of the continued morbid action? If the cold caused the formation of the first lactic acid poison, would not the reaction destroy it, and prevent its further production? And if (in order to be consistent) the advocates of the *materies morbi* theory attribute all the fever and inflammation to the lactic acid or other virus

(b) "Clinical Medicine," Sydenham Society's *Transactions*, vol. i., p. 529.
(c) *Op. cit.*, p. 533.
(d) *Op. cit.*, p. 525.
(e) *Op. cit.*

generated, and not to reaction, what is the reason why cold in causing rheumatism alone is not followed by reaction? And why should we suppose that a poison is the cause here both of febrility and inflammation, when both these are present in common catarrh and numberless other diseases, without a suspicion of its presence?

Yet cold has a most decided influence in the genesis of the disease. It is something more than a most remarkable coincidence that the rheumatism breaks out just after exposure to cold and damp in so many thousands of cases. We cannot reasonably suppose that in all these the lactic acid, or rheumatic virus, had been gradually accumulating up to rheumatism-point, and that the cold acted only by adding just a little more virus than was previously present—just enough to start the whole morbid process, lasting for days or weeks.

Another effect attributed to cold is that of so affecting some joint or other—"lowering its vitality" some call it—as to cause the rheumatic arthritis to occur first there. As a fact, we know that the inflammation generally does attack first any joint which has been specially exposed. Yet even on this supposition, that the vitality has been merely lowered by cold, as well as on that which I advocate, that the inflammation is established solely by nerve-influence, but one explanation will account for the effect. The influence on the affected parts is a *reflex* one. The actual amount of cold in degrees Fahrenheit is, as a rule, inconsiderable; the effect is most frequently produced by multiple and rapid variations in the degree of cold—a kind of action by which, I need scarcely remark, nerves can most powerfully be affected. In fact, rheumatism is most prevalent, not in countries whose climate is coldest, but where it is damp and variable. When we recollect how long it takes even for intense cold to chill deep textures, we can scarcely think that the interior of even such a comparatively superficial part as the knee-joint can be chilled by the application of the slight cold which usually operates. Yet any doubt which may seem to exist here is quite removed when we consider those other cases in which thick pads intervene to screen the joint. For instance, the shoulder-joint is very commonly attacked, as when it has been exposed in bed with a window open; or the hip-joint from sitting on some damp seat. Here there can be little doubt that the influence is reflected. In the case of the heart, Dr. Fuller imagines that we have conclusive evidence against the direct influence of cold, inasmuch as it is perfectly sheltered. Against all local chill the protection is complete, but not against this reflex influence.

And we cannot too constantly remember that we are dealing with no extraordinary or unusual effect of cold. The establishment of inflammation of serous membranes, mucous membranes, and parenchymatous tissues by its influence is so frequent that it might almost be regarded as an axiom. And this influence is often exerted in such a manner that it is impossible to conceive of it otherwise than as a reflex influence. It is no answer to say that we cannot point out the particular nerves through which that influence is exerted; the facts remain, and no explanation better than this can be given. To me it seems just as reasonable to attribute the inflammatory process to the action of cold as the involuntary inspiration which results from its application to the surface of the skin of the face or chest, or as the sneezing or shivering which it can excite. We know, too, that cold can produce neuralgia and facial paralysis, and can check menstruation. If cold, then, is able to excite inflammatory action in one organ—*e.g.*, a lung—there is a probability that it can do so in others; and if this capability of cold is recognised, there is no unreasonableness in attributing an inflammatory action—rheumatic arthritis—which is generally preceded by exposure to cold, to the action of this, exerted in a reflex manner, through the agency of the nervous system.

But then, it is said, cold does not invariably produce this effect. To some it will act as a muscular and nervine tonic and stimulant; in others it will excite rheumatism; therefore, it has no direct influence, and the previous constitutional state is the all-important condition. The conclusion that, therefore, the disease must have a humoral origin, or that a poison exists in the one set of cases which does not exist in the other, is unwarrantable. The constitutional disposition is, doubtless, a very important factor; but is there no such thing as variation in the degree of susceptibility of the nervous system to receive impressions? Having to refer to this again, I will pass on to notice another objection which has been raised to the view of its purely nervous origin—namely, the variable and often long duration of the disorder, which Dr. Fuller thinks is altogether inexplicable, except it be admitted that a *materies morbi* is generated *de novo* in the system. Is not chorea as long continued, or whooping-cough?—both dependent on nerve alteration, and largely influenced by habit. Or, to take a simple catarrhal inflammation, does not bronchitis often last as long, have as many exacerbations (often unaccountable), and become just as chronic? While quite agreeing with Dr. Fuller that cold and atmospheric vicissitudes are not essential to the production of rheumatism, I cannot quite see that the arguments he employs establish this so thoroughly as he seems to think. It is true that patients admitted into a Hospital for other diseases, kept in bed in a ward heated to 65° Fahrenheit, nevertheless sometimes fall victims to it. Dr. Fuller says that here cold cannot have been the cause, because they were never exposed to it. Perhaps they may not have been exposed to cold and damp to any such extent as would be necessary to develope rheumatism in a healthy individual, but it does not follow that, under such circumstances, they could not be exposed to quite enough to develope it in persons whose power of resistance to morbid influences is probably at the lowest ebb. The draughts necessary for ventilation in some Hospitals are quite enough to account for rheumatism in anyone, even if patients never did imprudent things which they feel to be the cause of their illness or relapse, and are therefore afraid or ashamed to own. In fact, until the balance of the nervous system has been recovered, and raised to its former level, influences apparently insignificant, and which would be so in health, are quite sufficient to re-establish the morbid process. A too early dinner of meat will thus often seem to be the cause; and like instances will occur to everyone.

(*To be continued.*)

ON HÆMOPTYSIS IN CHILDREN, ILLUSTRATED BY TWO CASES.

By Dr. VALD. RASMUSSEN.

(Translated from the *Hospitals-Tidende*, July, 1871, by J. W. MOORE, M.D., M.Ch. Dub., L.K.Q.C.P.I., Ex-Scholar Trinity College, Dublin.)

(*Continued from page* 277.)(a)

Case 2.—*Suppurative Adenitis of the Glands of the Neck and Root of the Lung—Perforation of the Right Bronchus and Pulmonary Artery—Hæmoptysis—Catarrhal Pneumonia and Peribronchitis—Diffuse Interstitial Nephritis—Caseous Swellings of the Mesenteric Glands.*

J. P., AGED 6, admitted September 12, 1870, to Ward No. 5 of the Municipal Hospital. The patient's appearance pale, sickly, and scrofulous. On both sides of his neck were large, partly suppurating, partly firm glandular enlargements, especially on the left side; many rather small, almost circular, openings, through which the sound could be passed in, under the relaxed edges of the sore, in all directions. The urine contained much albumen. The glandular enlargements were treated by incision and carbolic acid dressing, and—after the suppuration had, in a comparatively short period, ceased—by painting with tincture of iodine. Iron was administered internally.

At the end of October he commenced to cough slightly, without the stethoscope as yet revealing anything except some scattered sonorous râles.

November 11.—The cough unceasingly frequent and troublesome, of a ringing character. The expectoration thin, wheyish, with rather transparent yellowish striæ. Percussion sound muffled in the right supra-spinous fossa, and internally in the upper half of the corresponding infra-spinous fossa. The respiration markedly bronchial, with exaggerated vocal resonance. He had lost flesh and strength, and had scarcely any appetite.

14th.—After having been during all the forenoon much as usual, and having had repeated paroxysms of the same hollow, ringing cough, in one of these he brought up about two fluid ounces of light-red frothy blood, which gushed forth in a stream from his nose and mouth. He immediately fell into collapse, and after a few gasps and pulsations, distant from each other about a minute, he died, at half-past one in the afternoon.

The autopsy was performed the following forenoon. The body was much emaciated; rigor mortis had disappeared. The larynx and trachea lay as if buried in a knotty swollen mass, consisting of enlarged glands, some cheesy, and others containing larger or smaller pus foci. The swellings extended downwards to the roots of both lungs, so that the apex of the right viscus in question was very feebly pervious to air, and compressed. On taking out the right lung, there was found in its root a

(a) *Errata.*—In the first part of this paper (page 275, column 2, twenty-fifth line from the bottom), *for* "a continued maculated fever," *read* "purpura"; and (seventh line from the botttom) *for* "age" *read* "stage."

small cavity, bounded by a glandular mass, except on the external aspect, where its wall was formed by the somewhat thickened pleura. In this cavity, which was filled with slightly coagulated blood, was discovered an opening of tolerably circular form, two millimètres in width, through which it communicated with the primary bronchus. Communicating with the chief branch of the pulmonary artery there was found, a little posterior to the first-named, a slightly larger opening, with attennated yellow borders, particularly on its outer side. Both openings were almost closed by recent coagula. In the pleura there was no deposit of miliary tubercle. The lowest portion of the superior lobe of the left lung was condensed with fresh and old lobular infiltrations, but without cheesy masses. Elsewhere this lung was pervious to air, except that in places, especially in the superior lobe, tubercles with peribronchitic characters were dispersed. The right lung (if the compression already alluded to as existing in its upper portion be disregarded) was otherwise pervious to air. In the bronchial tubes, even the most minute, there was much aërated, coagulated blood, capable of being drawn out in coherent, branchy masses. The heart of ordinary size, very pale. The spleen only slightly enlarged, firm, with very numerous and large follicles. On the surface of the liver strong adhesions, in places very fine; the hepatic structure itself of normal appearance. The kidneys firm, pale; the line of section homogeneous, pale; the pyramids faintly reddish; the uriniferous tubes and the lobular tissue of the cortical substance not recognisable, but the latter had a homogeneous, pale, rather transparent aspect; no amyloid degeneration; the intestinal canal healthy; all the mesenteric glands much swollen, and infiltrated with cheesy matter.

This case belongs to the rarest class. Perforation of the pulmonary artery, with suppuration of the lymphatic glands in the root of the lung, has been, as already stated, indeed, observed before, but extremely seldom and under rather different circumstances than in our case. Rilliet and Barthez are the only authors, so far as I can determine, who mention similar cases. They state(b) that they are aware of only three, one of which was observed by themselves, the remaining two by Berton. In their own and in one of Berton's, as in our case, there existed perforation both of the pulmonary artery and of the primary bronchus. Other authors, as West, indeed, mention this circumstance, but seem merely to have relied on the statement of Rilliet and Barthez.

Apart from the hæmoptysis, our case possesses some interest in a clinical respect also, and although this is somewhat more removed from the reflections which the case most immediately gives rise to, I will, nevertheless, here briefly consider the point in question.

The diagnosis was, during life, set down as tuberculous (cheesy) pneumonia in the superior lobe of the right lung, secondary to the long-continued suppurative adenitis and chronic renal affection. However, on post-mortem examination, it appeared that the right lung was everywhere pervious to air, only a little compressed at its apex by the large glandular swellings round the trachea and in the root of the viscus, and that only in the superior lobe of the left lung downwards were there found scattered recent and chronic lobular pneumonic infiltrations and dispersed peribronchitic deposits. This diagnosis, which, lastly, was necessarily strengthened by the intercurrent hæmoptysis, could, perhaps, scarcely have been made otherwise.

Rilliet and Barthez, who have indeed gained great credit by their study of the so-called bronchial tuberculosis, and especially, too, of the differential diagnosis between that affection and pulmonary tuberculosis, have directed attention to the fact that the percussion sound may be deadened over various parts of the thorax as a consequence of enlarged bronchial glands, but particularly, as in our case, over its upper and posterior portions (in the supra-spinous fossa, and in the superior most internal part of the interscapular region); and that in this immediate neighbourhood, owing to the close relation of parts between the large bronchial tubes and the chest-wall, tubular breathing may be heard, although not at all times. This physical sign it is, however, even with the greatest experience, as also Rilliet and Barthez admit, almost impossible to distinguish from an infiltration of the lung itself, and this especially when, as in our case, there is, or, at all events, there appears to be, a progression in the phenomena.

The perforation of the bronchus probably took place some two weeks before that of the pulmonary artery, whereupon the previously existing slight bronchitis became extremely augmented, the cough more troublesome, and occurring in paroxysms with a ringing sound. The pneumonic infiltrations in the left lung were in all likelihood due to the entrance of pus and masses of detritus from the cavity of the abscess into the most minute bronchial tubes, an assumption that also agrees well with their age. Had the fatal result not occurred so hastily, they would in all probability have become transformed into cheesy masses, and made a starting-point for a general tuberculosis. Such a change had not, however, occurred at the time of death, and in this respect the present case differs from the remaining three on record. The glandular enlargements stood in no relation whatever to the lung affection, but had arisen either primarily, or—as is indeed more likely—by propagation of the inflammation from the cervical glands.

Of initial and so-called idiopathic hæmoptysis I remember to have observed only one instance in my consultation practice. The patient was a boy of 11 years, previously healthy, who in the month of February, after being pelted with snowballs, and having subsequently gone into a warm room, was attacked with hæmoptysis to the amount of one or two tablespoonfuls of blood. The bleeding recurred, according to his parents' account, on the four following days, in about the same quantity. When I saw the lad four months after, he was of a healthy appearance, and physical examination revealed no trace of any alteration in the lungs; while, again, the scanty opaque expectoration, which was brought up by a very trifling cough, contained no elastic filaments.

Hæmoptyses and pulmonary discharges of another origin may also, no doubt, occur in children, but yet generally very seldom, and most frequently the blood is discovered only at the autopsy (apoplexy, lung-infarction), without any actual hæmorrhage having taken place. Thus, they are observed sometimes with gangrene of the lungs, both at the beginning and in the subsequent course of this disease, but only in exceptional cases do they attain any very considerable proportions; sometimes with heart affections, either as infarctions and apoplexies, or as a real hæmoptysis.(c) Attacks of spitting of blood have also been noticed in scorbutis, purpura, and similar diseases.

It still remains to examine what can be the cause of the extreme infrequency of the occurrence of hæmoptysis in children the subjects of pulmonary consumption. This appears to me unquestionably to be an inquiry of great interest, and one which cannot easily be put aside without at the same time renouncing the endeavour, which our science must ever acknowledge, to discover the more or less hidden causes of the morbid phenomena we observe. Setting out from the generally received assumption, first promulgated by Laennec, that the hæmoptysis in phthisis is due to a bronchial hæmorrhage, it will be quite impossible, however much we may set our imagination to work, to find any probable ground whatever why the diminished power of resistance, the defective nourishment of the capillaries, the separation of the mucous membrane, and other similar hypothetical changes in the bronchial mucous membrane, which have been assumed to establish the existence of a bronchial hæmorrhage, should appear less frequently in children than in adults. Nay, more, this becomes quite incomprehensible, if, with Niemeyer, we place a bronchial hæmorrhage of this kind in the same category with epistaxis, which in childhood is so particularly frequent.

The actual state of affairs, however, is, I believe, quite the reverse when we forsake this hypothetical basis and depend on one of a more practical character—namely, the anatomical. There is then greater likelihood of the logical rule *ab esse ad posse* being satisfied, for in assuming a broncho-hæmorrhage in reality a conclusion is drawn *à posse ad esse*.

The burstings of aneurisms or dilatations on branches of the pulmonary artery, running in the walls of cavities, the cause of hæmoptysis in phthisis—as I have repeatedly(d) endeavoured to maintain in opposition to the generally received view—I may perhaps venture to regard as recognised, at all events in their leading characteristics. In each case of fatal hæmoptysis which has since occurred amongst us in our civil Hospitals we have been able to demonstrate this source of the bleeding,(e)

(b) *Loc. cit.*, vol. iii., page 616.

(c) Glass, for example, has ("Upsala Läkareförenings Förhandlingar," vol. i., page 246) communicated three cases in children who suffered from congenital disease of the heart, in which there were found evidences partly of apoplexy, partly of hæmoptysis. In one instance, the patient, a boy aged 4, died of hæmoptysis.

(d) *Hospitals-Tidende*, 1868, Nos. 9—13; 1869, Nos. 11 and 12. *Edinburgh Medical Journal*, 1868, November and December; 1869, August and September. *British and Foreign Med.-Chir. Review*, January, 1869; and elsewhere.

(e) Cases of the kind have been communicated during the past winter, in the *Filiatria*, by Professor Reisz and Lector Gædeken.

and experiences in England, particularly at Brompton, quite agree with this. Dr. Powell, also, in reference to the works of the present author, has communicated to the Pathological Society of London(f) fifteen cases of fatal hæmoptysis occurring at Brompton. Of these fifteen, in twelve the blood proceeded from bursting of branches of the pulmonary artery, running in the walls of cavities; in eleven of them the vessel was aneurismal (five sacciform aneurisms, six varicose); in one the vessel was simply perforated by ulceration; in three the source of the bleeding could not be discovered.

There may be different opinions as to the extent to which this anatomical discovery should be applied in relation to hæmoptyses which are not accompanied by death, and some may perhaps experience a degree of hesitation in going as far in this respect as I have gone; but to assume for certain from the experiences already to hand that every fatal attack of hæmoptysis occurring in a phthisical patient is due to bursting of a vessel in a cavity, will indeed meet with serious opposition.

In children this source of hæmorrhage has not hitherto been pointed out. We have, however, seen in our first case the bleeding arise in this way, as also it was natural *à priori* to suppose should happen; and in opposition to the other negative observations, the present positive discovery, which so remarkably coincides with the experiences met with in adults, possesses a yet greater degree of importance, and gains a retrospective influence. When the three cases of fatal hæmoptysis, with suppuration of a lymphatic gland in the root of the lung and perforation of the pulmonary artery, are excepted, no positive observation as to the origin of the hæmorrhage in children is forthcoming; for the cause of the hæmoptysis assigned by Rilliet and Barthez—namely, pressure exerted by the swollen bronchial glands—is clearly only a hypothesis, which their recent and meritorious investigations on bronchial tuberculosis—especially in its mechanical aspect—have led them to, but of which they have adduced no proof. It should thus, indeed, also be assumed, as regards children, that at all events fatal hæmoptyses proceed from aneurisms in the walls of cavities; and the question as to the rare occurrence of hæmoptysis in children practically limits itself to this: Whether the peculiar anatomical conditions which favour the development of aneurismal dilatations of a vessel in the wall of a cavity are less frequently present in children than they are in adults? This question may, I believe, be decidedly answered in the affirmative.

We have seen that it is stated by authors that hæmoptysis in very young children, within 6 years of age, is extraordinarily rare, and that it becomes more frequent the nearer the age approaches the adult (Rilliet and Barthez, West, Steffen, and others). This, meanwhile, agrees with the special anatomical changes, which also, in fair accordance with the statements of authors, occur within the two periods of age mentioned.

In early childhood, as is well known, the most frequent form under which phthisis is met with is that of cheesy pneumonia—the "*infiltration jaune*" of Rilliet and Barthez. No doubt in this affection cavities form, although far less commonly than in adults, and especially in the so-called florid phthisis. But these cavities, which arise from necrosis of the central infiltrated portions, are situated within cheesy dry masses in which the vessels have long since become compressed or obliterated, and so could not possibly give rise to hæmoptysis. It is interesting—at least, in this point of view—to note that in the few cases where a post-mortem examination was performed on young children the victims of hæmoptysis, such as Steffen's above referred to, there was found, as in our case, in immediate proximity to the cheesy pneumonia, a diffuse interstitial inflammation, with the formation of cavities. It should therefore also be assumed that the hæmorrhage in Steffen's case likewise arose from one of the cavities, and not from the cheesy pneumonia, as we have seen that the author in question himself supposed. If such a breaking down of the infiltrated tissue had been the cause of the violent hæmoptysis, as Steffen supposes it was in the second case, in which no autopsy was obtained, then hæmoptysis in children should be far more frequent than it is in reality. But this view of Steffen seems at best to be but a clinical hypothesis.

In more advanced childhood, on the other hand, cavities occur almost as in adults, and the more especially so the nearer the children have approached the full-grown age. But to this contributes the circumstance that while cavities are found, almost without exception, in all adult individuals the subjects of chronic pulmonary consumption, they are, on the contrary, rare in children. According to Rilliet and Barthez, they are not discoverable in one-third of the children who have died of phthisis.(g) Among 265 autopsies performed on phthisical children, they met with cavities in seventy-seven only; West, in sixteen out of eighty-one. Further, the frequency of cavities, exactly as that of hæmoptysis, increases with age, a circumstance of particularly great importance in support of the view which has been advanced in this paper as to the origin of the hæmoptysis. According to Rilliet and Barthez, cavities are found on post-mortem examination in about one-third of phthisical children between the ages of 1 and 2 years, in less than one-fifth of those between 3 and 5, in less than one-third of those between 6 and 10, and in less than one-half of those between 11 and 15. But another circumstance also contributes to this, to which these authors have paid no attention, but which still further lessens the frequency of such cavities—a circumstance that touches on the question of the origin of the hæmoptysis—namely, the fact that in this number are included the cavities produced by breaking down of the cheesy tissue; and these, as has been seen, do not cause hæmoptyses. This is certainly, also, the reason why cavities in the first two years of life are comparatively frequent.(h)

It is to be remembered that each cavity in the lung whose wall is formed of condensed pulmonary tissue containing non-obliterated vessels—as is far more frequently the case than is generally supposed—may become the seat of aneurismal dilatations with subsequent rupture, but that most frequently it is cavities whose walls are composed of a condensed tissue, a few millimètres in thickness, which is immediately contiguous to permeable tissue, or, in general, such cavities as have to a greater or less degree, but never completely, retained their original bronchiectatic character, that are liable to this change. But the dilatations of the bronchial tubes, which become developed simultaneously with interstitial pneumonia—in what relation these two processes stand to each other is, as is well known, still a matter of controversy—are rare in children. This holds good pre-eminently as regards primary depositions of miliary tubercles, but also as regards those in which cheesy pneumonia secondarily terminates attacks of peribronchitis; and as in adults cavities are most frequently met with, so, also, in children they, when they do occur (in contrast to those met with in adults), have only a slight tendency to ulcerative processes (Steffen). Most usually, indeed, these so-called interstitial chronic pneumonias with formations of connective tissue in children are not primary or interstitial in the general acceptation of the word, as they are somewhat systematically set forth by Steffen, but are developed from an acute pneumonia, the alveolar cellular contents being metamorphosed into connective tissue—which, indeed, cheesy formations generally resemble, the cells in other alveoli forming a cheesy detritus, which in turn gives rise to miliary deposits, just in the same way as the process, most closely in accordance with the description of the different stages of development of pneumonia given by Key, was described in our first case.

If now it is granted, on the one hand, that bronchiectatic cavities, and, in general, cavities with firm (composed of connective tissue) walls, are rare in children, and, on the other hand, that profuse hæmoptyses in adults arise from bursting of aneurismal vessels in cavities, but at the same time only in a comparatively small percentage of the cavities found in phthisical adults, it is then, even apart from our positive observation, a natural sequence that such hæmoptyses should be rare in children. The unusual occurrence of such is also by no means accidental, but rests deeply grounded on the peculiar anatomical alterations with which phthisis is accompanied in children.

The infrequency of hæmoptysis in children, and the coincidence of this with the rare development of the cavities alluded to, thus appear indirectly to support the view brought forward by the present author on a former occasion: that hæmoptyses in the course of chronic pulmonary consumption, whether fatal or very severe, though not followed by death, always arise from the rupture of aneurismal vessels in the walls of cavities.

Dr. Hare, desiring to perpetuate the memory of a legacy of £46,000, left to University College Hospital by one of his patients—the late Mr. Yates—has erected a marble tablet in one of the wards.

(f) At the meeting of November 15, 1870, reported in the *Medical Times and Gazette*, 1870, vol. ii., No. 1066, page 659.

(g) *Loc. cit.*, vol. iii., page 667.

(h) I regret that the short space of time that was available for the elaboration of this *brochure* has not permitted me to detail the abundant material we possess in the post-mortem reports of the Municipal Hospital.

PYOCYANINE.

By J. FAYRER, M.D., C.S.I.

It has occasionally been noticed that pus formed on granulating surfaces has a bluish or greenish-blue tinge, and the coloration has generally been attributed to the presence of a modification of the green colouring matter of the bile, or of the bluish ingredients sometimes found in the urine.

Dr. Gibb, in the *British American Journal of Science* (new series, vol. vi., p. 201), relates a case in which a purulent discharge of this colour was observed in a diseased female breast. The colouring matter is said to have been due to cyanide of iron (Holmes's "Surgery," 2nd edition, vol. i., p. 119). M. Fordos, however, says that the colouring matter has no connexion either with the bile or urine. By a chemical process, which consists of soaking the linen stained with the pus in water containing a small quantity of solution of ammonia, a bluish-tinted or green-tinted liquid is obtained. Chloroform added to this, and the blue principle, with a yellowish foreign matter producing the green tint, is extracted from the water. By a further process the blue principle is obtained in prismatic crystals of a beautiful blue colour, This principle M. Fordos calls pyocyanine ("Year-book of Medicine and Surgery," Sydenham Society, 1861, p. 112 and 113).

It has generally, I believe, been observed in cachectic individuals, and examples have occasionally come under my observation in this Hospital.

The following case being a marked one, occurring in an European female in moderately good health, though somewhat anæmic from malarious influences, is worthy of record:—Mrs. W., English, aged 35, stout, of light complexion, and rather anæmic, was admitted on February 6, 1871, into the Medical College Hospital, suffering from two indolent ulcers on the right leg, just above the ankle. The ulcers were of several months' duration, and were ascribed to abrasions. Want of proper care on her part appears to have caused them to assume the indolent condition in which they were found. The surrounding parts were indurated from inflammatory products and textural irritation. Tinct. ferri sesquichlorid. was prescribed, and good diet and wine; water dressing was applied, and the limb placed at rest on a side-splint. After some days the liquor lyttæ was applied, with the view of removing the thickening of the tissues surrounding the ulcers, and of expediting absorption. The water dressing was also continued. Considerable improvement was effected; but again assuming the indolent condition, ol. terebinth. m.xx. was given thrice daily. The result was an increase in action, and it was observed that the pus which now covered the surface of the ulcers stained the dressings of a bluish-green colour. This continued in a most marked manner for several days. The turpentine was discontinued, as her stomach became irritable, and sulphate of zinc lotion was applied like water dressing. Granulation was now proceeding, and the surface contracting, but the progress was slow, and by the middle of March the ulcers were still uncicatrised. About this time a cold abscess formed on the outer aspect of the right knee, which resulted in a sore very like those on the leg.

During April her general health was considerably deranged, and, as suspicions of a constitutional taint were entertained, the iodide of potassium was administered. Her general health improved again; but the sores having relapsed into the indolent state, the liquor lyttæ was again applied, with water dressing after it had taken effect. On May 16 the discharge, which had for some time been quite natural, again assumed the bluish-green tinge, and it continued so for a week, when it disappeared, and the natural appearance of laudable pus was assumed. Cicatrisation was soon after this completed, and she was discharged in very fair health.

There was no reason to believe that the coloration was caused by any external application, for the greatest care was taken to prevent any deception.

I would incidentally allude to the benefit that may be derived from the internal administration of small doses—twenty to thirty drops—of ol. terebinth., given at intervals of four or six hours for some days, in the treatment of chronic ulcerations of an indolent character. I have for many years been in the habit of prescribing it in such cases, having first seen it used by the late Dr. Gilbert King, Inspector-General of Hospitals R.N., in the Royal Naval Hospital at Bermuda, so long ago as 1844. The effect on the capillary circulation is most marked, and I have frequently seen it succeed in promoting healthy granulation in most obstinate cases of chronic ulceration. To prevent strangury, it may be advantageously combined with nitric ether, and occasionally with tinct. opii. In this case the colouring appeared for the first time just after the turpentine was administered, but after a long interval of absence it returned, when that remedy had been discontinued. I do not attribute the coloration to the turpentine, for I have no recollection of ever observing it on any former occasion to follow the use of that drug.

Calcutta.

SURGERY IN INDIA.

By A. S. G. JAYAKAR, M.R.C.S.E., etc., etc.

Scrofulous Ulceration of the Palate—Faradisation—Recovery.

M., a scrofulous-looking young man, aged about 30, was admitted into Hutteesingh's Hospital, Ahmedabad, on June 24, 1870, with a perforating ulcer of the soft palate. The hole was situated a quarter of an inch from the uvula, more to the right side, and was (on his admission) about the size of a threepenny-piece. The disease commenced a few months ago, in inflammation; an abscess subsequently followed, which, having burst, gave rise to ulceration and, lastly, to perforation. He denied having ever had syphilis, but admitted having suffered from suppurating buboes about five years ago; never had any symptoms of constitutional syphilis. His voice was mostly nasal, as might be expected under the circumstances. The patient having had a distinct appearance of one suffering from scrofulous diathesis, he was ordered to take cod-liver oil and iron and, locally, astringent gargle.

On July 20, the inflammatory signs about the ulcer having greatly subsided, faradisation was ordered to be applied to the walls of the perforation with a wire every other day.

By September 5, the hole was reduced to one-fourth its original size, the walls showing a great tendency to contract. Glycerine of tannin was also occasionally applied, and it seemed to add to the efficacy of electricity.

He left the Hospital without permission on September 17, the hole being at the time reduced to a size much smaller than that of a pin's head, and his constitution greatly improved. A few more electric shocks, it was hoped, would have completed the cure.

Remarks.—Was this ulceration scrofulous or syphilitic? From the evidence before us, we cannot but presume that the disease was of a scrofulous nature. The history of the case, the absence of any other symptoms of constitutional syphilis, the constitutional diathesis of the patient, and, lastly, the beneficial effects of the treatment adopted, all strongly tend to the belief that the case was one of scrofula, although it must be admitted that scrofula is rarely known to attack the palate alone. The beneficial effect of faradisation is a point of great interest in the above case.

Local Anæsthesia of the Foot from Fracture of the Tibia—Hypodermic Injections of Strychnia—Recovery.

J. W., an anæmic-looking man, aged about 30, was admitted into Hutteesingh's Hospital, Ahmedabad, on February 22, 1871, with necrosis of the left great-toe. The toe was very much swollen and œdematous, and so was also the left foot. The nail of the toe was entirely destroyed, and it was turned downwards. Complained of anæsthesia all over the affected foot, both on its dorsal and plantar surfaces. In walking, which he could not very well do without the aid of a stick, he felt the foot as a dead heavy weight hanging. Patient traced the anæsthesia to a fracture of the left tibia, from which he suffered ten months before his admission, which was evidently simple. The necrosis of the toe was the result of an injury caused by a shoe a few days previous to admission. The treatment consisted in the application of carbolic poultices and the subsequent removal of the necrosed bone about the end of February, since when the toe gradually improved in appearance, and assumed its natural shape.

On March 16, $\frac{1}{30}$th of a grain of strychnia was injected under the skin, on the dorsal aspect of the foot, for the anæsthesia.

On the 17th the patient felt a great deal better, sensation having returned in the last three toes, and also in the skin of the dorsum, the plantar surface being still numb and heavy.

On March 20 the injection was repeated, and by the 22nd sensation was restored also in the plantar surface and the remaining toes, the foot becoming quite light.

From this date the patient went on rapidly improving, and he was discharged completely cured on April 18, being at the time able to walk and run about without the aid of a stick.

Remarks.—The cause of anæsthesia was evidently in this case

the fracture of the tibia; the broken ends of the bone pressing upon the tibial nerves had caused the action of the peripheral nerves to be suspended for the time being. Was that action restored by the hypodermic injections of strychnia? Undoubtedly it was; but in what physiological manner we cannot at present explain. Perhaps it did so by increasing the irritability of the nerves, as electricity might be supposed to do under similar circumstances. The rapid effects of the drug when administered hypodermically were more than evident in this case, and it deserves a fair trial in all cases of local paralysis or anæsthesia. I have at present a case of total amaurosis, dependent upon nervous exhaustion of the optic apparatus, under treatment, in which the hypodermic injections of strychnia have so far rendered the progress of the case very satisfactory; but, as the case is not yet completed, I must defer its publication to some future time.

Calcutta.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

OPENING OF ST. THOMAS'S HOSPITAL.

FIRST OPERATION.—LATERAL LITHOTOMY BY MR. CROFT.

On Saturday, the 9th, at two o'clock, Mr. Croft performed the first operation in the new operating-theatre of this Hospital.

Lateral lithotomy was performed on a young man of light complexion and pale aspect. Mr. Croft stated that his patient was 26 years of age, and that he began six months ago to complain of frequent micturition, and pain after urination. These symptoms had been more severe lately. On sounding with the lithotrite, the stone appeared to measure about an inch and three-eighths in diameter. By careful examination with a sound the concretion was felt to be rough and tuberculated. The same sounding led to the impression at first that there might be a second stone; but the probability that the calculus consisted of oxalate of lime was inconsistent with the presence of a second formation. Mr. Croft followed the plan of operation inangurated so successfully at old St. Thomas's Hospital by Cheselden, in the early part of last century. The stone proved to be large, and of the mulberry-like variety. It was slowly and most carefully extracted. The circumference measured five inches and one-eighth, the long diameter being one inch and seven-tenths, the short one an inch and four-tenths. Mr. Croft remarked that it was larger than he had expected, and supposed that in measuring with the lithotrite the stone had been caught somewhere below its equator. The man is going on very well, and there is a good prospect of his making a rapid recovery. Up to the present date everything has gone well with him.

UNIVERSITY COLLEGE HOSPITAL.

At the present time there are several cases in Mr. Marshall's wards (which are now under the charge of Mr. B. Hill) in which the antiseptic treatment of Mr. Lister is being carried out to the fullest extent, and with what advantage some of the cases leave not the slightest doubt.

There is a case of morbus coxæ which was admitted when the disease was in its third stage, and for which excision of the head of the femur was performed. The wound was treated on ordinary principles without the antiseptic element, and in a short time profuse suppuration occurred. After a short time pus formed in the knee-joint of the same limb, and this was opened under Lister's plan. In a few weeks the knee-joint had quite recovered, and now the patella is freely movable upon the front of the joint, whereas the child is still prostrated by the abundant discharge from the hip-joint.

Some cases of psoas abscess are also under treatment, which have been opened, and bear good testimony to the advantages of the carbolic dressings. One case is complicated with a lumbar abscess, and on admission very foul discharge was escaping from the opening in the back. A solution of chloride of zinc was syringed into the wound and passed out through the opening in the groin; afterwards the carbolic gauze was used. The opening in the groin has now almost ceased to discharge, while the matter from the lumbar opening is kept quite inoffensive, and the child has vastly gained in strength and flesh.

Mr. Berkeley Hill also showed us an interesting and somewhat rare case—the absence of the shaft of the fibula in a child between 3 and 4 years old. The two extremities were present, and each was about an inch in length, but no trace of the shaft of the bone existed. The ill-effects of this want were shown in the flattening and eversion of the foot, so that on standing and walking the whole weight was borne on the inner edge of the foot. Mr. Hill pointed out to those around him that there was no absence of the cuboid bone or other portions of the outer side of the foot in this, as had been noticed in a case of absence of the fibula, recorded by Dr. Humphrey in his work on the skeleton.

LONDON HOSPITAL.

STRANGULATED UMBILICAL HERNIA.

(Under the care of Mr. MAUNDER.)

[Reported by Dr. E. Flint, House-Surgeon.]

W. S., a stout male, aged 52, a very free liver, was admitted on May 30 with a swelling at the umbilicus the size of a large orange. He complained so little that the true nature of the case might easily have been overlooked. When seen by the Surgeon a few hours later, the usual symptoms of strangulated hernia were so slight, and the patient was so determined to make the best of his case, that some fifteen or twenty minutes were expended before the whole truth—and especially a history of irritability of stomach, beginning with vomiting—were obtained. (The man finding that ingesta induced vomiting, had taken nothing for some forty-eight hours.) In the absence of urgent symptoms, Mr. Maunder determined to try the effect of a soporific, with ice to the tumour, and afterwards of a purgative (the patient stated that a few weeks previously a similar state of things, so far as he could judge, had been relieved by purgatives); and in the event of being unable to reduce the tumour, or procuring an alvine evacuation, after the lapse of six hours to explore it. Half a grain of morphia was injected subcutaneously at once, and two hours later one drop of croton oil was administered; but no change for the better occurred, and, taxis under chloroform having failed, the tumour was laid open. It was found to contain some sero-sanguineous fluid and a knuckle of highly congested small intestine, partially adherent by recent lymph. The ring, which embraced the bowel very tightly, was nicked, and the latter having been reduced, the edges of the former were brought together with a wire suture, both to prevent a further protrusion of bowel and also gravitation of secretions. The patient recovered.

Besides other remarks upon the case, Mr. Maunder suggested that freedom from vomiting was due to abstinence; and the total absence of anxiety of countenance resulted from the absence of vomiting—circumstances to be borne in mind when called to a case of suspected strangulation. He also warned the class against the danger of administering opium in cases of suspected strangulated hernia, except under one condition. Opium often makes a patient so comfortable, allays pain and vomiting, that both he and his Medical attendant may be thrown off their guard. A full dose of opium or its equivalent may be administered provided the Surgeon have determined to operate if a satisfactory change shall not have taken place in the physical characters of the tumour after the lapse of a specified short time. Mr. Maunder has operated on three cases of umbilical hernia; one died, two recovered.

Under the new Vaccination Act, a penalty not exceeding 10s. can be imposed for preventing a public vaccinator from taking lymph from any child.

Statistics of the Medical Profession in the United States.—Dr. Toner, of Washington, publishes the results of the attempt made by the American Medical Association to ascertain the number of Medical Practitioners in the United States. It comprises all Physicians "who have paid the special internal revenue tax of ten dollars on their Profession for the year ending April, 1871. Arranged according to the system or theory practised, the numbers are as follow:—Regular Physicians, 39,070; homœopathic do., 2961; hydropathic do., 133; eclectic do., 2860; miscellaneous and unknown, 4774; total, 49,798. Estimating the population of the United States in round numbers at 39,000,000, we have one regular Physician to every 1000."—*Boston Med. and Surg. Journ.*, July 6.

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Medical Times and Gazette.

SATURDAY, SEPTEMBER 16, 1871.

MEDICAL EXAMINATION OF WOMEN.

"It is of the utmost moment," as we lately remarked, that Medical Practitioners "should be acquainted with the law on the subject of examinations, particularly of women." The question we then also asked was, "Has anyone the power to order an examination of a woman suspected of giving birth to a child, and of concealing the fact, the child being found dead?" The simple answer appears to be—No one, not even the Lord Chief Justice of England; although not only police inspectors (as in the instance we quoted of the Practitioner who was cast in damages of £200 for acting upon the simple authority of one), but ordinary constables, too often assume functions which no judge would dream of arrogating to himself.

The broad principle upon which the law of England is based is, that every accused is innocent until proved to be guilty; and further, that no amount of mere suspicion will justify a personal outrage—for however delicately an examination may be conducted, it amounts to an outrage in law if effected against the will of the individual, and without lawful authority.

Any evidence connecting an accused with an alleged crime must be obtained *dehors* where nothing but mere suspicion exists. If there is any real evidence, such a link may justify a further step; as, for instance, if there is good ground for believing, not merely for suspecting, that the proceeds of a robbery have been passed to a woman, her person may be searched by a female searcher. Even in this act a delicacy is observed by employing one of her own sex in the examination. But it must be borne in mind that the police authorities are clothed with peculiar powers, and are protected in the exercise of them if they have acted *bonâ fide*, and have used due discretion. They, however, have no power to delegate them, not even to a Medical man. The onus of proving a crime rests with the prosecution; and although, in one sense, the end may justify the means—*i.e.*, a conviction would of itself exonerate all engaged in the prosecution from civil consequences—yet an acquittal might, as in the case mentioned above, result in most disastrous consequences to those who, at least, were not surrounded with that halo of protection enjoyed by the police authorities. In point of fact, the law is the same for both sexes; and in the recent case of Boulton and Park the Lord Chief Justice strongly condemned the examination by a Medical man, although the divisional Surgeon to the force, of the persons of the defendants, upon the bare suspicion that they had been guilty of a felony; and his Lordship added, that even an order of a magistrate would have made no difference; the act was an act of aggression—of trespass—and unjustifiable.

"Taylor's Medical Jurisprudence," it should be observed, is no authority for any legal proposition. So far as Medical science can elucidate the principles of law, that work is most valuable; but as far as abstract principles of law are concerned, it is no acknowledged exponent, and especially when no legal authority is quoted in support of any general statement.

The only safeguard of the Medical Practitioner, when directed to examine the person of an accused, whether male or female, is to take a written assent from the accused to the course proposed, or else to decline the responsibility involved.

If this be said to be frustrating justice, that is no reason why the Medical man should be made the scapegoat of justice. Let the police act upon their own responsibility, if they will, but let not Medical men become their dupes. But of all functionaries, the coroner is perhaps the least justified in ordering a Medical examination of a woman suspected of having given birth to a child, and of concealing the fact—the child being found dead—inasmuch as the coroner's inquiry relates solely to the cause of death, and has nothing whatever to do with the crime of concealment of birth. The mere fact of a woman having been recently delivered of a child since found dead, and having concealed the birth of it, is no proof that she caused its death; and the fact of concealment is expressly forbidden by statute to be received as such proof. Under the 21st Jas. I., c. 27, the bare concealment was evidence of the murder, and the onus of proving the contrary lay upon the party accused, and accordingly this species of offence was formerly within the province of the coroner. But the duty of coroners was in this respect abrogated by 43 Geo. III., c. 58, secs. 4 and 5, and such a course of legislation has been confirmed by all subsequent Acts down to the present time. All that the examination of the woman's person could prove would be a recent delivery, and this of itself would have no necessary connexion with the cause of death, upon which alone is the coroner's jurisdiction founded.

Although an investigation before a magistrate is more comprehensive than that before a coroner, and may include an inquiry into the crime of concealment of birth as well as that of murder, yet the magistrate possesses no power to order an examination of a woman's person. The fact of her recent delivery must be proved from circumstantial evidence, unless she voluntarily submits to a Medical examination, or admits the fact, and thereby furnishes direct proof.

OVER-EDUCATION OR UNDER-EDUCATION—WHICH?

A WORD TO TEACHERS AND STUDENTS.

There is a well-known saying to this effect—"A little knowledge is a dangerous thing." That it is so arises chiefly from the fact that many people are prone to give themselves airs, and to presume on their knowledge, all-insufficient though it be. We fear there is an evil tendency to this in modern Medical education, for it would seem that scraps of any number of subjects are taught, but no one thoroughly. We are in danger of forgetting that we are not called upon to educate skilled chemists, expert experimental inquirers—men learned in all that does not relate immediately to their Professional duties. Let us but reflect for a moment. The period of Hospital study practically extends over three years—or, more exactly, twenty-four months. In this space of time the student is expected to make himself master of all that relates to the structure and functions of the human body in health, the changes induced by disease, and the modes of recognising and dealing with these morbid conditions. This is his preparation for the real work of life. And let it be remembered that it is human life he has to deal with, human suffering he is to be called upon to relieve—this is his work, and no other. He is not likely to be called on at a moment's notice to give the exact composition and derivation of methyl-ethyl-amylo-

phenyl-ammonium, but he may be called on to set a broken leg or a broken arm. He may not be capable of exhibiting to an admiring audience the effects of irritation on the nerve-supply of the submaxillary gland, but he may have to perform craniotomy. Now, the former kinds of knowledge are very admirable in their way, and it is good that somebody should be master of them, but do not let us torment the poor hard-working country Practitioner in his embryo days with what will be of not the slightest use to him.

Let us view the matter in another light. The great majority of men study Medicine with the view of earning their bread by its practice. Education to these men means the expenditure of a certain amount of capital, the consumption of a certain amount of time, and so much actual work—all this with a view to subsequent remuneration, perhaps of profit. Most men look forward to being able to lead the life of a gentleman, to bringing up a family respectably, and to making some provision for old age; and yet we question if the average Medical income all over England amounts to £400 a year—certainly in many instances it is much less. Wise men look to laying out their capital to the best advantage. It is surely not to that of the student to devote his time and money to what will never bring him in a farthing, whilst attention to these side-subjects, as well as to those which more strictly concern his future well-being, implies an additional expenditure of time, money, and labour, until—well, *le jeu ne vaut pas la chandelle*—the expenditure of capital is not recouped.

As is well known, we are very far from being advocates for imperfect education—quite the reverse—we desire to see the Medical education as perfect as possible; but we would have during the whole curriculum an eye kept on practical results. Let every department of science studied by the Medical student be taught, not as a pure, but as an applied science. The symmetry of the human frame is a fine thing, but it is more important to know where to pick up an artery, or how to counteract the dragging of a muscle; and so it is all very well to know how to separate a poison from the contents of a stomach, but much more to know how to treat aright a case of poisoning by antidote or otherwise. It is this trifling with high science which annoys and troubles us. Men are led away from that which is to fit them for being sound and wise Practitioners to that which, however admirable in itself, is not to be their calling in life.

But yet again we have seen what amount of time is usually consumed by the student at a school of Medicine; if his time is occupied one way it cannot be so in another—so that he is really prevented from acquiring that knowledge which will be so essential to him in after-life. We do not think that a man should be restricted to the wards and to the post-mortem room for his education; for although he may see many of the graver forms of disease there, he will not see the majority of those encountered in every-day practice. Nay, more, he is hardly likely to acquire there a complete knowledge of the principles he is to act upon when he meets with cases he has not before seen. There are certain Hospitals in London where the system of ward-work is carried out to the exclusion of almost everything else; but the result is not entirely satisfactory. The ex-student at such a Hospital will promptly tell you what to do in such and such a case; but if you ask his reasons, he can only tell you—"Oh! we always treat it thus at ———." Such men, as a rule, are greatly given to routine practice; they recognise a disease, and they promptly order what they have been accustomed to hear prescribed in such cases; but then, unfortunately, the last individual they think of under such circumstances is the patient—disease is to them the entity, not the individual.

We wish greatly to see something between the two extremes—between too much science and too little—and it seems to us that the best way of attaining this is to ask for the student, before he presents himself at the Hospital, as much pure science as he will require, and thereafter to deal with scientific subjects merely as they apply to Medicine. Teachers are to blame in no small measure for the present condition of affairs. Each man is too apt to extol his office, to tell the student it is the most important of all. It does not, however, follow that he should neglect its duties, or make light of his post. Let him strive to relegate it to its proper place in a sound Medical education—subordinated duly to the great practical subjects—and the result will be a more perfect scheme of education than any to which we have yet attained. It is not by multiplying the "ologies" taught we shall succeed in this, neither by stripping them clean off our system, but by keeping a single eye on the aim and object of all Medical education—the making of good Practitioners. This should be our aim, and to it all our efforts should be directed.

THE WEEK.

TOPICS OF THE DAY.

It is gratifying to be informed that her Majesty's health and strength are improving, slowly as it may be. Her maladies are believed to have had their origin in fatigue and exhaustion, combined with extreme solicitude at the state and progress of political affairs. A sore throat, with considerable debility and malaise, has now been succeeded by an axillary abscess, which is probably a sign of the climax of the illness, and of incipient restoration to health. It is impossible to exaggerate the importance of the Queen's health and strength.

The deaths in London from diarrhœa, which in the week ending Saturday, September 2, declined to 353, last week fell to 293. Of these, 265 were of infants under 2 years of age, and 18 of persons aged 60 and upwards. The deaths referred to cholera and choleraic diarrhœa were 24 last week, 20 in the previous week. Of the 24 last week, 19 were cases of infants, 5 of adults. Of the adult cases, 2 of choleraic diarrhœa proved fatal in twenty-four hours, and one, which occurred in Berwick-street, Westminster, and was certified as cholera, in thirty hours.

Whilst London and Paris continue free from cholera, the disease is said not to have sensibly abated in parts of Germany and Russia. A Berlin telegram, dated September 11, quoting the St. Petersburg *Moniteur*, states that at Kieff, in Russia, there are 150 deaths from it daily. A telegram, dated Königsberg, September 7, informs us, however, that it is diminishing in the Baltic provinces. The Berlin correspondent of the *Times* had represented that cholera was at Coblentz. This, however, has been since denied. It is said, however, that dysentery, bequeathed by the Franco-German war, exists in Coblentz and the neighbourhood. Cardiff has had a narrow escape from the introduction of cholera. An American ship from Hamburg arrived in the Penwith Roads, off Cardiff, on the 11th inst. She left Hamburg on the 30th ult., and had lost four men from cholera. She was visited by the Custom-House authorities, and by Dr. Paine, the Medical Inspector of the port, and was placed immediately in quarantine. Cholera is still rife in Persia. In Tabreez the deaths had been 240 daily, but a letter dated August 11 stated that they had then fallen to 125.

On Wednesday Mr. Stansfeld received a deputation from the City Commissioners of Sewers on the subject of the inspection of shipping between London and Gravesend, and on the difficulties arising from the present condition of our sanitary laws in obtaining conjoint action of the several nuisance authorities having jurisdiction on the river. The deputation urged on Mr. Stansfeld that the Government ought to take this matter into their own hands, and not leave it to the local Board of Health. The Sanitary Acts, it seems, give the City authorities no power to impose rates to meet the expense of inspection beyond their jurisdiction. Mr. Stansfeld promised to give his attention to these points. We should have thought,

considering the nearness of cholera, that it was the duty of Mr. Stansfeld and his colleagues to have given their attention to them a month ago.

The conclusion of the inquiry into the causes of the catastrophe at Stowmarket is equivalent to a charge of manslaughter, if not of murder, against some person or persons unknown. The evidence proved that after the explosion impure gun-cotton was found in the Stowmarket factory; sulphuric acid was present in the gun-cotton—an impurity which would certainly lead to decomposition and explosion. The evidence proved pretty conclusively that the explosion depended upon the impurity of the gun-cotton, and the question then arose whether the impurity were the result of imperfect manufacture or of wilful adulteration. The jury, relying upon the tests to which the gun-cotton when manufactured is subjected by Government, and upon the scientific evidence of Professor Abel and others, which went to prove that pure gun-cotton is "a stable" explosive, came to the conclusion that the gun-cotton had been tampered with by the addition of sulphuric acid "by some person or persons unknown," after it had passed the Government tests. The object of the adulteration is supposed to have been the discredit of the Stowmarket factory. If this theory be the correct one, the tragedy is another illustration of the danger to society accruing from the possession by criminals of the secrets of modern science. The jury added to their verdict that, from the evidence adduced, there appears to be no danger in the manufacture of gun-cotton in the wet process, but they are of opinion that the drying and storing of gun-cotton should not be allowed near a town. They also consider that gun-cotton works should be subject to constant Government inspection.

The condition of the water in the Parks is one of the "Topics of the Day." The Serpentine, with its brand new gravel bottom, has degenerated into a stagnant and odoriferous pond half filled with slimy vegetable growths, and the lakes in Victoria-park and Battersea-park rival the waters of the Thames in their deposit of thick, black, offensive mud. "M.D.," in a letter to the *Times* on the state of the Serpentine, suggests that the lake should be supplied by a six-inch pipe from the natural reservoirs in the chalk hills of Hertfordshire, or from an artesian well sunk in Kensington-gardens.

The accused person in the Brighton poisoning case—Miss Christiana Edmunds—has been committed to take her trial on a charge of murdering by poison a little boy named Barker, and of attempting to poison three other persons. The case is a very remarkable one, and presents questions of great Medico-legal interest; but we reserve any commentary until after the trial.

Messrs. William Greaves, Albert E. Kynaston, and John Ackman, the three gentlemen who, having been on the Resident Medical Staff of the Hampstead Small-pox Hospital, have brought serious charges against its management, have written a letter to the *Times* in answer to one written by Mr. Wyatt, which was read before the Metropolitan Asylum District Board, wherein that gentleman brings counter-charges of a somewhat personal nature—such as indulgence in beer, irregularity of hours, and the possession of fighting dogs—charges which, if proved, as the three gentlemen urge, are quite irrelevant to the point at issue. The three Medical officers appeal to the records of the Committee to show that their conduct met with the approval of that body, and they ask for an investigation, conducted by a neutral party, "assisted by some eminent Medical authority, whose character for skill and impartiality may give weight to the decision with the public."

The lamented death of Dr. Hyde Salter has created a vacancy in the Medical staff of Charing-cross Hospital. Dr. Silver, the Senior Assistant-Physician, becomes full Physician, and a vacancy for an Assistant-Physician will be officially declared at an early date.

THE AUTUMN MANŒUVRES.

Notwithstanding the severity of the weather and the very considerable exposure to which the troops employed in the various camps have been subjected, and the fatigue which they have undergone, the general health of the men has continued good. Cases of simple diarrhœa, generally of such a mild character as not to require actual admission into Hospital, have, as usual in autumn, been rather prevalent, both among the reserve forces in Aldershot and those actively engaged in the front. Casualties from accidental injuries have neither been numerous nor severe. Great attention having been directed to the early and proper treatment of blisters of the feet, and express instructions issued on the subject by Inspector-General Lawson, footsoreness—that great source of inefficiency among young soldiers—has been infrequent. The plan adopted is the one long known to sportsmen, of passing a worsted thread through the blistered part, cutting off the ends, and leaving the thread to act as a drainage-tube, and soaping foot and sock before putting on the boot. On suitable occasions, a certain number of men per company are caused to fall out and lie on the ground in imitation of wounded, so as to give the bearers of the Army Hospital Corps an opportunity of displaying their efficiency and skill. We believe they have not failed in any respect in the discharge of this and their other duties.

All serious cases of sickness are sent from the field-Hospitals for treatment in the stationary Hospitals. The sick of all arms of the service, including the Household Troops, the Militia, and Volunteers, are sent in the first instance to the field-Hospitals, and those who are likely to require prolonged treatment are sent to Aldershot.

Six sets of a new pattern of field companion, containing medicines, etc., on the valise principle, have been issued to certain regiments for trial, and a report will be sent in by the principal Medical officer as to their suitability for field use. Two hundred and fifty waterproof sheets, constructed with eyelet-holes, so as to be capable of conversion into a *tentes d'abris*, by joining two together, have also been issued for trial.

THAMES SHIPPING INSPECTION COMMITTEE.

A meeting of the above Committee, called together by Dr. Buchanan, in view of a cholera epidemic, for the more efficient inspection of the shipping of the Thames, was held at Guildhall on September 11, at which representatives were present from most of the Boards or Vestries of districts abutting on the Thames. The chair was taken by G. S. Pedler, Esq., C.C. The Hon. Secretary (Dr. C. Meymott Tidy) stated that he had communicated the resolution of the Committee to the Admiralty, and that they were willing to lend the *Rhin* to the Committee as a Hospital ship for cholera patients in the event of its being required for that purpose. It would be possible to bring her down to Gravesend in about twelve hours. It was agreed to accept the *Rhin*, and the Committee empowered the Mayor of Gravesend to telegraph for the vessel to be sent immediately a case of cholera makes its appearance. The Admiralty requiring that the Committee should insure the *Rhin* against fire in the sum of £2500, a resolution was passed agreeing to these terms. Dr. Tidy reported that he had received a letter from the Secretary of the Metropolitan Asylum District Board to say that patients suffering from cholera for whom immediate provision must be made may be received on board the Hospital ship *Dreadnought*. A letter was read from the Vestry Clerk of Rotherhithe to say that the Vestry declined to name a representative to act on the Committee, inasmuch as they were of opinion that any expense incurred in the more thorough inspection of shipping on the river should be borne by the country at large and not by the riverside authorities only. It was reported to the Committee that as yet no case of cholera had made its appearance on the Thames. A discussion took

place respecting the appointment of a special Medical officer to carry out the inspection of shipping along the whole river and in the docks. It was agreed that such an appointment was most advisable, and that it be referred to the sub-Committee to further such an appointment and to report to the Committee at their next meeting. It has been determined, we believe, that Mr. Harry Leach, Senior Medical Officer of the Seaman's Hospital, Greenwich, should be requested to act as Medical adviser to the Committee. The meeting of the sub-Committee was fixed for next Monday.

THE INCREASE OF FEES AT THE MEDICAL SCHOOLS.

THE authorities of St. Bartholomew's wish us to state that the increase of fees at that School and Hospital is only in proportion to the increase both at Guy's and St. Thomas's—namely, 10 per cent.—and that for students who pass four years at the Hospital the fees at St. Bartholomew's only exceed the fees at Guy's and St. Thomas's by five shillings. If the payment be made in one sum the fees at St. Bartholomew's are exactly the same as at Guy's, St. Thomas's, and St. George's—namely, £105—and are only four or five pounds more than at King's and University Colleges. Payment by instalments at St. Bartholomew's entitles a student to a perpetual ticket. The fees at Guy's are £105 in one sum, or £110 in four yearly instalments of £40 the first year, £40 the second year, £20 the third, and £10 the fourth year. The increase of the fees is, of course, the result of the extra practical classes now required by the Examining Boards.

"PRELIMINARY MEDICAL EDUCATION AT PROVINCIAL HOSPITALS."

THIS is the title of a pamphlet by Mr. Swain, F.R.C.S., Surgeon to the Royal Albert Hospital, Devonport, and it deals with a question which we have long considered worthy of considerable attention. The question is fairly put by Mr. Swain himself: "Do Medical Students, at the present day, obtain that practical knowledge of their Profession which renders them fit and proper persons to be entrusted with the limbs and lives of her Majesty's subjects?" An answer is to be found in this pamphlet, and we are bound to confess that we consider it to be a fair and true one. In substance it amounts to this—that whilst our Students are crammed to repletion with all sorts of theoretical knowledge, the practical part of their Profession is grievously neglected. To supply this defect, Mr. Swain points out that "a great teaching power lies dormant in our provincial Hospitals," and he proceeds to point out, evidently from practical experience, how that power may be used to the advantage of youths about to embrace the Profession of Medicine. He proposes that after a youth has passed his Preliminary Examination, he should spend the first year of Professional study as the pupil of a Surgeon to a provincial Hospital. How that year is to be spent may be learned by reference to Mr. Swain's pamphlet. All we can say is, that we cordially endorse the plan of study which has been there laid down, and we can have no doubt that pupils so trained must be far better prepared to accept advanced theoretical teaching than are those who, as Mr. Swain puts it, "rush from the school to the dissecting-room." Looking, on the one hand, to the acknowledged lack of *practical* teaching, and to the great straits the schools are put to, to provide it, and, on the other hand, to the amount of practical work which is to be done in our provincial Hospitals, under the supervision of men, many of whom stand as ornaments to our Profession, we cannot but enforce the recommendation of the writer of this pamphlet, that students should spend the first year of their Professional study at a provincial Hospital. We commend this pamphlet to the consideration of all provincial Hospital Surgeons, and we trust that it may be the means of inciting them to exertions to obtain that share of teaching students to which we consider them justly entitled.

UNHEALTHY DWELLINGS IN GLASGOW.

EVERYONE is acquainted with the labours of Dr. Gairdner in attempting to remove one of the prominent causes of disease and death in Glasgow. Aided by the Town Council, much has been effected; but much still remains to be done. The changes which are being carried out involve great expense, but there seems no reason to doubt that the funds will be raised by the citizens of Glasgow. At a late conference held in that city on sanitary reform, etc., Dr. Gairdner read an important paper upon the construction of the dwelling-houses in the city of Glasgow. By the last Census, he said, the population of Glasgow as to acreage was more than double that of London and Edinburgh, three times that of Newcastle, and nearly eight times that of Leeds and Sheffield. In fact, there was only one place in the British Empire that exceeded Glasgow in density of population, and that was Liverpool, whose bad sanitary reputation was well known. He was not sure how far the operations of the City Improvements Trustees had affected the statement he was now to make. He knew a short time since it was true within the last few years that in some parts of Glasgow there were nearly 1000 persons living upon an acre of land. There was an entire absence of all those open spaces that were absolutely necessary for the proper accommodation of family life. Poor tenements in Scotland could only be described as warrens, where a large number of the passages were almost as dark as if they were underground; and where there was no individual superintendence to protect the rights and interests of the inhabitants. A high rate of mortality was the necessary consequence. Dr. Gairdner then estimated that, with half-a-million of inhabitants, Glasgow contained about 100,000 households. He did not mean families, because the household often included, besides the family, a great number of lodgers. He then estimated that 25,000 of the households lived in houses of upwards of £10 of rent, 25,000 in houses between £7 and £10, 25,000 in houses even less than £7, and 25,000 in houses below £4 10s. The whole of the lowest 25,000 were, in fact, living below the line even of decency. Then the second 25,000 must also be to a great extent living in houses below the sanitary scale of mere decency, because it was barely possible for a family of five, six, seven, or eight children to be brought up in a single apartment, especially in an apartment forming an individual part of one of those large warrens. There was, therefore, something like one-third of the population of Glasgow living in single apartments. These were the facts, as tested by the Census. The birth-rate in it was 40 or 42, while in London it was about 33 or 34, and in Liverpool about 38. Dr. Gairdner then said that until the style of residences was remedied, they could not reduce the death-rate of Glasgow to any appreciable extent. The above facts show, "trumpet-tongued," the amount and gravity of the evil to be overcome, and should stimulate all interested in the matter to fresh and renewed exertions to mitigate it.

CORONERS IN LANCASHIRE.

CONSIDERABLE dissatisfaction has long prevailed in Lancashire with respect to the performance of the coroners' duties and the salaries which these officers receive. The Financial Committee of the Lancashire Court of Quarter-Sessions have issued a report on the subject, which contains the following significant passage:—"An opinion is gaining ground that the existence of a well-organised and vigilant police and active magistrates, and the further appointment of a public prosecutor, ought to render the office of coroner unnecessary, and that a great pecuniary saving, without disadvantage to the community, would be effected by its abolition." It appears that the salaries now paid to county coroners in Lancashire amount annually to £3325. Looking at the very unsatisfactory manner in which inquests, as a general rule, are held, the opinion of the magistrates in Lancashire will doubtless be endorsed by the country at large.

FATAL SALIVATION FROM BICHLORIDE OF MERCURY.

One of those unfortunate cases which occasionally occur even in the best-regulated practices, has just taken place in the neighbourhood of Chippenham. It appears from evidence adduced at the inquest that the following are the facts of the case referred to:—The daughter of Mr. R. N. Fowler, M.P., of Elm Grove, Chippenham, by name Harriet Maria, and aged 9 years, was taken, on Monday, August 21, to Dr. Meeres, of Melksham, to have her head examined. He said she had ringworm, and prescribed some simple lotion and gave her some medicine. On the following Wednesday Dr. Meeres called, and ordered the head to be shaved, which was done the following day; the lotion and medicine were continued. On Monday morning, the 28th, Dr. Meeres again called, and directed the child's head to be washed, and that she should be brought to his house in the afternoon, when he would apply a lotion which would eradicate the disease at once. The child was accordingly taken, and the lotion was applied to the head by means of a small brush. The application gave the child no pain at the time, and she was taken home in an open dogcart. During the journey the child suffered great pain, which continued after she reached home. Cold water and cold cream were applied until Dr. Meeres saw her again the same evening. So far this is the statement of the nurse. The following letter from Dr. Meeres gives a full account of the case. The straightforward and candid narration will commend itself to the reader:—

"An account has been published in the London and provincial papers of an inquest held on the late Miss Harriet Fowler, whose 'death,' the verdict of the coroner's jury states, 'was caused by poison from the application of a very strong preparation of bichloride of mercury made to the head and neck by Dr. Meeres;' and the verdict adds 'that Dr. Meeres is very greatly to be blamed for having made the application.' I should be glad to have the opportunity, through your columns, of laying the facts of this very melancholy case briefly before the Profession.

"The child was between 9 and 10 years of age, of a clear complexion, and stoutly built. On August 21 she was brought to me with ringworm of the head (*Tinea tonsurans*). She had also a few spots of *Tinea circinata* about the face. For the latter no local treatment was used. I prescribed steel wine and a lotion of carbolic acid, glycerine and water, and directed that the head should be shaved. This comprises the whole of the treatment for the first week.

"August 28.—The disease seemed to me to be spreading, and I proposed, as a speedy cure, the application of bichloride of mercury, as recommended by Dr. Tilbury Fox. And here let me add that I had on several previous occasions had recourse to the mercurial caustic with success. With a small camel's-hair brush I applied the solution to each of the patches. In making the application a line of solution accidentally ran in the sulcus behind the left ear. No pain whatever was felt while the child remained in my room.

"Monday Evening.—There had been considerable pain; the painted surfaces were blistered, including the line behind the ear, and the subjacent scalp was tumid. There was sharp diarrhœa and sickness. The vomited matter consisted of pieces of greengage or apricot. Water dressing applied to the head, and no medicine given.

"Tuesday Morning.—The child had passed a restless night, and seemed very prostrate. The bowels had been relaxed, and everything except cold water induced sickness.

"Tuesday Evening.—Mr. Gore saw the patient with me. There were patches of blister on the head. The face had a puffy look, and the eyelids were œdematous. The gums were found to be swollen, and the saliva was running from the mouth. We both saw only too plainly that salivation was coming on.

"Wednesday Morning.—The patient took very little indeed in the way of nourishment, and was very prostrate. The parotid and submaxillary glands were considerably swollen, and saliva ran from the mouth. There was still tendency to sickness and diarrhœa. Pain was complained of in opening the mouth. The blisters had subsided.

"Wednesday Evening.—Further enlargement of the parotid and submaxillary glands. To allay restlessness and procure sleep, ten minims of liq. morphiæ acet. were given, and directions left that the dose should be repeated in three or four hours if sleep was not induced.

"Thursday Morning.—The second dose of morphia had been given, and the patient had passed a quiet night. No further swelling of the face, and no diarrhœa or sickness. The patient was rather drowsy, as if still under the influence of the morphia. I requested that some coffee should be given at once, and the nourishment pressed as much as possible through the day.

"Thursday Evening.—Patient quiet and disposed to be drowsy; had taken some essence of meat, brandy-and-water, and milk. The swelling about the jaws seemed slightly receding. On the whole, I considered the patient better.

"Friday Morning.—The patient got out of bed unassisted and went to the night-stool; she remained out some minutes. In getting into her bed she fainted, and, although assistance was immediately at hand, she did not rally.

"No mercurial medicine was given by me or anyone else throughout the treatment. Throughout the illness there had been no delirium or convulsive movement, and not the least tendency to drowsiness till after the morphia had been given, and then not more drowsiness than was fairly attributable to the drug. It seems to be indisputable that salivation was induced by one single application of the alcoholic solution of mercury, and that the patient was, in fact, poisoned by the mineral.

"This very sad case, I need hardly say, has caused me the deepest sorrow—a sorrow that will never be altogether effaced. The practice of the Profession is always attended with anxiety and uncertainty, but a calamity like the present is enough to crush a man in his work."

The lotion applied was from a formula of Dr. Tilbury Fox—eighty grains of bichloride of mercury to an ounce of alcohol. Taking all the facts of the case into consideration, we cannot think any blame is attributable to Dr. Meeres. The application was one which has been used, we believe, by Dr. Tilbury Fox in very many instances; and this, as far as we know, is the first in which it has produced any untoward symptoms. The case is altogether an exceptional one; and whilst all must regret its melancholy termination, it would be as unjust as ungenerous to attribute that termination to any want of care or skill on the part of Dr. Meeres. At the same time, every right-minded man must sympathise with him and with the parents of the child under the painful circumstances in which they are placed.

A MEDICAL CLERGYMAN.

By the last mail from the West Indies, we find that one of our brethren has been admitted by the Lord Bishop of Jamaica to holy orders. The gentleman in question is Dr. Croskerry, a Dublin Surgeon of 1856. He was formerly in the Royal Navy, but, having resigned his commission, settled as a Medical Practitioner in Jamaica. He is one of the Government Medical Officers in that island, and has been a frequent contributor to the various Medical journals. He was editor of the *West Indian Quarterly Magazine*. It is understood that Dr. Croskerry has no intention whatever of abandoning his Profession. He will be simply a Medical Practitioner in holy orders, doing what good he can for the benefit of the Church, as far as his public and private duties will admit, but taking no cure in it, and no emolument whatever from it.

SMALL-POX IN HACKNEY.

In the month of December last the Guardians of the Hackney Union devoted a house to the treatment of small-pox patients, and subsequently two other houses were occupied for the same purpose. The whole of the patients in these three houses were placed under the care of Dr. G. C. Millar, the Medical officer of the workhouse, with more satisfactory results than could have been expected from the use of private houses as small-pox Hospitals. There have been 200 cases under treatment, and at no time less than 35. The period of detention has been from six to eight weeks, and the death-rate about 11 per cent. For his extra services the guardians have voted Dr. Millar a sum of 100 guineas, and the payment has been assented to by the Local Government Board.

SMALL-POX AT MALTA.

We are informed that the introduction of this disease into Malta has been clearly traced to the arrival at the island, on September 26, 1870, of an English vessel named the *Fiona*, from Rouen, where the disease was prevalent, having on board an unvaccinated sailor suffering from the disease, who was sent to the Civil Hospital at Malta, and died there on October 1. On October 6 an Italian vessel imported another unvaccinated man suffering from small-pox, who died shortly after being landed and sent to the Civil Hospital. The seed thus imported soon bore fruit. A Greek sailor, a patient in the Civil Hospital, convalescent from diphtheria, on whom no marks of vaccination were observed, was soon afterwards attacked; then a nurse in the Hospital, and several other persons connected with the establishment, became affected. For so far the disease was limited, but within a short period a villager, who had been a patient in the Hospital for some other disease, and had been discharged to his home, was attacked, and the cases among the overcrowded, filthy, badly nourished (and for the most part unvaccinated) native population of the island soon became very numerous, and were attended by great mortality. The insanitary condition of Maltese villages, and the habits of the poorer classes, render them an easy prey to epidemics; and the annual religious celebrations, which commenced about the same time as the small-pox was becoming general, exerted a powerful influence in extending the disease among all classes, in consequence of the constant thronging into the various churches.

The troops, in consequence of their better sanitary condition, and attention to vaccination, enjoyed a comparative immunity; but even among them eighty-two cases and thirteen deaths occurred, those regiments suffering most which were quartered nearest to the civil population, and came most frequently into contact with them in drinking-shops and other places of low character. In one regiment, the 1st Battalion of the 24th, which occupied a position capable of complete isolation, no case of small-pox occurred. The fatal cases among the troops were in many instances of the hæmorrhagic form, in men of dissipated and irregular habits. It is remarkable that of the soldiers who died, one presented distinct and another doubtful marks of previous small-pox; ten presented good, and three doubtful marks of vaccination. Of the eighty-two attacked by the disease, seventy-four presented good marks of vaccination, five none, and three doubtful. Of those who recovered, none bore marks of previous small-pox.

THE CHOLERA AT SECUNDERABAD.

The outbreak of cholera among the 18th Hussars at Secunderabad, in May last, was remarkable for the suddenness with which it appeared and disappeared, for the intensity of its nature while it lasted, and for the almost complete limitation of its attack to one community. It was only on the evening of the 24th May, that information was received of a few cases of cholera having occurred among natives in the cantonments, and on the Masulipatam-road. Between 3 and 4 a.m., on the morning of the 25th, three cases occurred among the 18th Hussars; these were rapidly followed by others, and within twenty-four hours thirty-four men and one child had been admitted into Hospital, and within twenty-six hours nine men had died. The utmost promptitude was displayed in removing the regiment from cantonments, and early on the morning of the 26th May the whole regiment was on the march to Nagarnm, about nine miles to the north-east of Secunderabad. But the disease still clung to it; twenty-four men, three women, and four children, were attacked, and seven men, one woman, and one child died. The movement was then continued to Cherala, three miles further in a north-easterly direction, but without getting rid of the foe. Thirteen men, two women, and three children were attacked, with fatal results to six men, one woman, and one child. A further movement of about four or five miles was then made to Keesara, and the disease abated; only one fresh case occurred, the patient being a child who died; and one man attacked at Cheerala also died. On the 3rd of June, nine days from the occurrence of the first cases, the last case, and on the 4th of June the last death, occurred. On the 18th of June, the regiment being then encamped at Yadagarpully, was declared quite free from cholera. On the 20th it marched to Moul Ali, an extensive plateau, five miles north-east of Secunderabad, and on 23rd June returned to barracks in Secunderabad. During the absence of the regiment the barracks had been thoroughly cleansed and limewashed, and all remediable sanitary defects rectified. During the month spent under canvas, there was a remarkable immunity from other diseases. Only one death from sunstroke occurred in camp; fever and dysentery were almost unknown; and the general health and appearance of the men were strikingly improved. The total number of cases of cholera was eighty-five, of which thirty-five occurred in Secunderabad, and fifty in the various camps. The deaths at Secunderabad were twenty, and in the camps nineteen. The proportion of deaths to cases was 45·88 per cent.

A thorough investigation and analysis of the circumstances of this limited but very severe outbreak of cholera, especially with respect to the question of the water used by the individuals who suffered from the disease, as well as by those who escaped, would be likely to yield valuable results. The fact of the virulence of the disease expending itself within three or four days, and entirely disappearing in ten days, appears to indicate the possibility of its victims having all, within a certain limited period, been subjected to the same morbific influences, the further extension of which was prevented by the prompt removal of the regiment from cantonments and the adoption of vigorous sanitary measures. Mr. C. Macnamara's theory of the communicability of cholera by water containing cholera excreta, only during the vibrionic stage of decomposition—which, according to Mr. Macnamara, in a dilute solution lasts about three days—might meet with an affirmative illustration in such an investigation as we have suggested. In many points the resemblance between the remarkable instance of an outbreak of cholera among a limited community who had used water contaminated by cholera excreta—mentioned by Mr. Macnamara in his work on Cholera, p. 196, and frequently alluded to in other portions of the same work—and the recent epidemic among the 18th Hussars is very striking; but the completeness of the analogy could only be established or disproved by a searching investigation on the spot, and almost at the time of the occurrence of the outbreak.

SANITARY CONDITION OF DUBLIN.

Mr. Benson Baker's recent visit to Ireland, to investigate the curative and hygienic system in operation, has given rise to a lengthened and instructive correspondence between that gentleman and Drs. Grimshaw and Mapother as to the sanitary condition of Dublin. The correspondence appears in *Saunders's News-Letter*. Of course there are discrepancies of opinion and differences of statements as to "matters of fact"; but all the writers agree that the sanitary condition of the City of Dublin is not so good as it ought to be, and as it might be made. It is asserted by Mr. Baker that there has been much negligence on the part of the Dublin Corporation, as represented in the responsible acts of their Committee of Health. The main result of the correspondence, however, which is too bulky to give even an abstract of, is the evidence it affords of the formidable obstacles which beset any attempts to introduce improvements of a sanitary kind. The people of Dublin experience the same difficulties as we did in this country from the vast number of local jurisdictions which before the passing of the "Local Board of Health Act" existed. If the provisions of that Act were extended to Ireland, the results could not fail of being satisfactory.

EXHIBITION OF SANITARY APPLIANCES.

IMITATING the example of the Obstetrical Society, and that of Sir William Fergusson at the College of Surgeons, in collecting instruments and appliances for use in Obstetrics and Surgery, the Social Science Association have determined to have an exhibition of sanitary appliances at their annual congress, which is to be held at Leeds from October 4 to October 11. The exhibition is intended to bring under the notice of Officers of Health, and others, the latest appliances of science having for their object the improvement of the public health.

HEALTH OF PARIS.

PARIS, with respect to health, contrasts favourably at the present time with the corresponding period of last year. The mortality in the week ending Saturday last rose to 943. Of these 42 were cases of dysentery, and 39 of typhoid fever. Dr. Decaisne reports that the latter disease is considerably increasing, not only in Paris, but in the departments, where it prevails in an epidemic form. There have been 40 deaths from cholerine, 87 from diarrhœa, and 2 from cholera.

THE FORTHCOMING "MEDICAL DIRECTORY."

THE editors of the "Medical Directory" announce in our advertising columns that "no qualifications will be inserted in the forthcoming edition of the 'Medical Directory' which cannot be registered under the Medical Act." The editors find that the returns of the past few weeks show a considerable increase of non-registrable foreign degrees obtained without residence, and conferring no right to practise. They have wisely, we think, determined not to insert them. Actual registration is not a condition for insertion in the "Directory," but potential registration is.

DEATH UNDER THE INFLUENCE OF AN ANÆSTHETIC.

A RECENT number of the *Oxford Chronicle* reports a fatal case at Oxford, in the Radcliffe Infirmary. The patient, a married woman, 44 years of age, was about to undergo an operation for cancer of the breast. Bichloride of methylene was administered by the Dispenser of the institution in the presence of the House-Surgeon and one of the Surgeons, on a flannel bag. After two or three convulsive gasps the patient expired. The quantity administered was small. Artificial respiration was practised, as were other means of restoration, but without success.

THE SUEZ MILITARY HOSPITAL.

WE understand that in case of the experiment about to be tried during the ensuing season, of conveying troops to and from India entirely through the Suez canal, proving successful, it is the intention of the India Office no longer to employ the Hospital, established at considerable expense five or six years ago, at Suez, for the reception and treatment of men unfit to undertake the overland transit by rail. The military and Medical staff connected with the Hospital will, therefore, probably be withdrawn in October, 1872.

THE LAST SCIENTIFIC HOAX.

OUR contemporary, *The Philadelphia Medical Times*, has recently admitted into its pages a very marvellous paper on "Microscopic Test-Objects," by a Dr. Neulenz, whose very name might have excited the editor's suspicions. It extends over a page and a half, and is undoubtedly written with great cleverness. The following brief extract may be taken as a fair sample of the whole:—

"Having constructed a one-seventieth immersion objective on a new principle, having 191° aperture—the immersion liquid being fluoric acid—and, for illumination, having invented a new eccentric parallelopiped, to be used with fluorescent rays exclusively, some remarkable results have been obtained. I take great pleasure in stating that, with regard to test-objects, all previous observers have been totally wrong in every particular, and that *Pleurosigma angulatum* is, in the first place, constructed on the plan of the Nicholson pavement; and, in the second place, that it is not a pleurosigma at all. The most certain test-object is the *Neulensia difficilissima*, a very rare and remarkable diatom, in which my one-seventieth with the parallelopiped shows four kinds of beads and six sets of cross-lines, one of which set contains 147,229,073 lines to the inch: hence, by the well-known formula of Brewster, $\frac{d\,x}{d\,u} = \sqrt{o \,.\, x \,.\, p \,.\, y}$, it is impossible that the undulations of light should pass without being previously deflagrated, and therefore no other lens can possibly show these lines, nor is it probable that this lens would with any other observer. The immense superiority of this test to Nobert's plate is apparent."

FROM ABROAD.—EXPERIMENTS ON REFRIGERATION—CHOLERA PANICS—ALBUMINURIA IN VARIOLA.

IN a recent number of the *Centralblatt* (xxxiv.), Dr. Horvath, of Kieff, reports upon some interesting results which he has derived from his experiments on the Refrigeration of Warm-blooded Animals. 1. Refrigeration was carried to such a degree in a young dog, that the temperature in the rectum descended to 6·6°, 5·8°, and even to 4·8° C. (44° to 40° F.), and yet the animal, on the reapplication of heat, revived, being then apparently in much the same condition as before the refrigeration. As far as Dr. Horvath is aware, no one had hitherto seen a warm-blooded animal restored to life after such a reduction of temperature. 2. In other experiments he has reduced the temperature (in the rectum) of a rabbit to 7° C. (45° F.), and of a cat to 9·5° C. (49° F.), and found that neither the action of the heart or the respiratory movements could be perceived. Nor did even the strongest electrical current exert the slightest effect either upon the muscles of the skeleton or directly upon exposed nerves. On the restoration of warmth, by pouring warm water over these animals, which had remained for an hour in a state of apparent death, spontaneous contractions of the heart, which had ceased for an hour, were observed. The electrical current, also, applied directly to the muscles, induced energetic contractions in the same muscles which, before the warmth was applied, were insensible to the strongest electrical action. 3. A third interesting and not less important fact is, that in an animal which was first refrigerated and then warmed, it was not possible to excite the action of the muscles of the skeleton by even the strongest electrical stimulus when applied to their nerves, while these same muscles, on the direct application of the current, contracted energetically. The fact that we can separate nervous and muscular energy from each other by this agency, which hitherto it has only been possible to do by the employment of curare, promises to be of good service in future researches concerning the physiology of the muscular and nervous system.

A writer in a recent number of the *Presse Médicale Belge* makes some very appropriate remarks upon the apparent determination of the newspapers in the dull season to get up a cholera panic. Every case, true or not, is watched for, recorded, exaggerated, and, when it has served its purpose, dismissed. To judge from what is passing, it would almost seem that every newspaper has become quite impatient at the unusually slow progress the cholera has made, in spite of so many pens anxious to record its progress. All this would be only foolish and of no consequence did it not tend to act mischievously on the public mind, and to generate among the masses a condition of panic so difficult to deal with and so mischievous in its predisposing influences. Persons under its influence neither eat nor sleep as they should, and are absorbed by their fear of the coming scourge; and such a state of mind is certainly no stranger to the ravages which the cholera usually causes on its first attacking a locality. There can be no doubt that fear invites the cholera, and prepares victims for it. Such panics

prevailed in a remarkable degree on the invasion of Brussels by the cholera in 1848 and 1866. While every sanitary precaution should be most assiduously put into force, care should at the same time be taken not to alarm the public mind by too demonstrative actions, and by the publication of exaggerated and sensational articles in the newspapers. The press has its proper function to fulfil in indicating to the different administrations the means most fitting to be adopted, and in reporting the results of the experience of other countries. Here is a wide field in which its energies can be usefully exerted, while the record of every supposed case as soon as it occurs only spreads terror. An instance of the mischief these reports may cause in a more material point of view has just occurred. A report having got into the newspapers that cholera had broken out in Antwerp, this soon made the tour of Europe, and the Italian Government at once ordered every ship coming from that port to be placed in quarantine; and yet not a case of cholera has as yet been seen in Belgium.

M. Cartaz read, at the Lyons Medical Society, an interesting paper on Albuminuria in Variola, which he terminated with the following conclusions:—1. Albuminuria is met with in confluent variola in about the proportion of one in five cases. 2. It may be—as is, indeed, usually the case—only transitory, and exercise no influence on the progress of the variola; or permanent, and attended with all the consequences inherent in Bright's disease. 3. Even when it is only a passing affection, it may in some cases give rise to serious accidents, as in the eclamptic forms of the disease, etc. 4. In the hæmorrhagic form of variola, albuminuria is of constant occurrence, whether this arise from a lesion of the kidney, from a mixture of blood, or from the two causes united.

M. Perroud, during the discussion which followed, observed that albuminuria may show itself either during the period of eruption or desquamation. In the first case it usually appears during the stage of desiccation, has nothing specific about it, and is probably a result of a nervous reflex action on the kidney, like albuminuria in erysipelas, or in burns, with which it may be classed. In the second case, albuminuria is specific, and truly variolic, recognising for its cause the action of the variolous virus on the kidney, as the pustule of variola results from the action of the virus on the skin. Like this, it is a variolic accident, but less precocious, belonging to the tertiary or visceral period of the disease, while the eruption belongs to the secondary or tegumentary period. In this respect, M. Perroud remarked that the natural history of variola may be compared with that of syphilis. Like this, it has its secondary period, characterised by multiple and successive exhibitions on the integuments (as the cutaneous rash, pustules, angina, conjunctivitis); its tertiary or visceral period, characterised by orchitis, nephritis, or pneumonia; and its intermediate period—deep-seated cutitis, abscess, and iritis. Finally, like syphilis, variola may be inoculated, and then it has its primary accident (the inoculating pustule); or it is developed by infection, and then, as in hereditary syphilis, it is devoid of primary accident. Change in the blood is only the remote cause of variolic albuminuria, the renal lesion being the proximate one. The lesion is not, for the most part, a deep-seated one, and the disease easily yields to general and local tonics, such as quinine, tannin, etc. M. Mayet considered a changed condition of the blood to be the most reasonable hypothesis for explaining the occurrence of the affection, both at an early and a late period of the variola. M. Soulier, on the other hand, regarded the hypothesis of renal lesion as the more preferable one; and, indeed, in an autopsy on a case of variola with albuminuria, he found the Brightian lesion of the kidney. If the albuminuria, indeed, depended on alteration of the blood, it would be more frequent and more fatal. One of the best means of treating this albuminuria is inunction by warm oil, and enveloping the body in a woollen covering. In this way abundant diaphoresis ensues.

ST. THOMAS'S HOSPITAL.

(*From a Correspondent.*)

One day last week St. Thomas's Hospital was quietly opened for the admission of patients; and, after allowing a few days for things to settle down, we took an opportunity of inspecting the arrangements intended for the benefit of the sick poor of London. We had heard rumours that all was not perfectly satisfactory in the new establishment, and that suggestions from those who might be supposed to know best had been consistently set on one side; but we were hardly prepared for the series of blunders we encountered. It was with something of a shock we listened to an appeal from the Treasurer of what was supposed to be one of the richest charities of London, to the outside public, for £22,000, to finish a building which had cost half a million—a sum which, however, without additional help from the public, would have remained useless to all; for bricks and mortar do not alone constitute a Hospital. It is true that out of the sum there had been secured a fine Treasurer's mansion, with a splendid banqueting-hall, together occupying nearly the whole of one pavilion; but these would be of little use to the sick. The heartrending appeal of the Treasurer, though listened to, was not responded to in such fashion as might have been desired by those who had spent their half million; so that now, although the wards are in a manner furnished, the furnishings are of the scantiest. The walls are unadorned, not even relieved with a bit of colour; but to make up for this the floors are of polished oak. It is true that sundry contrivances the uninitiated might take for night-stools, but which are disguised receptacles for clothes and provisions, are of plain deal, unpainted and unvarnished; but these need have nothing to do with propagating disease. Nay, the prime authorities seem enamoured of this dull uniformity; for we have heard outside of a gentleman collecting money from his friends for the purpose of making his ward a little less deadly-lively, but the proposed innovation has been received in a becoming manner, and such waste of money is likely to be promptly checked. Of course we needly hardly say that under such circumstances the ancient Hospital-fittings have been utilised to the utmost.

Up to a certain point, indeed, the expenditure has been lavish. The money represented by abundance of stone urns along the front of the building, which nobody cares to see, is considerable; but along the vast corridors we failed to see anything in the shape of a blind to a window. But again we have compensation. There are two magnificent operating-theatres, should there be at any time a schism in the Surgical staff of the Hospital; and one of these is furnished with three old stools and an elaborate operating-table. Hot water is brought in by the jugful—but there is a fine sun-burner!—true, there is a tap labelled "hot water," but there was none to be got from it.

With the admirable accommodation afforded to the Treasurer, one apt to come to rapid conclusions might have supposed that all the officials are correspondingly well housed; but this is by no means so. It is true the Apothecary has over a dozen rooms, which he is prepared to let out to students at a reasonable rate; but then the unfortunate Resident Accoucheur has been forgotten altogether, and certain of the resident Medical officers have only one room, to serve at once as a sitting- and bed-room. It is true there is a common room in which to take their meals, but no one is supposed to frequent it at other periods; and certainly its present aspect is not inviting. The Resident Assistant-Physician and the Resident Assistant-Surgeon have each been allotted two half-furnished rooms. It seems there is no space elsewhere; so that these gentleman, if they desire to carry on any original researches, must do so in their bedrooms. Yet these, we should have con-

cluded from their titles, would be on the footing of the honorary officers. To foster habits of activity, and to check lounging, anything in the shape of an easy chair or couch, except at their own private expense, has been denied all residents; although one's experience points to the fact that such things are useful when a man is liable to be called to a ward at any minute, and it is impossible to go to bed.

To facilitate the working of the out-patient department, it is carried on at different parts of the building. A patient presents himself—let us say his case is diagnosed, as far as one can make out, or at all events its severity determined by a porter, and he is conveyed to one or other of some half-dozen rooms, according to the porter's judgment. If he is to be seen as an out-patient, or if he requires any medicine, he has next before him a pleasant walk outside the building, without any protection from the weather, for a distance corresponding to nearly half its length, and to wait again until attended to.

Again, to facilitate intercourse, electric bells have been plentifully dispersed throughout the building; but a code of signals will be necessary to make them useful. The simple speaking-tube exists not. Nay, we are not certain that there is any communication between the accident reception-room and that of the resident dresser, who is perched away near the roof, at a distance from his work.

But then, to compensate for all this, there is a private mortuary, constructed of finely-polished slate, and with appropriate curtains. Who it is intended for, or to what useful ends it exists—for there is another deadhouse convenient enough—we were unable to find out. Doubtless, however, it has a design beyond that of costing money, which might have been better expended elsewhere. Meanwhile, it exists; a fitting memorial of autocratic centralisation.

REPORT OF THE POOR-LAW BOARD.—IV.

(*Continued from page* 290.)

With a glance at the report of Mr. Farnall contained in the Appendix, our review of that portion of the Board's Report which relates to out-door Medical relief finishes. This Inspector bases his conclusions on statistics drawn from eleven places—Aylsham, Blofield, Depwade, East and West Flegg, Forehoe, Guilteross, Loddon and Clavering, Ongar, Thetford, Witham, and Yarmouth. The tables which he gives show that, for the week ended Lady-day, 1870, there were in the above places 1969 pauper patients under the care of the several District Medical Officers, and that of those, 43·1 per cent. received food and stimulants on the recommendation of the Medical officers. It seems to be with Mr. Farnall, as with Mr. Cane, a grievance that he cannot report that all the Medical officers hold precisely the same views with regard to the number of pounds of meat and the number of ounces of wine requisite for their districts. Mr. Farnall admits that, taking the districts as a whole, none too much in the way of stimulants was ordered. Thus, "there are fifty-two District Medical Officers employed in the above eleven unions, and the tables show that, upon an average, they each had thirty-eight pauper patients during the week ended Lady-day, 1870, of whom an average of sixteen only were supplied with food and stimulants, and this in districts where, as I understand from the best authority, the wages of an agricultural labourer do not exceed 10s. per week." But he complains that "in the Aylsham Union Mr. J. W. Saunders, Medical Officer of the Fourth District, recommended food and stimulants to 5·5 per cent. of his pauper patients only, while Mr. R. K. Morton, Medical Officer of the Sixth District, recommended food and stimulants to all his pauper patients, which is at the rate of 94·5 per cent. in excess of Mr. Saunders's recommendations. Again, in relation to the practice of Medical officers in one union in recommending food and stimulants as compared with a similar practice of Medical officers in another union in the same county, I may instance the Great Yarmouth Union as compared with the Guilteross Union. In the former union, food and stimulants are recommended to 22·6 per cent. of the pauper patients only, while in the latter union 52·0 per cent. of the pauper patients receive food and stimulants; so that the recommendations in the latter union were 29·4 per cent. in excess of the former. It is, I believe, this diversity of practice on the part of District Medical Officers in the same union, and of one union as compared with another union, which produces a strong impression in the minds of many guardians that their Medical officers abuse the very valuable authority which is given them to recommend food and stimulants to their pauper patients."

But, although Mr. Farnall alludes to the "impression in the minds of many guardians" that Medical officers abuse their privilege, he does not, as does Mr. Cane, affirm the correctness of the impression. Nor does he say that the abuse arises because the Medical officers prefer to work their cures *viâ* "the butcher's shop," stocked by the guardians, rather than *viâ* "the Doctor's shop," stocked by the Medical officer. But if he does not accuse the Medical officer of this particular form of meanness—or, at least, refrains from finding him guilty—he lays to his charge another mode of wronging his patients and his employers. As we shall see presently, he charges him with not giving the best drugs. Mr. Farnall advises the Poor-law Board not to disturb existing rules, but suggests that "a remedy might be found which would meet the objections which many of the guardians entertain as to the proceedings of their Medical officers in ordering food and stimulants to some of their pauper patients, and that remedy consists, as it seems to me, in establishing dispensaries in every union, the guardians being legally bound to provide such dispensaries with competent dispensers, and sufficient medicines of the best quality. I am of opinion that these dispensaries would be beneficial both to the ratepayers and the poor, because the supply of cod-liver oil and quinine, and other expensive drugs, would be at the disposal of District Medical Officers for their pauper patients, and should, to a considerable extent, become wholesome substitutes for stimulants and meat, and also because *the sick poor, being supplied with the best medicines*" [which, impliedly, they are not now], "would have, as I believe, a better chance of a speedy recovery than they now obtain through the medium of medicines supplied at the cost of District Medical Officers, whose salaries are generally insufficient to enable them to administer expensive drugs to the sick poor under their care." On reconsideration, however, Mr. Farnall's bolt seems to have "missed the sparrow and killed the crow," since the question naturally arises—By whom are those salaries offered which are generally insufficient to enable the Medical officers "to administer expensive drugs to the sick poor"?

But if Mr. Farnall has failed, even with the aid of very elaborate statistics, to substantiate any very serious charge against the Medical officers as a class, he has wound up his report with some notes on the system in one of his sample unions, which seem to deserve special attention. He says—

"This union adopted what is termed the 'per case' system in administering out-door Medical relief, and the result of that system is shown in the Tables 'A' and 'B,' the first-named table giving the fact that upwards of 50 per cent. of the pauper patients are supplied with food and stimulants, whereas the average number thus supplied in the eleven unions is 43 per cent.; and Table 'B' gives the result that 2·1 per cent. of the population, in 1861, of that union were attended as pauper patients, whereas the average percentage of pauper patients on population in the eleven unions is only 1·1, and, no doubt, these results have led to the conclusion which is expressed in the clerk's letter to me, that the 'per case' system of out-door Medical relief is by no means approved by the present board of guardians; and I may add, for your information, that for the week ended April 9 last the percentage of pauperism on population in the Witham Union was 8·6, which very far exceeds the pauperism of England and Wales."

It will be seen from what we have quoted that Mr. Farnall gives an unqualified approval to the establishment of the dispensary system in the provinces, while Mr. Cane, as mentioned in our last, considers that system practicable, at all events in populous districts. We omitted to quote Mr. Peel's opinion on this point; it is to the following effect:—"It would be certainly practicable to establish dispensaries, not only in the large towns, but in the thinly populated and extensive rural unions. In the large towns, one or two central dispensaries would probably be sufficient; but in some of the large rural unions the Medical stations would necessarily, from the distances at which the population live asunder, require to be much more numerous."

These are the only Inspectors whose judgment appears to have been taken on the matter by Mr. Goschen during the

period embraced by the Report; but it is understood that, as a body, the Poor-law Inspectors are favourable to the adoption of the system. Although this, the final Report of the Poor-law Board, gives no assurance that that Board intended to secure for England and Wales an approximation to the mode of Medical relief which has been found to work so well in Ireland, we may confidently expect that the first Report of the Local Government Board will, while recording the success of the system in the metropolis—if there be such a success to record—announce its speedy extension to the provinces.

ENGLISH HOSPITAL AT METZ.

DECEMBER, 1870; JANUARY AND FEBRUARY, 1871.

(*From a Correspondent.*)

(*Continued from page* 262.)

A RATHER remarkable fact in the history of our Hospital was the absence of pyæmia; I do not think a case broke out amongst us, although some patients already pyæmic were sent to us. I cannot attribute this to an unusual amount of ventilation, or to anything peculiar in the quantity or kind of disinfectants used. Whether pyæmia is more prevalent in summer than in winter I do not know, but I cannot help thinking that the exceptionally intense cold which prevailed at the time prevented its development.

Before our taking the Hospital pyæmia had occurred; indeed, we found some cases there when we came in. The cold weather set in about that time, and no fresh cases occurred. The condition of the Hospital was such as is generally considered likely to develope an epidemic of pyæmia. It had been overcrowded for four months with men suffering from profusely suppurating wounds; the wounds had not been dressed sufficiently often or carefully, and there had been great want of attention to the sanitary condition of the wards. Earlier in the war, when the weather was warm, pyæmia was a frightful cause of mortality in many of the temporary Hospitals, showing itself within two or three weeks, or even less, after the establishment of the Hospitals. I am not aware if other military Hospitals were as free from it as we were during that cold weather. Several patients suffered from exhausting night-sweats, the result of long and profuse suppuration. Quinine with sulphuric acid, or with tincture of steel, improved their health and checked the sweating. The quinine was sometimes given in single doses of ten or fifteen grains, sometimes in doses of two or three grains four times a day. I think the repetition of small doses was more useful than the single large ones, though fifteen grains did not cause much headache or discomfort. I have already mentioned that we found a great proportion of our patients suffering from bedsores. This very troublesome complication did not, except in cases of great exhaustion, affect seriously the condition of the patients; air-cushions, and, in the more severe cases, air-beds, with simple dressing to the sores, served to cure them.

The most obstinate and fatal disease with which we had to deal was dysentery. The patients would appear to improve for several days together, leading us to hope that they were through the worst of it, only to relapse into an almost dying condition. These fluctuations occurred in nearly all our cases. The relapses were commonly due to the rations which were served out to the men, consisting often, among other things, of half-cooked peas and beans. At first we had not sufficient control over the diet, but afterwards managed to establish a system of special diet for such cases. Independently of the improper food, the disease was of a very chronic character, and difficult to cure.

Post-mortem examinations were made in many cases. The appearances were in nearly all alike. The intestinal mucous membrane from the anus to the ileo-cæcal valve was almost black, sloughing, and containing extravasated blood. Distinct ulcers were rarely discernible. The muscular and peritoneal coats were softened, the whole thickness of the gut being easily torn. The disease often extended three or four inches above the valve, but not more. As it extended upwards in the small intestine, it became gradually less intense, the colour of the mucous membrane becoming lighter, and its texture more natural, till, at a short distance above the valve, it assumed its normal appearance. No case of hepatic abscess was observed either during life or after death. The patients were treated first by chlorodyne or opium, with occasional doses of castor oil; no permanent relief followed this plan. Opium allayed pain and gave sleep temporarily, but the disease was not influenced. The ipecacuanha treatment was then tried, and with fair success; doses of five to fifteen grains of the powder were given three or four times a day; it rarely caused vomiting, except at the first dose, sometimes not even then. The spasm and pain were in most cases relieved after a few doses, and the patients greatly improved. Sulphuric acid and opium, with occasional injections of sulphate of copper and opium, appeared to assist in completing the cure.

Among those points which have appeared to me of most interest in our work at Metz I will mention the use of a solution of sulphurous acid as a dressing for wounds; it was our general dressing for wounds in all stages, and was found by us most valuable. I am aware that it is not a new remedy, but I believe that it is by no means so generally used as it deserves to be. The preparation we used was a strong aqueous solution of the gas, of which about half an ounce may be mixed with a pint of water. With this lotion the wounds were first washed by means of an irrigator—that is, a metal can, to which is attached a gutta-percha tube and bone nozzle—the most simple, convenient, and complete way of washing wounds. The mode of dressing was the same as with any other lotion.

Sulphurous acid was used with good results in hospital gangrene, as I have already mentioned. It is also a valuable dressing for fresh wounds, as amputations; but I think its healing effects are most evident in large open sores, whether the direct result of wounds or the result of sloughing or phlegmonous erysipelas—such sores as ulcerate at one point of their circumference while they heal at another, often requiring months to heal, and sometimes exhausting the patient.

I may give one of our cases as an example of many:—A man, who had received a slight wound, had phlegmonous erysipelas of the thigh, leg, and foot. Incisions had been made from the upper part of the thigh down to the dorsum of the foot. We found him with immense indolent sores, the result of the disease. They were dressed first with carbolised water, carbolised oil, and other things, the sores healing at some points and extending in others. After a single dressing with sulphurous acid lotion, they resumed a better appearance; healing went on rapidly, and, when we left him, the man was as nearly as possible well. I have not heard that it was generally used in other military Hospitals. A French Surgeon told me that he had used it, but did not like it, because it healed wounds too rapidly. On inquiring further, I did not find that the rapidity of healing had led to bad results in his practice.

I think it probable that sulphurous acid would be useful in dressing the large granulating surfaces resulting from burns.

I may also mention our results in skin-grafting. We tried it in five cases. The first was a case of several superficial wounds of an indolent appearance: in this case the experiment was repeated several times, but no graft became attached. The second was a case of superficial wound about two inches in diameter, in the upper part of the thigh: the first attempt failed; the second succeeded, but the graft was so long before it began to increase that the sore healed almost independently of it. In the third case the patient had a sore, three inches long by one inch wide, on the back of the thigh. The sore was the remains of a much larger wound; it was healthy in appearance, discharging very little, but healing very slowly: one graft was put on this, which began to increase on the fifth day, and the sore rapidly skinned over. The fourth case resembled the third in character and in result. The fifth was a large ulcer, eight inches long by four wide, left by the separation of a slough: as soon as it began to assume a healthy appearance, a skin-graft as large as a fourpenny-bit was placed on it; the graft united, and, in about nine days, began to increase. In this case I have no doubt the healing of the wound was accelerated by the graft. With regard to our manner of grafting, we took up a small portion of skin with a pair of dissecting-forceps, and cut it off with a pair of scissors. This left a little wound, from which blood oozed slightly; the graft was nearly as large as a barleycorn, and of an oval shape. In the one case mentioned as the fifth a much larger graft was used, with the same result. The grafts were gently laid on the granulations, and secured by a piece of strapping; transparent gelatine strapping is clean and convenient, as the graft can be seen through it. No incision was made in the granulations. The strapping was generally taken off on the second day, sometimes on the third, and a fresh piece put on. By the second day the graft was usually firmly attached; after that it began to dwindle, sometimes disappearing altogether sometimes beginning to increase on the fifth or sixth day, or

later. In our successful cases the wounds were all healthy, and there was not very profuse discharge—conditions which seem essential to success. Some of the grafts were taken from the patient to be grafted, some from other persons, with the same result.

After grafting, the wounds were dressed with water-dressing or olive oil. I do not think that grafting is of much service except in very large sores; in such cases half a dozen grafts might be put on the sore, and much time saved in the cure. Among our own cases there were very few that could not be cured as quickly by dressing with sulphurous acid lotion alone as with the help of grafts. Snipping off the morsel of skin for the graft is an almost painless operation.

(*To be continued.*)

REVIEWS.

A Treatise on Diseases of the Nervous System. By WILLIAM A. HAMMOND, M.D., Professor of Diseases of the Mind and Nervous System and of Clinical Medicine in the Bellevue Hospital Medical College, New York, &c. 8vo. Pp. xxv., 774. 1871. New York: D. Appleton and Co.

THIS is unquestionably the most complete treatise on the diseases to which it is devoted that has yet appeared in the English language; and its value is much increased by the fact that Dr. Hammond has mainly based it on his own experience and practice, which we need hardly remind our readers have been very extensive.

The volume commences with an introduction describing "The Instruments and Apparatus employed in the Diagnosis and Treatment of Diseases of the Nervous System;" and this is succeeded by five sections in which the respective diseases of (1) the brain, (2) the spinal cord, (3) the cerebro-spinal axis, (4) the nerve-cells, and (5) the peripheral nerves are considered.

The first of the diseases of the brain in our author's classification is, as might be expected, *cerebral congestion*, in its active and passive forms. Regarding active cerebral congestion in its first stage, he observes that a spontaneous cure is rare, and without proper Medical treatment the symptoms pass, sooner or later, into a more fully developed form—the apoplectic, the epileptic, or the maniacal. Out of 507 cases recorded in Dr. Hammond's note-book, the disease was arrested at the first stage in 478, but in not one of these was there an instance of spontaneous cure. The following is our author's description of the maniacal form of the second stage:—

"This variety, though not so common as either of the others, is yet not infrequent. It is characterised by an accession of mental derangement not materially different from that indicative of acute mania. The delirium is of a very active character, the eyes are suffused, the face is red, the head hot, the motility active, and the whole manner, character, disposition, and mental processes are changed. During the paroxysm the patient may commit some crime of violence, and it almost always happens that his combative proclivities are aroused. He may likewise attempt to injure himself.

"The attack may come on with great suddenness. In the case of a gentleman recently under my charge it was the result of eating a hearty meal in a great hurry at a railway station. A few minutes after his return to the train, he was attacked with furious delirium, during which he attempted to injure himself and all within his reach. He was seized and held, but continued, as far as he was able, to bite, scratch, and kick at those who were near him. The paroxysm lasted about two hours. He then fell into a heavy stupor, from which he did not arouse for two hours longer. For several days his mind was weak, and there was numbness in various parts of his body. Gradually, however, he regained his former powers, but he suffered from occasional confusion of thought and difficulty of speech, with headache and wakefulness for several weeks.

"Paralysis, as in the other two forms, may be one of the phenomena of this variety of cerebral congestion.

"Death may take place during the attack, or from secondary lesions afterwards. Of the twenty-nine fully developed cases, four were of the maniacal form.

"What is called temporary insanity, mania ephemera, or impulsive insanity, generally depends upon cerebral congestion. The subject, therefore, is of vast importance in its Medico-legal relations."—P. 40.

In the treatment of active congestion, Dr. Hammond never finds venesection necessary. A few cups to the nape of the neck, or leeches to the temple or (preferably) just inside the nostrils, often yield the most satisfactory results. After noticing the value of cold applications to the head or neck, and the importance of attending to the patient's position and dress about the neck, he points out the good effects which frequently follow a few applications of the constant galvanic current in abolishing vertigo and unpleasant feelings in the head, and in restoring mental and physical ability. This agent acts by stimulating the sympathetic nerve; the positive pole being placed over this nerve in the neck, and the negative on the neck as low down as the last cervical vertebra. Care must be taken that the current is not too strong or continued for more than two minutes.

First amongst internal remedies must be placed bromide of potassium or sodium in full doses three times a day, in conjunction (not in combination) with which oxide of zinc, in two-grain doses, may be given after meals. When the symptoms of congestion have disappeared under this treatment, strychnine, phosphorus, and cod-liver oil may be given with advantage as tonics and restoratives. Phosphorus, he tells us, almost always acts well in these cases, and may be given in the form of phosphoretted oil or as phosphide of zinc, a Parisian remedy. Of the latter preparation he thinks very highly. It contains only one-seventh of its weight of phosphorus, and its proper dose is therefore about one-tenth of a grain. His formula is—phosphide of zinc, gr. iij.; extract of nux vomica, gr. x.; conserve of roses, enough to make thirty pills. Dose, one pill three times a day. Under "Hygienic Treatment," he remarks that bathing daily and subsequent friction with a tape-towel are exceedingly useful in determining the blood to the skin, and that the Turkish bath cannot be too highly commended.

There are many points in the chapter on "Cerebral Hæmorrhage" to which we should have liked to have directed our readers' attention, but we must restrict ourselves to one quotation, illustrating the important question whether it is possible or not to determine during life in what part of the brain an extravasation has taken place:—

"As a general rule, hæmorrhage is more liable to take place within the ganglia constituting the motor tract than in any other part of the brain, the reason, doubtless, being that this is the most vascular part of the cerebral substance.

"When the lesion is limited to the corpus striatum of one side, there is loss of the power of voluntary motion on the opposite side, but no abolition of sensibility, except, perhaps, for a few hours.

"The optic thalamus is another common seat of extravasation. In such a case the observed symptoms are especially connected with the organs of the special senses. Thus there are double vision, dilatation or convulsive movements of the pupil, blindness, and anæsthesia or hyperæsthesia of the paralysed parts of the body. As in lesion of the corpus striatum, the paralysis of motion, when it exists, is on the opposite side of the body. The hearing and smell may also be affected.

"It generally happens that an extravasation, originating in either the corpus striatum or optic thalamus, involves both these ganglia. Hence we have, as the most common symptoms of cerebral hæmorrhage, loss or impairment of the power of motion, disturbance of sensibility, dilatation or irregular movements of the pupil, aberrations of vision, etc.

"When the extravasation beginning in the left optic thalamus or corpus striatum extends to the fissure of Sylvius, so as to involve the posterior part of the third frontal convolution, the island of Reil, or other part supplied by the middle cerebral artery, or when it originates in this region, aberrations of speech occur. These are independent of paralysis of the tongue, and are such as are embraced under the term aphasia.

"Hæmorrhage into the crus cerebri produces hemiplegia of the opposite side, more or less extensive according to the size of the clot, with loss of sensibility. The third pair arises in part from the crus, and hence may be paralysed, producing ptosis and external strabismus on the side corresponding to the seat of the lesion, and consequently opposite to the hemiplegia.

"When the pons Varolii is affected, the crossed paralysis is still more marked. The limbs are paralysed on the opposite side, and the face, in whole or in part, on the same side as that in which the hæmorrhage takes place. If the extravasation is in the mesial line, both sides of the body are paralysed.

"The principal symptoms indicating the medulla oblongata as the seat of extravasation are loss of the power of swallowing, from paralysis of the glosso-pharyngeal, difficulty of protruding the tongue, from paralysis of the hypoglossal, and huskiness of the voice, tumultuous action of the heart, dyspnœa, and gastric derangement, from paralysis of the pneumo-gastric nerve.

"In lesions strictly limited to the ganglia cited, there is no aberration of the intellectual faculties. It is only when the

grey substance of the cerebrum or cerebellum is involved that the mind participates."—Pp. 102-4.

The chapter on "Aphasia" occupies upwards of fifty pages, and forms a complete monograph on this mysterious disorder. Dr. Hammond gives tables showing that out of 260 cases of aphasia with hemiplegia (forty-six of which occurred in the New York Hospital), the paralysis was on the right side 243 times, and only seventeen times on the left; and that out of 344 autopsies, 314 supported the left anterior lobe theory, and thirty-one opposed it. He regards the ordinary association of aphasia with right hemiplegia as due to the fact that embolus, which is generally the cause of aphasia, is much more common in the left than in the right middle cerebral artery. (Thus, in forty-two cases of cerebral embolism collected by Meissner, the left hemisphere was affected in thirty-four cases, and of thirty-seven cases in the author's practice thirty-one were on the left side.) Giving full consideration to the facts and arguments that have been urged on all sides of the question, Dr. Hammond, rejecting the locations assigned by MM. Dax and Broca (which are too well known to require to be described), feels constrained to believe—

"1. That the organ of language is situated in both hemispheres, and in that part which is nourished by the middle cerebral artery.

"2. That, whilst the more frequent occurrence of right hemiplegia in connexion with aphasia is in great part the result of the anatomical arrangements of the arteries, which favour embolism on that side, there is strong evidence to show that the left side of the brain is more intimately connected with the faculty of speech than the right."—P. 202.

These cautiously expressed views are supported by a series of fourteen very interesting cases. In one of them the cerebral lesion was due to a blow on the left side of the head some months previously, and the aphasia was at once removed by the operation of trephining, which revealed the fact that a splinter of bone had been pressing on the posterior frontal convolution. In all the cases in which hemiplegia was present the aphasia was of the ataxic form, while when there was no hemiplegia the aphasia was amnesic. In the former, the individual was deprived of speech because he could not co-ordinate the muscles used in articulation; in the latter, because he had lost the memory of words. Dr. Hammond regards these facts as of great value in indicating the seat of the lesion and the physiology of the parts involved. The grey matter of the lobes presides over the *idea* of language, and hence over the memory of words; and when *it* only is involved there is no hemiplegia or difficulty of articulation. Similarly, ataxic aphasia indicates a lesion of the motor tract; while, if amnesic aphasia is also present, the hemisphere is also involved. The chapter concludes with the sound practical advice that "constant efforts should be made to exercise the vocal organs by attempts to speak, and by the application of the galvanic or faradaic currents to the tongue and other muscles concerned in articulation."

The chapters on "Diffused and Multiple Cerebral Sclerosis" (especially the latter) contain a large amount of information which will, we believe, prove new to the great majority of our readers. We must restrict ourselves to a brief abstract of the author's history of "Multiple Cerebral Sclerosis"—a lesion involving several parts of the same ganglion, and consisting of plates or nodules of sclerosed tissue scattered through its substance. In Reynolds's "System of Medicine" there is not the slightest reference to cerebral sclerosis; and many of the cases referred by that Physician to muscular anæsthesia seem to belong to Dr. Hammond's "multiple cerebral sclerosis," which also includes other anomalous forms of disease in which muscular ataxia, chiefly (but not usually) of the upper part of the body, is the most prominent symptom. The progress of a typical case may be thus described:—The first symptom generally is pain occurring in short paroxysms, or occasionally an epileptic attack; numbness of the ends of the fingers or toes is then complained of, and several months may elapse before any indications of tremor appear. This tremor is usually gradual in its development, and may be restricted to narrow limits, as even a single finger, from which it may extend slowly to the extremities and face, the head being usually the last part affected. At first and for a long time the tremor is to some extent under the control of the will, and the shaking ceases during sleep; but eventually the patient ceases to be able to check it, and sleep affords no respite, so that a further cause of exhaustion is introduced by the want of rest. The next symptom of importance is paralysis, and when the sclerosis is limited to the hemispheres or begins in them, it always follows the tremor. The period intervening between the appearance of the tremor and the accession of the paralysis varies from a few weeks to many months.

The attitude and gait of patients suffering from this disease are peculiar. The body is generally inclined forward, with the head falling toward the chest, the trunk flexed at the pelvis, and the knees slightly bent. In walking, the action is that of a jog-trot, the patient often moving with considerable rapidity. Sometimes the patient cannot stand without help, but on receiving a push will go off at full speed. This symptom, as well as that of being unable to stop without coming, as it were, to an anchor, by seizing a lamp-post or other fixed object, has been observed in the cases which we are in the habit of regarding as pertaining to locomotor ataxy. Sometimes there is a tendency to go backwards. This was the case, to a remarkable extent, in a gentleman who consulted Dr. Hammond. Every time he rose from his chair he was forced to take several steps backward, and it was only by constant mental effort that he was able to go forward at all.

In his remarks on the diagnosis he admits that "multiple cerebral sclerosis has heretofore been confounded with other diseases," and that "its very existence is doubted" by certain Physicians of eminence in this department. Although the prognosis is always unfavourable, he believes that in its early stages the disease may be, at all events, alleviated by treatment. The medicines on which he places most reliance are chloride of barium and tincture of hyoscyamus, simultaneously administered. The former he prescribes in doses of a grain (given in aqueous solution) three times a day; and the latter in doses of from one to two drachms, morning, noon, and night. In six cases out of nine he has given these remedies, either alone or with others, with decided benefit. Electricity is, however (he adds), a powerful adjunct, and should always be employed, if possible. The primary current from fifteen of Smee's cells should be passed through the brain, anteroposteriorly and laterally, and the sympathetic nerve should likewise be acted on. For the muscular tremors he uses a primary current of low tension, whilst for the paralysis the induced current, not too strong, is to be recommended.

There are various points in the chapters on "Tumours of the Brain" and on "Insanity" to which we should have been glad to have directed the attention of our readers, if space had permitted. But our allotted limits are already exceeded; and hence we must defer to a second article our notice of the concluding portion of this thoroughly practical work, in which the diseases of the spinal cord, the cerebro-spinal axis, the nerve-cells, and the peripheral nerves are considered.

NEW BOOKS, WITH SHORT CRITIQUES.

Handy-Book of the Treatment of Women's and Children's Diseases, according to the Vienna School, with Prescriptions. By Dr. Emil Dillnberger. Translated by Patrick Nicol, M.B. London: J. and A. Churchill. Pp. 208.

*** This little work may be of great use to many of our Practitioners in making known to them some of the modes of treatment pursued in Germany in dealing with the diseases of women and children. These maladies, especially those of women, have received more attention at our hands and those of our American brethren than they have done in most parts; nevertheless, some notice of the modes of prescribing and the fashions of operative procedure adopted in Germany may be of value. For such a purpose the book of Dr. Dillnberger is likely to prove of service, but it might have been rendered more generally useful had another plan been adopted in converting it from the German. The translator seems to have done his work only too faithfully; he has rendered the German words into their English equivalents, but the result is a book certainly not in accord with the ordinary rules of English grammar. It would also have been well to have rendered the prescriptions as far as possible into their English equivalents, instead of leaving them as in the original, for few have the means of ascertaining the composition of any of the Galenical preparations here ordered.

Phrenology, and How to Use it in Analysing Character. By Nicholas Morgan. Longmans.

*** No doubt this is a fair exposition of phrenology as believed in and studied by the more advanced disciples of that so-called "science." But we take exception to books of this kind, from the assumption of their writers that the "principles and practice of phrenology" are founded on fixed data, and according to their authors—at least to the one under notice—"the testimony of God as published in the volume of human nature."

Now, it is pretty evident that the "testimony of God" so "published" is liable to be read in very different ways by different "observers," and those who are not completely initiated will be liable to confound quality with quantity, and bulk with intensity.

Harveian Oration, 1871, *and Two Sequels*. By Dr. Chambers. Philadelphia: H. Lee.

*** The title chosen by Dr. Chambers is "Restorative Medicine," and on this he dwells with much force and originality. The "Sequels" follow up the same subject, interspersed with others, in a lively conversation between (in the first) the Vicar, Medicus, Chemicus, Psychicus, Chirurgus, Mr. Vain Pomps; and (in the second) between Medicus, Chemicus, Physicus, Orator, and Mrs. Orator, who, in conversation—now "grave," now "gay," now "lively," now "severe"—give us a pleasant half-hour's reading.

Cholera: What it is, and How to Prevent it. By E. Lankester, M.D. Routledge.

*** A reissue of a *brochure* which originally appeared on the approach of cholera in 1866. It is a useful little manual for popular perusal, and contains nine chapters, as follows:—The History of Cholera; Is Cholera Contagious? Symptoms of Cholera; The Poison of Cholera; Causes of the Tendency to take Cholera; How Cholera Poison is Conveyed; How to Prevent Cholera; What to do when Cholera breaks out; On Disinfectants. These various chapters are clearly and simply written.

Notizen und Erinnerungen eines Ambulanz-Chirurgen. Von William MacCormac, Wundarzt am St. Thomas-Hospitale en London, etc. Aus dem Englischen Ubersetzt und mit Bemerkungen Verschen von Dr. Louis Stromeyer, Verfasser der "Maximen der Kriegsheit-Kunsthandlung." Hannover: Hahnische Hofbuch.

Notes and Recollections of an Ambulance Surgeon. By W. MacCormac, Surgeon to St. Thomas's Hospital. Translated and annotated by Dr. L. Stromeyer, author of the "Maxims of Military Surgery." Pp. 183.

*** This translation of Mr. MacCormac's work has evidently been a labour of love to Dr. Stromeyer, and his remarks, though short, add to the value of the work. The exceedingly complimentary remarks on Mr. MacCormac cannot fail to be gratifying to that gentleman.

FOREIGN CORRESPONDENCE.

HOLLAND.

(*From our own Correspondent.*)

Rotterdam, September 8.

Small-pox in Holland.

The following are the official monthly returns for June:—

Towns.	Population Jan. 1, 1871.	Deaths from all causes, with still-born, in 10,000 inhabitants.	Deaths from small-pox.	Deaths from scarlet fever.	Deaths from measles.	Deaths from angina diphtheritica.
Amsterdam .	281805	33·8	384	2	8	1
Rotterdam .	123097	30·8	73	1	—	2
The Hague .	93083	23·2	62	—	—	1
Utrecht . .	60587	22	19	—	—	—

COLONIAL CORRESPONDENCE.

AUSTRALIA.

Melbourne, Victoria, July 15.

During the past four or five weeks there has been an epidemic of influenza all over this colony, much more severe, however, in particular parts. It has been principally confined to adults, very young children not suffering at all. The whole track of the mucous membrane lining the air-passages has been affected; but the disease has observed no rule as to the portion in which it commenced, or in which it principally manifested itself. In every instance, however, it appears to have been distinguished by a remarkable prostration and a complete anorexia. The loathing for food has been very marked. Some cases have been further distinguished by the most violent cephalalgia, others by lumbago, and all by more or less of rheumatic pains in the limbs. The suddenness of the attack has also been a peculiarly distinguishing feature. Persons in complete health have felt themselves instantaneously seized with an unaccountable languor and mental depression, accompanied by violent coughing and coryza, so as quite to justify the French designation of a certain form of catarrh—viz., "la grippe." It has not, however, been fatal save in the case of persons previously much debilitated from other causes. During most of the time there has been a steady prevalence of cold north winds of an unusually chilling and discomfort-creating character. In summer, as you are aware, our north winds are hot—corresponding to the simoom of Arabia or the sirocco of South Europe—but in winter they are cold. In either case, however, the wind is very desiccating; perfectly anhydrous and entirely deficient in ozone. There would certainly appear to be some connexion between the continuance of this wind and the prevalence of the influenza.

In the treatment, diffusible stimulants have been found useful; and in the first stage the steady use of tincture of aconite in one-minim doses every hour has appeared considerably to abbreviate the duration of the affection.

There is a good deal of talk just now of a disinfectant, lately introduced to the public by a Mr. Sullivan, who has for some months been experimenting upon it in the laboratory of Mr. Cosmo Newbery, the analytical chemist attached to the Technological Museum. It appears closely to resemble the chloralum now in such general use in England, but it is obtained from kaolin clay, which is found in large quantities a few miles from Melbourne. So far as this disinfectant has been tried, it has indicated a high degree of power in controlling the progress of putrefaction. A putrid body upon which it was well sprinkled ceased to emit any unpleasant odours whatever. Mr. Newbery read a short paper upon it before the Royal Society a few nights ago.

On the subject of antiseptics, too, Dr. Day, of Geelong, whose labours in connexion with ozone and its uses are well known, lately contributed a paper to the Medical Society. Dr. Day, basing his belief upon the ascertained efficacy of solutions of the peroxide of hydrogen in neutralising the activity of pus corpuscles, thinks the peroxide might be employed as a means of arresting the spread of small-pox, both by applying it directly to the pustules and by diffusing it through the atmosphere of wards and rooms in which persons suffering from variola are lying. Happily, we have no means, in this colony, of putting Dr. Day's suggestions into practice, as, so far, we have been fortunate in arresting small-pox before it has become epidemic. But there is so much reason in Dr. Day's conclusions that his theory well deserves a practical testing.

On the 13th, the sixth annual meeting of the Medical Benevolent Association was held. The complete success of this endeavour to provide for the less fortunate members of the Profession in this colony has been thoroughly established. Commencing in the most unpretending manner, and conducting its operations with the most rigid economy, it has well fulfilled the purposes for which it was intended, and has accumulated a fund which will form the basis of a permanent source of relief, thus rendering the society more or less independent of annual subscriptions. The annual meeting appointed a Committee consisting of Dr. Tracy, Dr. Nield, Dr. Martin, and Dr. Cutts, to consider and report as to how best the fund should be invested, and in what manner the interest arising from it should be applied.

The City Council are at present in debate upon the question of recommending to the Government the desirability of introducing to the Legislature a measure similar to the Prevention of Contagious Diseases Act. The necessity of such an Act in this colony is abundantly apparent, and there is a strong feeling in favour of its adoption.

PROVINCIAL CORRESPONDENCE.

IRELAND.

Dublin, September 12.

Drs. Nugent and Hatchell, the Inspectors of Lunatic Asylums in Ireland, have just issued their twentieth report. From the statistics contained in this publication, it appears that the number of insane persons in the country was larger in 1870 than it had been in the previous year. The total number of registered lunatics was, in 1869, 10,080; in 1870, 10,266. The numbers at large were 6579 and 6936 in the two years

respectively. There was an apparent increase of 347 persons in public asylums, the totals being, in 1869, 6316; and in 1870, 6663. But one lunatic was confined in gaol at the end of last year. Owing to increased accommodation in the public asylums throughout the country, in which there is now provision for some 7600 patients, a large number of insane persons have been transferred to them from the poorhouses. Unfortunately, under the term "insane" are included the idiotic and demented, many of whom would be even better circumstanced in the wards of the various poorhouses than in institutions for the treatment of the insane. The cost of the district asylums through the different counties for the year 1870 was £10,930 in excess of that for the previous year. The respective amounts were, for 1869, £140,034 10s. 11d.; and for 1870, £150,964 19s. 9d. The actual increase in expenditure is, however, reduced to £2742 when allowance is made for the maintenance of the 347 additional patients above mentioned. In the report are also given full particulars of the conditions of each asylum.

At the recent monthly meeting of the Board of the Coombe Lying-in Hospital, Dr. Arthur Hill Ringland was unanimously elected to the office of Assistant-Physician: and at the same time a resolution, couched in most gratifying terms, was passed, conveying to the out-going Assistant, Dr. William Roe, an expression of the lively sense of his ability, zeal, and kindness entertained by the guardians and directors of the institution. A letter was also read, informing the Board that a bequest of £500 had been left to the charity by the will of the late M. B. Mullins, Esq., of Fitzwilliam-square.

Most of your readers are, doubtless, aware of the strongly nationalistic demonstrations which have recently taken place in our city on the occasion of the visit of some French noblemen and gentlemen, philanthropists in the fullest sense of the word. This is not the place to comment on the taste which led men, who from their station should have known better, to make capital of a visit to our shores of a distinguished party of foreigners, to advance their own peculiar political views. We allude to the demonstrations in question simply because, on Sunday fortnight, an eminent member of our Profession, while standing on his hall-door steps, was assaulted by some of the roughs, who poured forth in multitudes to take a noisy holiday. We are glad to be able to say that no ill-consequences followed in the gentleman's case, and that summary punishment was visited on the assailants.

The near approach of cholera along the Baltic seaboard has naturally attracted considerable attention here, and precautionary measures have been taken by the different local authorities. In some respects such measures are still deplorably incomplete, and hence inefficient. We want an isolated cholera Hospital, and proper means for the conveyance of patients to it. Again, with the River Liffey in its present state, and with extremely deficient sanitary arrangements in the poorer districts of the city, the likelihood of the terrible epidemic gaining ground, should it once obtain an entrance, is much to be dreaded. The authorities seem to depend too exclusively on the purity of the Vartry water, with which all parts of the metropolis are now abundantly provided. An attempt, it is true, has been made to disinfect the Liffey by means of chloralum; but until some contrivance is adopted to keep the bed of the river covered with water, even at ebb tide, by means of sluice-gates, no permanent effect can be looked for. The "main drainage scheme" provides for the difficulty by altogether removing the *fons et origo malorum* from the river; yet against this, too, there are most plausible objections, some of which were advanced in a letter in your impression of May 27 last.

That the subject of the public health is now attracting unusual attention is evident from the fact that a lengthened correspondence on sanitary topics has for some time past been carried on in the columns of our daily papers. This was originated by Mr. Benson Baker, of London, who was lately sent over by the British Medical Association to report on the working of the Irish poor-law system, and has been continued by Drs. Mapother, Grimshaw, Cameron, and others.

On the whole, however, judging from the weekly returns of births and deaths published under the authority of the Registrar-General, the health of Dublin and its suburbs has of late been satisfactory, and the death-rate of the past few weeks contrasts favourably with that of most of the other large cities in the United Kingdom. The annual ratios of mortality per 1000 inhabitants have been each week since the commencement of July, 21, 17, 17, 20, 13, 16, 19, 21, and 18 respectively, or an average of 18 for the nine weeks. The deaths from diarrhœa in the same weeks have been 1, 0, 2, 4, 2, 4, 7, 10, and 8 respectively. Owing to the coincidence of a high temperature and the fruit season, the prevalence of the last-named complaint has lately assumed considerable proportions, especially among children. Indeed, of the ten deaths from this cause registered in the week ending August 26, nine were those of children under 5 years of age, and the remaining victim was under 10.

It is interesting to note how little Dublin has suffered from the still prevailing epidemic of small-pox. The disease, which was all but unknown in our metropolis during 1870 (no death from it having been registered in the course of that year), began to show itself early in February last in one of the districts of the north side of the city. The first death occurred on March 4, and to September 2 last the total number of fatal cases registered in Dublin and its suburbs amounted to twenty. Of these two took place in the first quarter, nine in the second quarter of the year, and nine in the course of July and August. Five of the patients who died had never been vaccinated; in six others the marks of vaccination were either absent or doubtful; and four had very recently landed from England when they were struck down by the disease.

Latterly, amongst the herds in the neighbourhood of Dublin, epizootic eczema (foot-and-mouth disease) has largely prevailed. It now seems to be decreasing in frequency and severity. A report on the subject was submitted to the Public Health Committee of the Corporation by Dr. Charles Cameron, City Analyst, on the 25th ult. The author alluded to the occurrence of aphthæ in the mouths and on the lips of those who drank the milk of diseased cows; and as a means of obviating such unpleasant consequences, he recommended that for the present all milk used should be previously thoroughly boiled.

GENERAL CORRESPONDENCE.

TREATMENT OF COMPOUND FRACTURE BY COTTON-WOOL.

Letter from Dr. John Murray.

[To the Editor of the Medical Times and Gazette.]

Sir,—In your edition of August 5 you make mention of a "discovery (during the siege of Paris) by M. Alphonse Guérin" in regard to the dressing of amputations with cotton-wool. With reference to the above allow me to mention a case of compound fracture which was treated in a somewhat similar way:—

B. G., a miner, aged 37 years, while working in a shale pit on August 2 last received a severe injury from a fall of stones from the roof, the weight of the fall being calculated at five tons. On examining the patient I found (independent of several bruises) that he had received a compound fracture of the lower leg, with considerable hæmorrhage from a wound about four inches above the internal malleolus. I adjusted the limb in lateral splints, having previously cut a small window in the inner splint, so as to have easy access to the wound. Hæmorrhage being considerable, I applied (having no lint at hand) several compresses of cotton-wool, and secured them with a bandage. The case went on well, and as the patient never experienced a rigor, nor any symptoms of suppuration, the compresses were allowed to remain. On taking down the splints, for the purpose of putting up the limb in a starch bandage, on August 28, I found the wound completely healed.

The patient is now moving about on crutches, and feels no inconvenience in moving his foot. I am, &c.

West Calder, Sept. 6. John Murray, L.R.C.P.&S.E.

USEFUL PRECAUTION FOR TRAVELLING INVALIDS.

Letter from Dr. F. A. Hartsen.

[To the Editor of the Medical Times and Gazette.]

Sir,—From day to day Science and Civilisation continue to discover the means of prolonging life to invalids, and of giving them the blessing even of having a family. This is, I know, in immediate opposition to the repeated warnings of a powerful school. But as Science and Civilisation seem in this matter to be hard of hearing, and even incorrigible, it is best, perhaps, to submit to their obstinacy.

I crave, therefore, a place in your columns for a piece of advice which I hope will be useful to many sufferers in this season. In the present age, the arsenal of therapeutics has been enriched by a very powerful agent—I mean the railway. This agent, however, like many of its kind, has its drawback, which requires correction. Many travellers, those even in good

health, have observed that after a railway journey of some length they felt more particularly tired in the legs, a phenomenon evidently due to the tremulous motion of the ground under their feet. Having suffered considerably from this myself, I tried the experiment of using the well-known air-cushion as a footstool. This answered so satisfactorily that I never travel now without it under my feet, and have not since felt the slightest inconvenience from railway travelling, which formerly fatigued me so dreadfully. In fact, the change is most remarkable. It is scarcely necessary to observe that the air-cushion thus employed would be found equally serviceable in ordinary carriages, and especially for the transport of wounded soldiers, etc. *Prosit* Doctors and invalids!

Pan. I am, &c., F. A. Hartsen.

OBITUARY.

THE LATE DR. HYDE SALTER.

The Profession have already learnt with sorrow, through obituary advertisements, that Dr. Salter died on August 30, at the comparatively early age of 47. For some months his condition had caused serious anxiety to his friends, and for many weeks his case had become hopeless.

Dr. Salter's death is on every account a very lamentable event. He combined so much within himself that was admirable and very estimable—intellectual capacity so far above the average of men, associated with such extreme moral rectitude and kindliness of nature—that since his death but one sentiment, of deep grief, has pervaded the minds of all who knew him, either socially or Professionally.

Dr. Salter was one of a race of Medical men—grandfather, father, uncle, and all three brothers were members of the Profession. He was the second son of the late Mr. Salter, of Poole, a Fellow of the College of Surgeons, who for half a century held a very extensive practice in the south-east parts of Dorsetshire. Dr. Salter was born on November 2, 1823; and within a few weeks of his birth he was attacked with that malady—asthma, following hooping-cough, which entailed such physical suffering on nearly the whole of his life, and indirectly led to his premature death. During boyhood his education was conducted at a private school in his native town; and, though disabled by his asthma nearly half his time, he was always ahead of boys of his own age. Very early in life he displayed a remarkable genius for drawing and painting, and for some time it was contemplated to educate him for the profession of a painter. But he gradually drifted, as did his three brothers, into his father's Profession.

In 1844 he matriculated at the University of London, and entered the General Literature department of King's College, where he greatly distinguished himself; and in 1846 he took a first-class B.A. degree.

He then entered the Medical department of King's College, and at the end of the first session obtained the first of the junior scholarships of the year. He subsequently obtained other prizes.

In 1850 he was appointed Demonstrator of Anatomy to King's College, and, in 1851, Assistant-Physician to King's College Hospital. During that time he took copious and almost *verbatim* notes of Dr. Todd's clinical lectures, which were published, from his manuscript, in the *Medical Gazette*, and afterwards in a collected form; they constituted the first volumes of those "Lectures on Clinical Medicine" which added so much to Dr. Todd's reputation.

In 1851 Dr. Salter took the M.D. degree of the University of London. In 1852 he succeeded Dr. George Johnson as Physician to the Carey-street Dispensary.

At this time he became assistant-editor (that is, working editor) of the "Encyclopædia of Anatomy and Physiology." The whole of the last two volumes of that work passed through his hands; and he himself contributed to the Encyclopædia the articles "Tongue" and "Pancreas." Both these articles contain much original matter, and are beautifully illustrated by Dr. Salter's drawings from his own preparations. That on the tongue is the more important, for the first time giving a complete elucidation of the microscopical arrangement of the intrinsic muscles of the organ. Indeed, it was mainly in consideration of the new anatomical observations in this article that he was elected a Fellow of the Royal Society.

He was also largely concerned in the production of the fourth part of Todd and Bowman's "Physiology." He was, at the time it was written, prosector to the Class of Physiology at King's College; and nearly all the physiological experiments and the microscopical preparations illustrative of the subjects in that part of the work ("Digestion" and "Circulation"), as well as the great majority of the original drawings, were by him.

In 1854 he was appointed Lecturer on Physiology and Physiological Anatomy at the Medical School of Charing-cross Hospital, and held that chair for twelve years, when he was transferred to the chair of Medicine. In 1855 Dr. Salter was made Assistant-Physician to Charing-cross Hospital, and in 1866 he became full Physician.

The College of Physicians made him a Fellow of their body in 1856, and he was that year elected a Fellow of the Royal Society. In 1866 he delivered a course of lectures before the College of Physicians on "Dyspnœa."

Only a few months before Dr. Salter's death his *Alma Mater*, King's College, conferred upon him the honorary degree of Fellow of that College.

As an author, Dr. Salter was very happy in the method of expression, lucid in arrangement, and very graphic in description. His Professional writings have consisted of his well-known work on "Asthma" (now in the second edition), and a large number of essays and clinical lectures published in the *Medical Times and Gazette*, the *Lancet*, and the *British Medical Journal*. The volume on "Asthma" is too highly appreciated to require much remark. It was first written in individual papers published in the Medical journals, each paper afterwards forming a chapter of the volume. It contains a painfully accurate description of his own sufferings, and the methods by which he alleviated them; and it has been pronounced to be the best work on the subject in any language.

The numerous clinical lectures were mostly on chest diseases, though by no means exclusively so. It was Dr. Salter's intention to have collected the whole into a volume; and, indeed, he was engaged in this when his illness commenced.

Clinical teaching was one of his greatest pleasures, and he was eminently successful in this method of instruction. He spoke remarkably well, with great perspicuity and facility; and his beautiful chalk drawings improvised on the black board were a great help to himself and his class. But probably Dr. Salter's most remarkable literary production was the Introductory Address delivered by him at Charing-cross Hospital in October, 1855. Reading it again, after a lapse of sixteen years, we are more than ever struck by its singular beauty, the elevated ethics which pervade it, and the eloquent instruction and advice which it gives to students upon Professional study. It is far too important an essay to pass into that obscurity which is the usual fate of introductory addresses; and, indeed, it should be in the hands of every first year's student.

We have reason to know that Dr. Salter had long been engaged on an interesting literary work altogether extra-Professional—namely, a collection of English metrical psalmody, chronologically arranged from the earliest antiquity till now; and the materials are so near completion that we still hope the work may see the light.

In Professional practice, Dr. Salter went through all the usual stages of anxious up-hill toil which is the experience of every young Physician who achieves distinction by legiti-

mate means; but he accomplished the object of his just ambition. In the last few years his practice became more than ample, and he found himself taking rank with the heads of his Profession. His very success, however, probably contributed in no small degree to his premature death. The work was too much for him.

During the last four years that strangely capricious malady, asthma, which had afflicted him in childhood and adolescence, and then left him for many years, returned with terrible force. His nights were passed bolstered up in bed, leaning on his elbow, and getting such snatches of sleep as the asthmatic spasm would allow, and often under the depressing influence of datura tatula; while by day he was compelled to forego more than half a proper amount of food. A morning meal and a sandwich about noon, and nothing more, or a sleepless night of asthma would be inevitable. Thus heavily weighted, and with a constant sense of physical exhaustion, he went on with his Hospital duties, his lectures, and his private practice, working bravely and never complaining.

Early in the present year those about him saw him weaker and thinner even than usual, and in the middle of April his strength gave way, and he fairly broke down. He now discovered that he was burning at a high temperature, and in continued fever. He asked Sir William Jenner to see him, and he believed at first that the illness was a mild attack of typhoid fever. But time went on; the fever continued, and that view of the case became impossible. The rest may be briefly told. The patient got weaker and thinner day by day. Nothing local, however, declared itself till the end of June, when one morning he expectorated several ounces of purulent material; and after that it was found that there was a cavity in the extreme apex of the right lung, which, at a subsequent date, was discovered to communicate with a circumscribed emphysematous sac at the back of the neck, external to the chest, and beneath the trapezius muscle. Then onwards the case was one of hectic, of declining strength and progressive emaciation, and on August 30 Dr. Salter peacefully expired from sheer exhaustion.

During his whole illness his mind was perfectly calm and composed. He very early came to the conclusion that he should not recover, and on June 30 he wrote to the authorities of Charing-cross Hospital resigning his appointments on that ground. But though he saw the hopes of his life wrecked just as they were realised, and the prize of success for which he had striven—with how much difficulty and labour!—falling from his hands just as he had grasped it, not one word of murmur or even disappointment escaped his lips. He accepted it as the Divine will, and patiently acquiesced.

We may add that Dr. Salter had many tastes and accomplishments out of his Profession. He never relinquished the classical literature of his academic life; and his knowledge of English *belles lettres* was remarkable. He was a charming pianist; and so accurate and retentive was his musical ear, that upon hearing a new opera for the first time, he would carry away, and at once produce upon the piano, all the salient airs of the composition.

But his greatest accomplishment was pencil drawing, which was of the highest order, and enabled him to illustrate with such accuracy his writings on minute anatomy. Many are the friends whom he has thus assisted by his pencil; and, as we have mentioned, the majority of the illustrations of the fourth part of Todd and Bowman's "Physiology" were from Dr. Salter's drawings; and many plates and figures in the *Philosophical Transactions of the Royal Society*, in the *Transactions of the Linnæan Society*, and in those of the Medico-Chirurgical and Pathological Societies, and in the Guy's Reports, as well as in separate works of his friends, owe their existence to his facile pencil, and the ever-kind and willing help he was so ready to render to others.

During his illness Dr. Salter was treated with the greatest kindness and devoted attention by his Professional friends. Sir William Jenner gave him any amount of his valuable time, and, when he left town, Dr. Murchison, Dr. Andrew Clark, and Dr. George Johnson attended him with unsparing trouble. A Surgical question arose, and Sir James Paget and Professor Wood came to his aid. It was a great solace and comfort to him long after he had ceased to expect recovery; and he particularly dwelt upon the "almost parental kindness" (as he himself expressed it) of Sir Thomas Watson, who called on him and sat with him. and comforted some of his weary hours.

The devotion of such men to Dr. Salter's closing life may in some sense be taken as a token of how he was appreciated by those who could best take measure of his deserts, and consequently of what his loss entails. The grief of his patients, poor as well as rich, bears another tribute to his character. But it is left to those who knew him in the inner circle of his daily life to fully estimate the blank his death occasions. To those who had his companionship, who shared his charming conversation, who witnessed the simplicity of his habits and knew the elevated motives and sanctions which prompted all he did—to them his death is a sorrow beyond the expression of words, and one which can only cease with memory itself.

CHARLES DUIGAN, L.K.Q.C.P. & L.R.C.S. Irel.

This well-known and highly respected Physician died on the 31st ult., after a painful illness of some three months' duration. Mr. Duigan, having studied at the Carmichael School of Medicine, became a Licentiate of the Royal College of Surgeons, Ireland, in 1844, and commenced to practise in Dublin. He subsequently settled at Mullingar, co. Westmeath, where in time he entered into the enjoyment of an extensive and lucrative practice. In 1860 he joined the King and Queen's College of Physicians. Mr. Duigan held the appointment of Honorary Surgeon to the Westmeath County Infirmary. At the time of his death, which was caused by Bright's disease, he was about 45 years of age.

WILLIAM EGGINTON THOMPSON, M.R.C.S. AND L.S.A. Lond.,

Died from acute enteric and pulmonary inflammation after an illness of three weeks, at his residence, Shepherd's-bush, London, on the 5th inst., aged 54 years. Mr. Thompson was born in the year 1817, at Stanbrook Hall, in Worcester. He received his Medical education at Guy's and St. Thomas's Hospitals. He spent the earlier years of his Professional life in practice near his home, but during the last four years he was engaged in practice in Shepherd's-bush, where he had gained a good and rapidly increasing connexion. Mr. Thompson was possessed of sound Professional experience and judgment, and his character was that of an amiable, unobtrusive gentleman. As such his loss is severely felt by his late patients and friends.

MEDICAL NEWS.

Apothecaries' Hall. — The following gentlemen passed their Examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, August 31, 1871:—

Blok, Moses, New Burlington-street, W.
Day, Gordon Cleghorn, Bridport.
Jessopp, John, Felix Pelham, Herts.
Turner, Horace, Middlesex Hospital.

Also, on September 7:—

Raines, Charles, Hull.
Rendall, William, Maiden Newton, Dorset.

The following gentlemen passed their first Professional examination on August 31:—

Bradbury, John Batley, Leeds School of Medicine.
Eminson, Luther, University College.
Greaves, Frank, Middlesex Hospital.
Palmer, Montagu H. C., St. Thomas's Hospital.
Ward, Joseph, Queen's College, Birmingham.

Also, on September 7:—

Davies, Ambrose Lewis, St. Mary's Hospital.
Northey, Gilbert William, St. Thomas's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

ELLIS, H. VAUSE, M.B. Aberdeen, and C.M.—Medical Officer to the Western District of the Gower Union.

GREENHOW, Dr. E. H., F.R.S.—Physician to the Middlesex Hospital, in succession to Dr. Murchison, F.R.S.

JEFFERISS, WALTER ROBERT SPENCE, M.B., C.M., L.R.C.P., L.R.C.S.E.—Assistant-Surgeon to the Landore Siemen's Steel Company's new works.

KAYE, W. T., M.R.C.S.—Medical Tutor in the University of Durham College of Medicine, Newcastle-on-Tyne.

MORRIS, H., M.B., M.R.C.S.—Assistant-Surgeon to the Middlesex Hospital, in succession to Mr. H. Arnott, F.R.C.S.

ORWIN, Mr. ARTHUR W.—Resident Obstetrical Officer to the Charing-cross Hospital, London, W.C., *vice* S. S. Noakes, L.R.C.P. Lond., M.R.C.S. Eng., resigned.

PALMER, HENRY DRAKE, M.R.C.S.E., L.S.A.—Medical Officer for District No. 8 of the Lexden and Winstree Union.

TESSIER, WILLIAM HENRY CECIL, L.A.H., Dub., M.D. Univ. St. And., L.S.A., L.R.C.S.E.—Medical Officer to the Biddenden District of the Tenterden Union.

WALKER, SAMUEL, M.R.C.S.E., L.S.A.—Honorary Medical Officer, North Riding Infirmary, Middlesborough-on-Tees.

WEAVER, Mr. THEOPHILUS (duly qualified under the Pharmacy Act, 1868) —Dispenser to the out-door sick poor of the Parish of Birmingham.

WOODWARD, EDWIN, L.R.C.P.E., M.R.C.S.—Inspector of Army Recruits for King's Lynn and District, Medical Inspector of Merchant Seamen for Port of King's Lynn, and Surgeon to the King's Lynn Union House and Infirmary, *vice* T. M. Kendall, F.R.C.S., deceased.

NAVAL AND MILITARY APPOINTMENTS.

ADMIRALTY.—The following appointments have been made :—Dr. Samuel Haslett Browne has been confirmed as an Assistant-Surgeon in her Majesty's Fleet, with seniority of August 15, 1870; Dr. Christopher K. Ord, Staff Surgeon to the *Sultan;* Robert C. Scott, Staff Surgeon to the *Lord Clyde;* Gerard J. Irvine, Assistant-Surgeon to the *Iron Duke*, for disposal; Edward W. Leet, Assistant-Surgeon to the *Sultan;* George E. Farr, Assistant-Surgeon to the *Lord Clyde;* William Brown, Acting Assistant-Surgeon to the *Lord Clyde;* Thomas Harvey, Acting Assistant-Surgeon to the *Sultan.*

ROYAL ARTILLERY.—Staff Assistant-Surgeon William Jobson, M.D., to be Assistant-Surgeon, *vice* Robert Lewer, promoted.

1ST FOOT.—Staff Assistant-Surgeon Henry Comerford, M.D., to be Assistant-Surgeon, *vice* James Davis Gunning, appointed to the Staff.

6TH FOOT.—Staff Surgeon Eugene Francis O'Leary, to be Surgeon, *vice* Alexander Dudgeon Gulland, M.D., appointed to the Staff.

54TH FOOT.—Staff Assistant-Surgeon James Hector, M.B., to be Assistant-Surgeon.

MEDICAL DEPARTMENT.—Surgeon Alexander Dudgeon Gulland, M.D., from 6th Foot, to be Staff Surgeon, *vice* Eugene Francis O'Leary, appointed to the 6th Foot; Staff Surgeon Robert Lewer, from the Royal Artillery, to be Staff Surgeon, *vice* Fredcrick Tydd Abbott, deceased; Staff Assistant-Surgeon Alexander Neill, from half-pay, to be Staff Assistant-Surgeon, *vice* William Jobson, M.D., appointed to the Royal Artillery; Assistant-Surgeon James Davis Gunning, from 1st Foot, to be Staff Assistant-Surgeon, *vice* Henry Comerford, M.D., appointed to the 1st Foot; Staff Assistant-Surgeon Charles Backhouse has been permitted to resign his commission.

BREVET.—Deputy Inspector-General of Hospitals William Home, M.D., retired on half-pay, to have the honorary rank of Inspector-General of Hospitals.

BIRTHS.

ADAM.—On August 31, at Overton House, Avondale, near Hamilton, Scotland, the wife of William Hogarth Adam, Surgeon Royal Navy (H.M.S. *Blanche*, Australia), of a son.

ARNOLD.—On September 6, the wife of G. J. Arnold, M.D., 17, Hardwicke-place, Commercial-road, of a daughter.

BLATSON.—On August 30, at Netley, Southampton, the wife of Inspector-General Dr. Blatson, C.B., Honorary Physician to the Queen, of a daughter.

BLOXAM.—On September 5, at 21, Mount-street, Grosvenor-square, the wife of Wm. Bloxam, M.D., of a son.

CATES.—On September 2, at No. 4, Sunderland-terrace, Westbourne-park, the wife of William Edward Cates, Civil Surgeon, Dhurwar, Bombay, of a son.

COLTART.—On August 29, at Beverley, Yorkshire, the wife of W. Wilson Coltart, L.R.C.P. Lond., of a son.

GARMAN.—On September 5, at Kent House, Bow-road, E., the wife of H. V. Garman, Surgeon, of a daughter.

GWYNN.—On September 10, at 5, Belgrave-terrace, Upper Holloway, the wife of Edmund Gwynn, M.D., of a daughter.

HAMILTON.—On September 7, at Magherabuoy, Portrush, county Antrim, the wife of Robert Hamilton, F.R.C.S., Prince's-road, Liverpool, of a son.

LLOYD.—On September 9, at the Royal Naval Hospital, Haslar, the wife of Dr. William H. Lloyd, R.N., of a daughter.

LOAD.—On September 2, at Portrush, county Antrim, the wife of Surgeon-Major R. G. Lord, M.D., Bombay Army, Civil Surgeon Poona, of a son.

LYDALL.—On September 9, at 19, Mecklenburgh-square, the wife of Dr. W. H. Lydall, of a son.

MACGOWAN.—On September 9, at The Park, Kingswood-hill, near Bristol, the wife of Dr. Macgowan, late 52nd Foot, of a son.

PRINGLE.—On August 9, at Whythank, Mussoorie, N.W.P. India, the wife of Surgeon R. Pringle, M.D., H.M.'s Bengal Army, of a daughter.

ROCH.—On August 2, at Chuckrata, Upper Provinces, Bengal, the wife of Dr. Roch, H.M.'s 55th Regiment, of a son.

MARRIAGES.

BROWN—HUTCHINSON.—On September 6, at St. Stephen's, Norwich, David Brown, Esq., solicitor, Maybole, to Jane Emily, third daughter of Charles Hutchinson, M.D., Norwich.

CRANE—PECK.—On August 3, at St. John's Church, Meerut, India, Edward Joseph Crane, Assistant-Surgeon Royal Artillery, to Emma S. O. (Temmie), youngest daughter of the late Leonard William Peck, M.R.C.S., and step-daughter of the late Major Richard Thompson, 51st (King's Own) Light Infantry.

ELLIS—THOMSON.—On September 6, at Ramsden-street Chapel, Huddersfield, Charles W. Ellis, second son of the late Edwin Ellis, M.R.C.S., of Tulse-hill, Brixton, to Jane, eldest daughter of William Thomson, Esq., of New House, Huddersfield.

GILMAN—AINSLIE.—On September 5, at Norham parish church, William McDonald, fifth son of Ellis J. Gilman, Esq., of The Boltons, London, to Helen Elizabeth, widow of the late T. A. Ainslie, M.D., of Tien-tsin, China, and eldest daughter of the late John Wilson, Esq., of Bayview, Berwick-on-Tweed.

HENDERSON—BROCKLEHURST.—On August 30, at St. Mary's Church, Grassendale, near Liverpool, Colin Henderson, M.A., L.R.C.P., L.R.C.S., of Chester, to Mary Jane, only daughter of the late George Brocklehurst, Esq., of Liverpool.

PALMER—ARMFIELD.—On September 7, at St. George's, Hanover-square, Dr. Frederick White Palmer, Ormonde House, Old Kent-road, to Elizabeth Amy, only daughter of Fred. Armfield, Esq., of South Bermondsey.

RUSSELL—MANTELL.—On August 29, at St. Mark's Church, Surbiton, Surrey, William Campbell Russell, Esq., of Chislehurst, Kent, third son of the late John James Russell, Esq., of South Lambeth, to Rosetta, daughter of the late George Mantell, M.D., of Farringdon, Berks.

SEXTON—WALTON.—On August 29, at Brighton, Edward Sexton, M.D., Surgeon Bombay Medical Establishment, to Mary, eldest daughter of the late Rev. W. W. Walton, rector of Waddesdon, Bucks.

SLADE—CHEESMAN.—On September 2, at St. Pancras Church, Robert Slade, Surgeon, of Puddletown, Dorset, to Eliza, second daughter of the late John Cheesman, Esq., of Brighton.

SMITH—WEBB.—On September 6, at St. James's Church, Wollaston, Stourbridge, Samuel Wagstaffe Smith, M.D., Pershore, second surviving son of Benjamin Smith, Esq., Tan-y-Graig, Carnarvon, to Sarah Elizabeth, eldest daughter of the late Thomas Webb, Esq., J.P., Stourbridge.

TAYLOR—PARSON.—On September 5, at the parish church of Stoke-next-Guildford, the Rev. George Taylor, senior curate of Holy Trinity and St. Mary's, Guildford, to Elizabeth Soaper, youngest surviving daughter of the late Charles Alexander Parson, Surgeon, Godalming, and of Mrs. Parson, The Firs, Stoke-next-Guildford.

WHIDBORNE—GERVIS.—On September 6, at St. Sidwell's, Exeter, George Herbert, eldest son of George Ferris Whidborne, M.D., of Crediton, Devon, to Alice Burne, youngest daughter of the late Henry Gervis, Esq., solicitor, of Thoverton, Devon.

WOOD—INGRAM.—On August 9, at St. John's Church, Wakefield, William Wood, M.D., of Vincent House, Wakefield, to Christian Susanna, eldest daughter of the late Henry Ingram, Esq., of Wakefield.

WURBLE—POCOCK.—On September 7, at St. John's, Angell-town, Brixton, Frederick John, eldest son of F. Wurble, Surgeon, of East Malling, Kent, to Annie Florence, eldest daughter of William Pocock, M.D., of Brixton.

YOUNG—RAYNER.—On September 12, at St. Augustine's, Highbury New-park, Thomas Ernley Young, B.A., to Harriett Maria, second daughter of John Rayner, M.D., of Highbury New-park.

DEATHS.

BUCHANAN, ROBERT, M.D., of Knoxland, Dumbarton, on September 10, in the 78th year of his age.

CUTCLIFFE, CHARLES ELWORTHY, Surgeon, at Silverton, Devon, on September 10, aged 59.

DUNCAN, JANE EMILY, wife of Professor P. Martin Duncan, F.R.S., M.B., etc., at Lee, Kent, on September 2, aged 42.

DYMOCK, T. GRAHAM W., of the Middle Temple, son of Dr. Archibald Dymock, M.R.C.P.L., at Louth, Lincolnshire, on September 11, aged 19.

GALLAGHER, ARCHIBALD P., second son of Dr. Gallagher, of Lima, Peru, at Woodside, Esher, the residence of his aunt, on August 31, aged 25.

HEAD, ELIZABETH UPTON, wife of R. L. B. Head, Surgeon R.N., of Wadebridge, Cornwall, and daughter of Thomas Cleave, Esq., of Trevanion, Cornwall, in London, on August 27, aged 36.

HUNTER, CHRISTOPHER, M.D., the last remaining son of the late Rev. Christopher Hunter, M.A., formerly rector of Gayton, Northamptonshire, at Ambarrow House, Sandhurst, Berks, on September 6, in his 90th year.

KNOWLES, EDMUND YALDEN, M.R.C.S., and L.S.A. (Guy's), Medical Officer North District, Hartney Witney School, and several other appointments, and Practitioner in the town of Farnham for upwards of thirty years, at Farnham, on August 26, aged 58.

LILLIE, MARGARET, the beloved wife of Dr. James Lillie, of Holloway, on September 4.

PAUL, ELIZABETH CONSTANCE, the infant daughter of John Lister Paul, M.D., Surgeon to the General Hospital, Madras, at Lausanne, Switzerland, on September 8.

SALTER, HENRY HYDE, B.A., M.D., F.R.S., Fellow of the Royal College of Physicians, lately Senior Physician to, and Lecturer on Medicine at, Charing-cross Hospital, at 14, Harley-street, Cavendish-square, on August 30, aged 47.

SHEPPARD, MARGARET EDITH, only daughter of Edgar Sheppard, M.D., of Colney-hatch, at 12, Belsize-square, the residence of her aunt, on September 4, aged 23.

THOMPSON, WILLIAM EGGINTON, Surgeon, at his residence, 6, Boscombe-terrace, Shepherd's-bush, on August 5, aged 54.

VAUX, JULIA DESBOROUGH, second daughter of the Calvert Vaux, Surgeon, London, at 3, Canterbury-road, Croydon, on September 1, aged 41.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

Dover Hospital and Dispensary.—House-Surgeon; must be duly qualified and registered. Applications and testimonials to the Hon. Sec., Mr. E. Elvin, jun., 13, Castle-street, Dover, on or before Sept. 19.

Gainsborough Dispensary.—House-Surgeon. Must be duly qualified and registered. Applications and testimonials to Mr. F. C. Spouncer, on or before October 4. Election on the 19th.

Islington, Vestry of St. Mary.—Medical Officer of Health and Analyst. Candidates must be duly qualified and registered. Applications and testimonials to Mr. John Layton, Vestry Clerk, on or before September 18. Further particulars may be obtained at the Vestry Office.

Kent and Canterbury Hospital.—House-Surgeon and Dispenser. Must be duly qualified and registered under the Medical Act, 1858. Applications and testimonials to the Secretary, at the Hospital, on or before September 29. Personal attendance is desirable. Further particulars of the Secretary.

Liverpool Dispensaries.—Resident House-Surgeon. Must be duly qualified. Applications and testimonials to the Secretary, on or before September 27. Election the following day at 2 o'clock p.m.

Manchester Royal Infirmary.—Physician's Assistant. Must possess both Medical and Surgical qualifications. Applications and testimonials to the Chairman of the Weekly Board, on or before September 23.

Middlesex Hospital.—Assistant-Surgeon. Candidates to send their applications and testimonials to Mr. Henry N. Custance, on or before September 26. Election on October 3.

Norfolk and Norwich Hospital, Norwich.—House-Surgeon; must have both Medical and Surgical qualifications. Applications and testimonials to Mr. T. R. Tallack, on or before September 8. Election on September 16.

Parish of Unst, Shetland.—Medical Officer. Applications and testimonials to Mr. White, Inspector of the Poor.

Queen Adelaide's Dispensary, Pollard-row, Bethnal-green.—House-Surgeon. Must be a member of one of the Colleges of Surgeons of London, Edinburgh, or Dublin, and L.S.A. Applications and testimonials to the Rev. T. Peckston, 260, Cambridge-road, London, E., on or before October 3. Election on October 6.

Reeth Union.—Medical Officer for the Muker District. Candidates must be duly qualified and registered. Applications and testimonials to Mr. James R. Tomlin, Clerk, Richmond, Yorks, on or before September 22.

St. Saviour's Union, Surrey.—District Medical Officer for the Third District. Candidates must be duly qualified and registered. Applications and testimonials to Mr. James J. Blake, Union Offices, John-street West, Blackfriars-road, S.E., on or before September 21. Election on the same day.

Stockport Infirmary.—House-Surgeon. Must have both Medical and Surgical qualifications. Applications and testimonials to the Hon. Sec., on or before September 27. Election on October 2.

Towcester Union.—Medical Officer for the Workhouse and the Towcester District. Candidates must be properly qualified and registered. Applications and testimonials to Mr. W. Whitton, Clerk, on or before September 19.

Western General Dispensary, Marylebone-road, W.—Resident Surgeon and Apothecary. Must be M.R.C.S. Eng., Edin., or Dub., and L.S.A., and be registered. Candidates to attend a meeting of the Board of Directors on September 25, at 8 o'clock p.m. Applications and testimonials to be forwarded to the Secretary, on or before September 21.

Worksop Dispensary.—Resident Surgeon. Must have both Medical and Surgical qualifications. Applications and testimonials to the Committee, on or before September 23. The duties commence November 1.

UNION AND PAROCHIAL MEDICAL SERVICE.

⁂ The area of each district is stated in acres. The population is computed according to the census of 1861.

RESIGNATIONS.

Merthyr Tydfil Union.—Mr. Walter Jefferiss has resigned the Penderyn and Rhyos District; salary £20.

Monmouth Union.—Dr. Andrews has resigned the Rockfield District; area 17,870; population 2244; salary £31 per annum.

Glanford Brigg Union.—Dr. Wm. Terrewest has resigned the Messingham District; area 12,508; population 2970; salary £38 per annum.

King's Lynn Union.—The office of Medical Officer of the Workhouse is vacant; salary £60 per annum.

Oakham Union.—Mr. T. B. Scott has resigned the Empingham District; area 14,728; population 2536; salary £30 per annum.

Portsea Island Union.—Mr. S. Alford has resigned the Southsea District; salary £70 per annum.

Stow Union.—Dr. Pearson has resigned the Fifth District; area 11,336; population 3493; salary £70 per annum.

Tenterden Union.—Mr. L. R. H. Rouse has resigned the Holden District; area 3700; population 653; salary £15 15s. per annum.

West Derby Union.—The Workhouse for Sick Poor is vacant; salary £120 per annum.

Wimborne and Cranborne Union.—Mr. Wm. Druitt has resigned the Second District; salary £75 per annum. Mr. Druitt has also resigned the Workhouse; salary £20 per annum.

APPOINTMENTS.

Ampthill Union.—Arthur Evershed, L.R.C.P., M.R.C.S. Eng., L.S.A., to the Maulden District.

Barnsley Union.—Cleophas W. S. Seaborne, M.D. Univ. St. And., L.F.P. and S. Glasg., to the Wombwell District.

Bishop Stortford Union.—Eustace Arthur Brickwell, M.R.C.S.E., L.S.A., to the Sawbridgeworth District.

Brixworth Union.—Richard L. Wilson, M.R.C.S.E., L.S.A., to the Second District.

Henley Union.—James C. Pritchard, M.R.C.S.E., L.S.A., L.R.C.P. Edin., to the Nettlebed District.

Kington Union.—Henry Horton, M.R.C.S. Eng., L.S.A., to the Eardisley District.

Inspector-General of Hospitals R. Dowse has been granted a reward for distinguished service.

The Corporation of Leicester has decided to erect a fever Hospital in that town.

Mr. R. B. Stewart, of Ascoy Hall, has sent £1000 to the local authorities of Rothesay, to build a Hospital, in view of an epidemic breaking out.

Dr. Henry Liddell, retired Deputy Inspector of Hospitals, has been awarded the Greenwich Hospital pension of £50 for Staff Surgeons.

It is announced that in Czimochow, a village of East Prussia — containing only 479 inhabitants — seventy-nine persons have been attacked with cholera, and forty-six have died.

Small-pox has broken out in a virulent form at Sharpness-point, where vast works in connexion with the Gloucester and Berkley Canal are in progress.

The Lambeth Guardians have awarded Mr. Capel, the Vaccination Inspector, a gratuity of £50, in consideration of services rendered by him during the small-pox epidemic.

Dr. Frankland reports that all the waters delivered by the Companies, during the past month, were clear and transparent when delivered from the main.

A monthly Medical magazine, in the Bengali language, has been published at Chinsurah. It will be of great service to the numerous class of Medical assistants now scattered throughout Bengal.

Mr. Goodson has been appointed Medical Officer of Health for the Eastern Division, and Mr. Oakman for the Western Division, of the Wandsworth District Board of Works.

Professor Marshall's scientific examination of the late Mr. Grote's head has revealed the fact that the brain was remarkably small; but it is said to be rich in convolutions.

A Miss Patman has taken the Doctorate degree of the Paris Faculty.

Small-pox is very prevalent in several towns in the West Riding of Yorkshire.

The *Dreadnought* Hospital ship will be closed as a convalescent Hospital for small-pox patients on the 14th proximo.

Dr. Archer, a homœopathic practitioner, has been elected Medical Officer to the Southampton Workhouse by the Board of Guardians.

The fifth congress of the Italian Medical Society will be held in Rome in October.

The British Hospital for Diseases of the Skin has received a second donation of £1000 from "V. S. J."

Verdant.—The *Pastoral Times* of Australia has to its honour found out that brandy is adulterated with alcohol.

Mr. J. Wickham Barnes is sorry to inform the members of the Poor-law Medical Officers' Association that their President, Dr. Rogers, has been obliged to relinquish for a time all duties connected with the Association and his own practice, on account of temporary indisposition.

The Medical Service of India.—For the future there will be a military and civil branch of the Medical Service in India. Army Surgeons must elect in which branch they will serve. The military will be placed under Inspectors-General of the Royal Army; civil Surgeons will have a chief appointed by the Indian Government.

A lifeboat called *The Dr. Hatton* has been given, with its equipments and a boathouse (at a cost of £680), to New Romney, by the widow of Dr. John Hattou, formerly of Oxford-road, Manchester. It was Dr. Hatton's wish that his widow should make provision for a lifeboat by will; but she has chosen to carry out his intention at once.

Dr. William MacEwen, having been appointed Casualty Surgeon for the Central Police District, Glasgow, has been presented with a complimentary address, a signet ring, and other articles of jewellery, by the officials of the Belvidere Fever Hospital, London-road, Glasgow, as a mark of their appreciation of his services there.

The New Newspaper Law in France.—The *Union Médicale* of September 2 states that it has just deposited at the Ministry of Finance the sum of 18,000 francs (£720) as security-money required by the new law to be paid by all periodicals appearing more than once a week. It falls rather hard upon our contemporary and upon the *Gazette des Hôpitaux* to have to pay this sum for the circumstance of being published three times a week, while their rivals, the *Gazettes Médicale* and *Hebdomadaire*, treating precisely of the same matters, are exempt.

More than 50 per cent. of the deaths in Manchester and Salford last week were of infants under 1 year of age. This great proportion of infantile mortality is from the increase of diarrhœa.

Mr. Clements, the Medical Officer, reported to the Chorlton Board of Guardians that the small-pox was rapidly decreasing. The cases were twenty-three. Since the 29th ult. there had been only one case, and eight had been discharged. Of those in the Hospital three were only active cases.

At the annual general meeting of the Association of Medical Officers of Health, held on July 19 last, the following officers were elected for the year ensuing:—*President:* Dr. Robert Druitt. *Vice-Presidents:* Dr. W. T. G. Woodforde, Dr. A. W. Barclay, Mr. F. J. Burgo. *Treasurer:* Dr. C. J. B. Aldis. *Secretaries:* Dr. J. N. Vinen, Dr. T. Stevenson. *General Purposes Committee:* Dr. E. Ballard, Dr. H. Letheby, Dr. W. Hardwicke, Dr. J. W. Tripe, Mr. J. Liddle, Mr. C. F. J. Lord, Dr. H. G. Sutton, Dr. H. Bateson.

Medico-Chirurgical Society of Glasgow.—At the meeting of this Society, held on Friday, September 1, in the Hall of the Faculty of Physicians and Surgeons, the following gentlemen were elected office-bearers for the ensuing session, viz.:—*President:* Dr. James Adams. *Vice-Presidents:* Dr. James Stewart; Dr. Geo. Buchanan. *Council:* Mr. Torrance, Airdrie; Dr. H. Thomson; Dr. James Gray; Mr. Robert Grieve; Mr. J. Pollock, Mearns; Dr. R. Renfrew; Dr. George Miller; Dr. T. D. Buchanan. *Secretaries:* Dr. Robert Perry; Dr. Alex. Robertson. *Treasurer:* Dr. H. R. Howatt.

Mortality in the Eight Principal Towns of Scotland.—A comparison of the deaths registered in the eight principal towns shows that during August the annual rate of mortality was 16 deaths per 1000 persons in Perth, 17 in Aberdeen, 23 in Greenock, 25 in Dundee, 26 in Edinburgh and in Paisley, 27 in Leith, and 32 in Glasgow. Of the 2450 deaths, 1233 were of males, and 1217 of females. Of these 1156, or 47 per cent., were of children under 5 years of age. In Perth, 25 per cent. of the persons who died were under 5 years of age; in Aberdeen, 33; in Paisley, 40; in Edinburgh, 41; in Greenock, 43; in Glasgow, 50; in Dundee, 53; and in Leith, 58 per cent.

The Macclesfield Infirmary.—This extensive building stands unoccupied in the midst of its unfinished grounds. By a bequest of the late Mr. Tunnicliff, £30,000 was set aside as an endowment for an infirmary at Macclesfield, the conditions being, that within ten years of the death of Mrs. Tunnicliff a suitable building should be erected, and presented free of debt, for the benefit of the endowment. Mrs. Tunnicliff died in 1865, and only four years, therefore, remain within which to take advantage of the testator's liberality. Nearly £9000 is required to set the building in full operation. It is urged that it will be a great mistake if this important institution be much longer allowed to remain closed.

James Douglas Murray.—We regret to record the death, under very melancholy circumstances, of James Douglas Murray, Surgeon, of 26, Hamilton-square, Birkenhead, aged 26. The deceased, according to his usual custom, retired to his bedroom to rest a little on Tuesday afternoon. Patients having arrived, Mrs. Craig, a lady residing in the house, went to call him, but could not arouse him. A Physician was immediately sent for, who at once pronounced him dead. Beside him was a bottle of chloroform, and a bottle in which prussic acid had been. A post-mortem examination was made, which left no doubt that he had partaken of poison. He was the son of Dr. Andrew Murray, of the Royal Navy, and now attached to her Majesty's ship *Eagle*. He succeeded the late Dr. Craig two years ago, and had since been carrying on a successful practice. The motive of the deed appears inexplicable.

Iodised Cotton.—M. Méhu, Pharmacien at the Necker Hospital, describes his mode of impregnating cotton with iodine. The iodine is first reduced to an extremely fine powder by trituration in a porcelain mortar, its pulverisation being greatly facilitated by adding, from time to time, some drops of ether. Very fine and quite dry carded cotton should be chosen, its weight being ten times greater than that of the iodine. This is introduced in small portions, with the proportion of iodine, into a flask capable of containing a litre, and having a wide mouth. Into such a flask, from twenty to twenty-five grammes of the cotton are sufficient to be introduced, in order to secure its thorough permeation by the iodine. The flask is placed in a sand-bath, only slightly corked, until the heated air has escaped, when it should be closely stopped. The iodine disengaged now thoroughly permeates the cotton, and when this has attained the colour of roasted coffee the process is finished. As much as 10 per cent. of iodine may be thus combined, but for all ordinary purposes 5 per cent. suffices. The cotton may be prepared, also, in a boiling-water bath. To preserve it for use, it must be kept in a bottle stopped with emery or by a cork which has been long kept in melted paraffine. This cotton has been found very useful applied to glandular swellings of the neck, or wherever the local use of iodine is indicated—placing it round the neck, for example, and securing it by a bandage. It requires to be renewed every two or three days.—*Bullet. de Thérapeutique and Presse Belge*, August 27.

Composition and Quality of the Metropolitan Waters in August, 1871.—The following are Dr. Letheby's returns to the Association of Medical Officers of Health:—

Names of Water Companies.	Total Solid Matter per Gallon.	Oxygen required by Organic Matter, &c.	Nitrogen.		Hardness.	
			As Nitrates &c.	As Ammonia.	Before Boiling.	After Boiling.
Thames Water Companies.	Grains.	Grains.	Grains.	Grains.	Degs.	Degs.
Grand Junction .	18·47	0·109	0·125	0·002	14·0	3·5
West Middlesex .	17·79	0·044	0·091	0·001	13·9	3·3
Southwark & Vauxhall . . .	18·03	0·096	0·091	0·002	13·8	3·3
Chelsea . . .	18·23	0·121	0·142	0·002	14·0	3·3
Lambeth . . .	18·27	0·091	0·125	0·001	14·0	3·3
Other Companies.						
Kent . . .	27·93	0·001	0·213	0·000	20·0	5·6
New River . .	16·83	0·030	0·110	0·000	13·4	3·0
East London . .	17·93	0·057	0·136	0·000	13·8	3·0

Note.—The amount of oxygen required to oxidise the organic matter, nitrites, etc., is determined by a standard solution of permanganate of potash acting for three hours; and in the case of the metropolitan waters the quantity of organic matter is about eight times the amount of oxygen required by it.

The water was found to be clear and nearly colourless in all cases but the following, when it was slightly turbid—viz., in the case of the Chelsea and the Grand Junction Companies.

The average quantity of water supplied daily to the metropolis during the preceding month was, according to the returns of the Water Companies to the Association of Medical Officers of Health, 112,107,697 gallons; and the number of houses supplied was 489,331. This is at the rate of 34·4 gals. per head of the population daily.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

A Subscriber.—The F.R.C.S. is the best.

A King's College Man.—Mr. Henry Smith is Surgeon to King's College Hospital with care of out-patients; not Assistant-Surgeon.

He fed Fevers.—In the interesting Autobiographic Recollections of George Pryme, Esq., M.A., M.P., etc., he states that in the winter of 1788 he was attacked by a severe fever, and was attended by Dr. Storer, of Nottingham, the most eminent Physician in that part of the country. After prescribing every medicine he could think of as suitable to the case, he called one evening, declining to see and prescribe for the patient after that, as giving more medicine was only harassing him. He was told that the patient had repeatedly asked for brandy, whereupon some was mixed with water in a wineglass and eagerly drank, when he asked for more. The next forenoon the Doctor called to inquire if his patient was still alive, and was told that he had had a good night, and was much better. From that time Pryme steadily recovered.

Erratum.—Through a mistake of the printer, Dr. Richardson's diabetic attack (*see* Review of Richardson on Diabetes) was made to be of *two* years' standing only, instead of *ten*.

The Treatment of Porrigo Decalvans.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I should feel much obliged if some of your readers would inform me of a successful mode of treating porrigo decalvans. I have used tinct. iodi. (much stronger than the Pharmacopœial strength) and several other local applications, but without any good result. I am, &c.,

Newent, Gloucester, September 9. A Young Practitioner.

"Dreams."

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Perhaps the following lines may suggest a better remedy for dreaming than any drug in the B.P.:—

"Toil and be glad! let industry inspire
Into your quicken'd limbs her buoyant breath."

"——The toiling swain,
By far the happiest of the sons of men!
Delves in *his garden*."

"Good Lord! how keen are his sensations all!
At one deep draught of sleep he takes the night."

"Health is the vital principle of bliss,
And *exercise* of health."

I am, &c., J. G.

Beta.—The salaries range, we believe, from five to ten guineas a month; but in all the Lines there are variations in the amounts of payment.

Nemo.—Radcliffe left to St. Bartholomew's Hospital, for ever, the yearly sum of £500 towards mending their diet, and the further yearly sum of £100 for buying of linen.

A Reader.—Linacre was buried in St. Paul's Cathedral, where a monument was afterwards erected to his memory by his admirer and successor in fame, Dr. Caius. He died October 20, 1524.

Gladesville Hospital for the Insane, Sydney.—Dr. F. Norton Manning, in his report on this Hospital for 1870, says—

"This institution is within such a short distance of the Sydney Observatory that I have not thought it necessary to attempt the meteorological observations which are made in some institutions for the insane in Great Britain, but I have carried on through some months a series of observations as to the degree of excitement existing among the patients and the frequency of epileptic paroxysms. These observations were commenced owing to a strong belief, which the results verify, that periods of excitement among the insane are coincident with, if not produced by, meteorological and especially electrical changes. It was not until I had continued these observations for some time that I became aware that the Observatory possessed no electrometer which the Government Astronomer considered sufficiently accurate to warrant scientific tabulation of the result of the observations, and that the occurrence of lightning was the only electrical particular recorded in the Observatory returns. Notwithstanding the want of accurate records, it is interesting to place side by side observations made concurrently at the Observatory and at this institution, and to see how closely periods of excitement among the insane and increased frequency of epileptic fits correspond with periods of electrical disturbance of the atmosphere. A series of records of this character, conducted by means of accurate instruments, on the one hand, and painstaking observation, on the other, would, I believe, be of the greatest interest to both physiologists and Physicians, and might serve to assist in settling some of the at present unsolved problems, both of normal and abnormal cerebral action."

Cambridge University Medical School.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Observing with surprise in your last week's number, which professes to give some account of the various Medical Schools of the United Kingdom, that no mention is made of the Cambridge University Medical School, I beg to enclose the annual programme issued by the Regius Professor of Physic, from which you will see that regular courses of lectures are delivered by the several Professors, Demonstrators, and Teachers on Zoology and Comparative Anatomy, Anatomy and Physiology, Practical Anatomy, Practical Histology, Heat, Chemistry, Practical Chemistry, Pharmacology, and Pathology; that there is practical teaching in the dissecting-room, regular clinical teaching and clinical lectures at the Hospital, and clinical instruction at the neighbouring County Asylum; that there are museums of Anatomy and Materia Medica, laboratories, etc.; and that the attendance is recognised by the College of Surgeons as well as by the University. I may add that the number of Medical students entering annually at the School has in the last few years been not less than twenty-five. I am, &c., Cantab.

September 11.

*** The account we published was submitted to the Medical authorities of the University, and returned with approval.

Bibliopole.—The Library and Museum of the Royal College of Surgeons will be re-opened on Monday, October 2.

Effects of Tobacco-smoking.—So much has been written against the use as well as the abuse of smoking tobacco, that it is refreshing to find the subject temperately and carefully treated. In the September number of the *Food Journal*, Dr. E. B. Gray thus sums up a sensible and practical chapter on "The Medical Aspect of Tobacco-smoking":—

"Tobacco should be used as supplementary to food, not as a substitute for it. The season, therefore, for healthy smoking is after a meal. Tobacco should not be taken on an empty stomach (unless to stave off hunger) any more than alcohol. Smoking merely to kill time, or to colour a pipe (!) is a childish abuse of tobacco. Against moderate smoking in a healthy person who enjoys it, not a single argument of any weight has yet been advanced. Perhaps the most plausible of them is this: that every smoker daily imbibes a small quantity of tobacco-oil and nicotine; and as these substances taken by themselves in the pure concentrated state and in large doses are highly poisonous, therefore every habitual smoker is slowly poisoning himself. Just as reasonable is it to condemn all alcoholic drinks, such as wine, beer, etc., as pernicious, because a draught of pure alcohol will nearly or quite kill a man; or to condemn tea and coffee as dangerous drinks, because their active principles, theine and caffeine, taken alone and in large doses, are poisons. One of the best-established truths in Medical science is that the same physiological agent, according to the dose given, may produce effects which differ not merely in degree but in *kind*. The idea of small doses of tobacco or other such agent slowly accumulating in the system, and at length producing the effect of a single large dose, is *à priori* absurd, and also contradicted by experience.

"So much, and often so much nonsense, is prated about the evils of tobacco, that its virtues rarely get a hearing, and yet the latter are many and great. To quiet nervous unrest, to soothe a ruffled temper, to favour calm and impartial thought, to steady and clear (*not* to cloud) a confused overworked brain, to counteract the effects of physical exhaustion—these are just the things which tobacco does; and if it can effect these ends safely and pleasantly, who shall deny it a place among God's good gifts to men?"

The Treatment of Cholera by Ox-gall.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I regret extremely you stated the treatment I adopted for cholera simply under the head of ox-gall, calomel, opium, and stimulants. Any person reading it would think that the fel bovis had not much to do with the rapid recovery, and that the calomel was the chief agent. The patient took fel bov. gr. xxiv., calomel only gr. xii., opium gr. ix., and the stimulants were spt. ammon. arom. and spt. æther arom. every two hours during the six days. Brandy and wine were strictly prohibited.

September 5. I am, &c., An Old Pupil of John Abernethy.

Dr. B., Chelmsford.—The registration at the College of Surgeons will commence on Monday, October 2. Professional studies, however, cannot be recognised until your son has passed the required Preliminary Examination.

M. A. Oxon.—Dr. Glynn died in 1800. He was a Fellow of King's College, and an eminent Physician at Cambridge. He was buried in the chapel by torchlight, as was also Dr. Farmer, of Emmanuel College, in 1797; these were the last. He usually wore a scarlet cloak and three-cornered hat, and carried a gold-headed cane. He also used pattens in rainy weather.

Vaccination in St. Pancras.—In his report for 1870, Dr. T. Stevenson, the Medical Officer of Health, says—

"During the twelve months ending Michaelmas, 1870, the number of children under 1 year of age, successfully vaccinated by the Public Vaccinators, was 2193, as compared with 2497 in 1869, and 2871 in 1868. Such a lamentable falling off in the number of vaccinations speaks volumes as to the laxity of the administration of the law. 179 cases of small-pox were reported, and twenty-one deaths occurred in the parish from the disease. I am unable to supply the omission of the number of deaths in Hospitals, for the information has been refused me at the Highgate Small-pox Hospital. I have applied to the Poor-law officers for information as to the number of deaths among paupers from small-pox in Hospitals, but they are unable to supply me with the requisite information, no record being kept at the Guardians' Office of the results of the disease in the cases sent into Hospital."

Hospital Quackery.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I find there may be "questionable practice" indulged in by Hospitals and their authorities as well as by private Practitioners, either legalised or unqualified. The Queen's Hospital here is an instance. Its advertisements now occupying the columns of the local press are headed, "Queen's Hospital, incorporated as a Clinical Hospital by special Act of Parliament," and are evidently for the purpose of making a deluded public think that the Queen's is something that the General Hospital is not. The authorities of the latter evidently think so, for they are heading their advertisements "Clinical Hospital" too, but they have no claim to the Act of Parliament. Now, for any Hospital to be a clinical Hospital there is no need of any Act of Parliament, and I therefore declaim against the action of the Queen's Hospital authorities as a great mistake.

They also suspend, outside the building, a large board with the names of their staff emblazoned thereon, and it is proposed to add their private addresses. I am, &c., Phlegmon.

Birmingham, September 1.

Infantile Eczema.

Sir,—Pity the sorrows of parents whose child suffers from eczema: the disgusting appearance, the constant cry, the restless nights, the inclination to tear off the oozing crusts from the inflamed face or the heated scalp all drive the mother, the nurse, and the wretched Practitioner all but frantic. A remedy doing good for a time loses effect. One lady suggests—Try Erasmus Wilson, Startin, or Tilbury Fox; another believes in homœopathy; a third insists on a sea-voyage. The clergyman appearing on the scene produces a tattered prescription, given to him in the Underground Railway by a Dublin celebrity. And last, but not least, the retired Physician thus attempts his share of Job's comfort—"My dear madam, the disease is a safety-valve; to check it might be fatal."

Supposing a wet-nurse is procured, she may be of invaluable service, perhaps the contrary. Of course, a girl without the incumbrance of a husband is preferred; but after a time, to shame grown callous, like Jeshurun she may wax fat and kick. Reckless of erysipelas and expense entailed, the married wet-nurse lives but for one idea—bottled stout; and bottled stout *ad libitum* she must have, otherwise it is discovered that the child at home is neglected. The husband, who is always hanging about the premises, growing jealous, threatens to take his wife away just when the sick child is deriving benefit, or else, in a business-like manner, takes to hard drinking.

Most writers define eczema to be a non-contagious catarrhal inflammation of the skin produced by an accumulation of serum beneath the epidermis, in the form of minute vesicles with inflamed bases. Resembling a joint-stock company, these vesicles combine only to burst; an alkaline fluid exudes. There may be parental history on either side of phthisis, syphilis, rheumatism, hepatic or renal disease. The mother may have suffered from thread- or tape-worms during pregnancy, indueing a feverish condition after delivery; or else, during pregnancy or lactation, undergone mental anxiety. The disease may be hereditary, yet the strong and weak of light complexions suffer equally—one child only in a family sometimes the victim.

On the look out for faulty food assimilation—in other words, the imperfect absorption of fatty matter—we notice the child's head, the fontanelles, the face, the complexion, the tongue, and the gums, not forgetting the conformation of the chest, the suppleness of the arms, the size of the abdomen, and the appearance of the motions. Criticising the hygiene of the nursery, we wonder if the mother, exercising constant supervision, has common sense; whether the drains are all right; and, above all things, if the nurse, taking an interest in the child, is attentive, or else, when unobserved, neglects her charge to pore over "A Terrible Temptation," or write love-letters to Corporal Spurgeon of the "Blues." Of course, vaccination is blamed (and, to tell the honest truth, recent investigations prove that greater care is required in this particular). An eczematous child, when vaccinated, will often develope healthy-looking vesicles; an attack of measles or varicella will drive away the eruption, but, alas! only temporarily. The heat of the sun, exposure to cold, will induce a fresh blaze; and, as each tooth appears, the gum-lancet is in requisition. Ever on the look out for diarrhœa, congestion of any internal organs, or convulsions, let us enumerate the armoury of remedies found by time and experience of service. Sedatives to allay nerve irritation, steel-wine, beef-tea, cod-liver oil, rhubarb and magnesia, mineral acids, bismuth, iodides, arsenic, strychnine, quinine, alteratives, tonics, diuretics. Locally, poppy fomentations, or marsh-mallow; baths of soda, gelatine, milk, and bran; various soaps; ointments of lead, zinc, sulphur, and nitric oxide of mercury; preparations of tar, creosote, carbolic acid, and oil of juniper. But we require the skill of the specialist who plays on one string to help us in diagnosis. In some cases, the biscuits of the immortal Robb (whose

statue ought to be in Leicester-square) will alone effect a cure. Quinine and arsenic will marvellously benefit one child; the local application of benzoate of zinc ointment, the powder of zinc, starch and camphor, or nitrate of silver will cure another; whereas the third child will get well without any treatment.

Quinine, cod-liver oil, bichloride of mercury, Parrish's food, the local application of black-wash, making the food a matter of study as well as correcting vitiated secretions, and trying sea air, would comprise the treatment in many instances. As to sedatives, chloral hydrate or henbane may be reluctantly given, or opiate suppositories cautiously administered.

Matthew Browne tells a story of a shock-headed, wart-nosed tradesman, brandishing a carving-knife, and holding forth thus:—"What does a man go and be a politician for? His own aggrandysement. What makes me go for to keep a ham-and-beef shop? My own aggrandysement!" Just so. Rich old gentlemen suffering from chronic eczema, pray come to Cheltenham; and to prevent delicate mistakes, please understand that no fee under three guineas will be acceptable at

Bangalore Villa.

COMMUNICATIONS have been received from—

Dr. Day; Mr. Tilley; Messrs. Hay and Co., Mr. Custance; Dr. Muter; Mr. D. Stone; Mr. Martin Murphy; Mr. Armstrong; Banoalore Villa; Dr. Fisher; Dr. Perry; Mr. James Salter; Dr. Fayrer; Dr. Gairdner; J. G.; Dr. Mapother; Mr. Westerton; Phlegmon; Mr. J. Collie Smith; Mr. Macnder; Mr. Wickham Barnes; Mr. S. Parsons; An Old Pupil of John Abernethy; Mr. Richardson; Dr. Murray; A Young Practitioner; Mr. E. L. Fenn; Beta; Dr. Sturman; Mrs. Munro; Dr. Hussey; Cantab.; Dr. Neild; Mr. Morrant Baker; Dr. Stevenson; Mr. T. C. White; Mr. Gulliver; Dr. J. J. Ridge; Mr. J. Chatto; Dr. F. R. Hoog; Dr. J. M. Moore; Dr. J. Hughlings-Jackson; A Subscriber; Mr. Stocker; M. A. B.; Mr. T. Littleton; Mr. W. G. Mace; Dr. Meeres; Mr. H. Palmer; Mr. F. R. Cross; Dr. J. Imray.

BOOKS RECEIVED—

Trousseau's Clinical Medicine, vol. iv.—Morgan's Phrenology, and How to Use it—Professor Filippo Pacini, del Colera Asiatico—Medicinische Abhandlungen für die Gebildeten Aller Stände, von Eduard Reich—Cobbold on Food-producing Ruminants—Report of Quekett Microscopical Club—Annual Report of Sanitary Condition of St. Pancras—Notizen und Erinnerungen eines Ambulanz-Chirurgen, von William MacCormac, aus dem Englischen Ubersetzt von Dr. Louis Stromeyer — Macbeth's Experiments on the Effects of Reptile Venom—Disinfectants, and How to use Them, by Dr. E. T. Wilson—Simple Sanitary Precautions against Cholera and Diarrhœa—Report of the British National Society for Aid to the Sick and Wounded in War—Harveian Oration, 1871, and two Sequels—Dr. Dougall on the Relative Power of Various Substances in Preventing the Generation of Animalculæ—The Contagious Diseases Act and the Royal Commission—Report of the Hospital for the Insane, Gladesville—La Calentura Roja, por D. Ramon Hernandez Poggio—Ninth Annual Report of the Pekin Hospital—Collyer's Mysteries of the Vital Element—A Complete History of the Case of the Welsh Fasting Girl, by Dr. Robert Fowler—William Adams on a New Operation for Bony Anchylosis of the Hip-joint with Malposition of the Limb—Report of the East London Hospital for Children—Report of the St. Mark's Ophthalmic Hospital and Dispensary, Lincoln-place, Dublin.

PERIODICALS AND NEWSPAPERS RECEIVED—

Food Journal, Sept.—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für die Medicinischen Wissenschaften—Wiener Medicinische Zeitung—Monthly Microscopical Journal, Sept.—Gazette Hebdomadaire — Bulletin Général de Thérapeutique — La Tribune Médicale—La Gazette des Hôpitaux—L'Union Médicale—Glasgow Daily Herald—Nature—Practitioner, Sept.—New York Medical Journal, July—Edinburgh Medical Journal, Sept.—Hardwicke's Science Gossip, Sept.—Pharmaceutical Journal—Australian Medical Gazette—Australian Medical Journal—Weekly Hampshire—Jamaica Semi-Weekly Gleaner—Philadelphia Medical Times—Folkestone Express.

APPOINTMENTS FOR THE WEEK.

September 16. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

18. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

19. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

20. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1¼ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

21. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; West London, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

22. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

Quekett Microscopical Club, 8 p.m. Mr. J. G. Waller, "On the (so-called) Boring or Burrowing Sponge."

VITAL STATISTICS OF LONDON.

Week ending Saturday, September 9, 1871.

BIRTHS.

Births of Boys, 1027; Girls, 1028; Total, 2055.
Average of 10 corresponding weeks, 1861-70, 1925·1.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	727	695	1422
Average of the ten years 1861-70	655·2	640·4	1295·6
Average corrected to increased population	...	...	1425
Deaths of people above 90	...	...	...

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561189	4	4	6	1	4	2	1	1	40
North ...	751668	43	1	12	1	6	4	3	...	62
Central ...	333887	3	4	...	1	4	1	2	2	21
East	638928	14	6	2	...	1	1	3	3	70
South	966132	17	6	6	...	11	...	6	5	100
Total	3251804	81	21	26	3	26	8	15	11	293

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·747 in.
Mean temperature	60·5°
Highest point of thermometer	76·3°
Lowest point of thermometer	46·6°
Mean dew-point temperature	53·4°
General direction of wind	S.W.
Whole amount of rain in the week	0·66 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, September 9, 1871, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1871.*	Persons to an Acre. (1871.)	Births Registered during the week ending Sept. 9.	Deaths Registered during the week ending Sept. 9.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3263872	41·8	2055	1422	76·3	46·6	60·5	15·83	0·66	1·68
Portsmouth ...	113450	11·9	57	43	75·2	48·2	60·0	15·56	2·15	5·46
Norwich	80533	10·8	57	39	75·5	46·0	60·3	15·72	0·84	2·13
Bristol	183298	39·1	133	67	...	...	...	...	...	...
Wolverhampton ...	68476	20·2	48	31	71·2	44·9	57·3	14·05	2·52	6·40
Birmingham ...	344980	44·1	233	206	72·0	44·4	57·6	14·22	2·00	5·08
Leicester	95882	30·0	74	69	...	...	...	...	...	...
Nottingham ...	86929	43·6	55	47	74·0	45·5	58·9	14·94	1·46	3·71
Liverpool	493649	96·8	334	318	68·8	47·7	57·3	14·05	0·82	2·08
Manchester ...	356099	79·4	291	280	73·0	46·0	57·7	14·28	1·10	2·79
Salford	125422	34·3	103	106	70·8	45·8	56·5	13·61	0·99	2·51
Bradford	146987	22·3	99	92	70·0	48·2	57·7	14·28	0·88	2·24
Leeds	260657	12·1	189	182	71·0	45·0	56·9	13·83	1·39	3·53
Sheffield	241507	10·6	177	144	71·0	44·0	57·8	14·33	1·95	4·95
Hull	122266	34·3	80	73	74·0	44·0	58·7	14·83	1·97	5·00
Sunderland ...	98797	29·9	101	84	...	...	...	...	...	...
Newcastle-on-Tyne	128677	24·1	84	111	66·0	48·0	55·9	13·28	1·08	2·74
Edinburgh	201728	45·6	108	81	68·0	48·0	58·5	14·72	0·60	1·52
Glasgow	479227	94·7	307	237	66·0	50·5	57·7	14·28	0·05	0·13
Dublin (City, etc.)	310565	31·9	137	138	71·9	43·2	57·4	14·11	1·61	4·09
Total of 20 Towns in United Kingd'm	7204001	33·8	4722	3770	76·3	43·2	58·0	14·41	1·80	3·30

At the Royal Observatory, Greenwich, the mean reading of the barometer in the week was 29·75 in. The highest was 29·99 in. on Tuesday morning, and the lowest was 29·50 in. on Saturday morning.

* The figures in this column are the unrevised numbers enumerated in April last, raised to the middle of the year by adding 1-40th of the rate of increase which prevailed between 1861 and 1871. As the population of Dublin and its suburbs showed a decline between the Censuses of 1861 and 1871, the enumerated number in April last has been inserted above for that city, the population being assumed to be now stationary.

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Accident Case, by Dr. Angove	,,	4	4 0
Ligature Silk, by Arnold and Sons	Per Tablet	0	1 6
Metrometer Sound, by Dr. Greenhalgh		2	2 0
Chloroform Bottle, by Mr. J. A. Bloxam		0	3 6
Improved Blowpipe, by Mr. H. A. A. Nicholls		0	3 6
Economising Inhaler for Nitrous Oxide	Complete	3	10 0
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Bilateral Metrotome, by Dr. Greenhalgh		4	4 0

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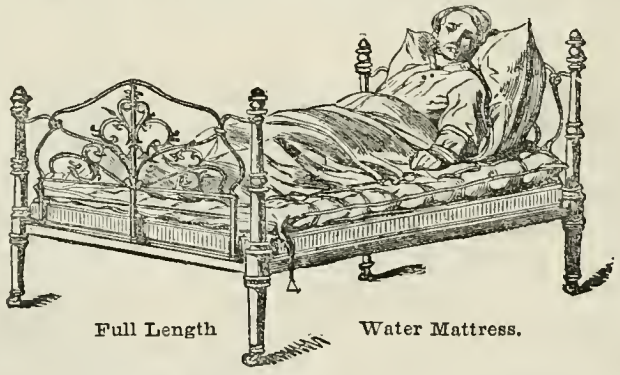

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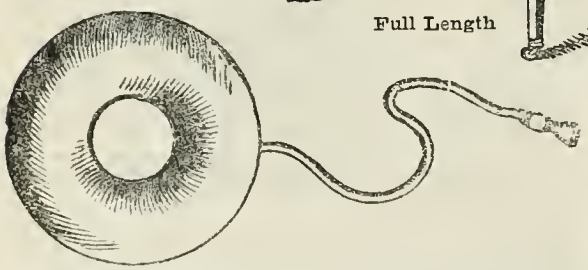
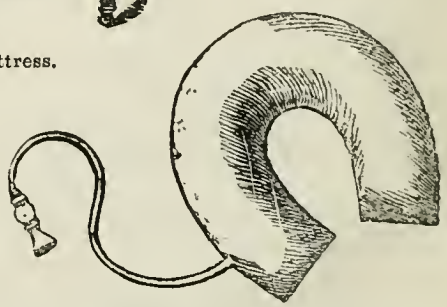


Circular Cushion, for sitting on.



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ORIGINAL LECTURES.

LECTURES ON EXPERIMENTAL AND PRACTICAL MEDICINE.

By BENJAMIN W. RICHARDSON, M.D., F.R.S.

Lecture I.

ON THE PHYSIOLOGICAL ACTION OF THE ORGANIC HYDRIDES.(a)

Gentlemen,—I am about to-day to invite your attention to some researches on a class or group of chemical organic substances, which, though of singular physiological interest, have not as yet found their way into Medicine—nay, have not until now been under experimental notice for the attempted advancement of Medicine and Medical art. The substances I would name, called by the chemists hydrides, organic hydrides, constitute a very large group, and in the chemical world have been deemed worthy of the most careful investigation and study. At the risk of seeming too elementary, I must venture to introduce a sentence or two respecting the chemical construction and physical characters of the hydrides—their place in nature.

PHYSICAL NOTES.

The organic hydrides are chemical compounds in which the element hydrogen is combined with an organic radical. Hydrogen, in fact, as Gregory puts it, is "the inorganic starting-point of the organic series" to which the hydrides belong. I may take, in the way of illustration, certain of the series which are to come under our notice to-day physiologically.

When carbon and hydrogen combine as CH_3, they yield by the combination the organic radical methyl or protyl. When to methyl is added hydrogen, a new substance is presented, having for its elementary composition CH_3H. This is hydride of methyl or protyl—sometimes called protylen. It exists naturally, and is formed naturally in some places, and is known as fire-damp and as marsh gas.

When carbon and hydrogen unite in another proportion—namely, as C_2H_3—they form the organic radical ethyl or deutyl; and when to this radical hydrogen is added, the resulting compound, C_2H_5H, is hydride of ethyl or deutyl (deutylen).

When carbon and hydrogen unite in a third proportion—namely, as C_3H_7—they form the organic radical propyl or trityl; and when this is united with hydrogen, it forms the hydride of propyl or trityl (tritylen).

When carbon and hydrogen unite, as C_4H_9, they form the organic radical butyl or tetryl; and when hydrogen is added there is formed the hydride of butyl or tetryl, C_4H_9H (tetrylen).

When carbon and hydrogen combine, as C_4H_{11}, they give the organic radical known as amyl or pentyl; and when to the radical hydrogen is added, there is presented the hydride of amyl or pentyl, $C_5H_{11}H$ (pentylen).

Lastly, when carbon and hydrogen unite, as C_6H_{13}, they form the radical caproyl or hexyl; and when to this hydrogen is added, the resulting compound is the hydride of caproyl or hexyl, $C_6H_{13}H$ (hexylen).

The combinations of carbon and hydrogen do not stop here. The carbon in higher series continues to increase, and to form, with the same proportional increase of hydrogen as in the series we have seen, new radicals, on which hydrides may be constructed. To make the matter of construction a little clearer, and to show the relation of the hydrides to other series, here is a short table, in which five representatives of organic radicals—viz., methyl, ethyl, propyl, butyl, and amyl—are placed in groups, showing how, by their combination with different elements, they produce different series. Thus, it is shown that with hydrogen they give hydrides; with nitrous acid, nitrites; with oxygen, alcohols; with chlorine, chlorides; and with iodine, iodides. The list might be greatly increased, but it is sufficient for the purpose of illustration:—

Old. Name.	New.	Chemical composition.
Methyl	Protyl	CH_3
Ethyl	Deutyl	C_2H_5
Propyl	Trityl	C_3H_7
Butyl	Tetryl	C_4H_9
Amyl	Pentyl	C_5H_{11}
Hydrides of—		
Methyl	Protyl	CH_3H
Ethyl	Deutyl	C_2H_5H
Propyl	Trityl	C_3H_7H
Butyl	Tetryl	C_4H_9H
Amyl	Pentyl	$C_5H_{11}H$
Nitrites of—		
Methyl	Protyl	CH_3NO_2
Ethyl	Deutyl	$C_2H_5NO_2$
Propyl	Trityl	$C_3H_7NO_2$
Butyl	Tetryl	$C_4H_9NO_2$
Amyl	Pentyl	$C_5H_{11}NO_2$
Alcohols—		
Methylic	Protylic	CH_4O
Ethylic	Deutylic	C_2H_6O
Propylic	Tritylic	C_3H_8O
Butylic	Tetrylic	$C_4H_{10}O$
Amylic	Pentylic	$C_5H_{12}O$
Chlorides of—		
Methyl	Protyl	CH_3Cl
Ethyl	Deutyl	C_2H_5Cl
Propyl	Trityl	C_3H_7Cl
Butyl	Tetryl	C_4H_9Cl
Amyl	Pentyl	$C_5H_{11}Cl$
Iodides of—		
Methyl	Protyl	CH_3I
Ethyl	Deutyl	C_2H_5I
Propyl	Trityl	C_3H_7I
Butyl	Tetryl	C_4H_9I
Amyl	Pentyl	$C_5H_{11}I$

Of the members of this tabulated group we return, then, to the hydrides. I have said that one of them—the first of the series—exists naturally, under the names of "fire-damp" and "marsh gas." It is no uncommon source of dread and of danger to certain of our hard-working populations. The other hydrides exist, also, freely in nature, but not in so diffused and commonly recognised a form. They exist combined in the American oils called petroleums, and from these they may be separated, in fair conditions of purity, by the process of fractional distillation.

The hydrides can also be made in the laboratory by chemical manipulation. Hydride of methyl can be produced by heating together acetate of soda, caustic potassa, and well-dried lime; and we have on the table a large glass vessel filled with the gas made by this process. Hydride of ethyl can be made by exposing, at a temperature of 300° F., iodide of ethyl to zinc in the presence of water in a closed tube; and from the iodides of the respective series all the hydrides can, in a similar manner, be constructed. On the present occasion we have before us carefully made specimens of all the organic hydrides, from the hydride of methyl up to the hydride of heptyl, $C_7H_{15}H$ (heptylen). They have been prepared with much care and labour by Dr. Versman, who has devoted immense time and work to the study of these organic compounds.

When we examine these hydrides we find that those of the series below the amyl hydride are gases. At the amyl series we arrive at a liquid; but see how light it is! It boils vehemently in my hand, and I can set a glass globe of it into active ebullition by merely applying the surface of my hands to the sides of the globe—it boils, indeed, ten degrees lower than the purest ether. This fluid is thin and bright, like water, and it runs like water; but when we take up some of the higher representatives of the group—the hydride of hexyl, for instance—we find that with the increase of weight there is an oiliness of the fluid. The higher hydrides are, in fact, from this circumstance, commonly called oils.

The hydrides are all insoluble in water; they are soluble in ether more than in any other menstruum. The liquid hydrides dissolve many substances, as iodine, bromine, fats. Of this capacity for dissolving some medicinal agents I have taken advantage, as I will by-and-bye explain. The hydrides all burn in the air, the amount of light they evolve increasing as

(a) Lectures delivered in the session of 1867-68; with an appendix of additional researches on a new anæsthetic compound for producing quick general anæsthesia.

the weight of the carbon increases. Thus, if I pass some of this marsh gas—methyl hydride—through a jet and burn it, I get, as you will see, a faint pale light; but if I drive the gas through one of the fluid hydrides and then burn the compound gas that escapes, I get a good light. Finally, on this part, the hydrides one and all have a peculiar odour—an odour essentially their own, which certainly is not pleasant, and which is not easily removed from them.

PHYSIOLOGICAL AND PRACTICAL.

We will pass now to the consideration of the physiological and practical characters of the hydrides, and that I may be clear I will take them up in order one by one. Certain general notes, applicable to them all, may nevertheless be first supplied, by which much labour of detail will be saved.

I have said that the hydrides are insoluble in water; for this same reason they are insoluble in blood. Nevertheless, they do to a certain extent diffuse through bleed freshly drawn, and a certain quantity of them is lost in blood as if it were absorbed. We can, consequently, by exposing the vapour of the hydrides to the blood as it courses over the lung, secure that a certain amount of the vapour shall enter the system and produce a physiological effect; but the absorption is infinitely small compared with the absorption of an oxide or of a chloride formed on the same radicals; we find no other ready method of introducing them.

In parenthesis, let me add a thought on the question of gaseous and liquid diffusion of other substances besides the hydrides through the body. There are some substances so soluble, that in whatever way we introduce them—by the skin, by the mucous membrane, by the veins, by the lungs—they will enter readily and pass readily through the tissues by liquid diffusibility. There are, again, substances which, like the hydrides, are so insoluble they will only act when they are introduced by the lung. These latter diffuse by gaseous diffusion; they pass, if I may so say, into the gaseous or vaporous atmosphere of the blood. Into the blood, as a fluid, they do not enter at all, and yet they may produce transient but profound influences on the organism. On this subject of diffusion we have a great deal to learn, both as Physiologists and Physicians.

The hydrides then, as an insoluble class, pass, I repeat, into the body by diffusion, if, when we have transformed them into gases or vapours, we apply them through the medium of the pulmonary circulation in such a manner that they can be absorbed, as we say commonly, into the blood; but the absorption is by gaseous diffusion.

There is another quality of the lighter hydrides that deserves notice. When brought into the most intimate contact with the tissues they produce no local irritation. We may put a fluid hydride—hydride of amyl, for instance—on the tongue, we may apply it to an open wound or abraded surface, and it will produce no pain, no irritation. You will say that this is owing to the insolubility of the substance in the animal fluids. And so at first it seems to be; but then there is the oil known as turpentine, which is equally insoluble, and which, like the hydrides, is made up of the two elements carbon and hydrogen ($C_{10}H_{16}$), and turpentine, we know, is an extreme local irritant. There is something, therefore, more than insolubility concerned in the fact that the hydrides are not irritants; there is something in the arrangement of the components, in their balance or stability, that must account for the phenomenon. Here, once more, is opened for us a new field of investigation.

Methyl Hydride.

Synonyms: Pretyl Hydride—Protylen—CH_3H.

Methyl hydride exists as a gas, the vapour density of which, taking hydrogen as unity, is 8; in other words, it is eight times heavier than hydrogen. It has a faint odour, but it can be breathed in the undiluted form, for a short time, without difficulty or discomfort.

In order to see the action of methyl hydride it is necessary to administer it freely—at least, 35 per cent. of it is required in the air to be breathed before the effects it causes are fully manifested. If it be wished to produce a rapid action, the proportion of gas to air must be greater than that I have named—it must be 70, or from that to 80, per cent.

There is here a square chamber of glass. I have charged it with seventy-nine parts of methyl hydride and twenty-one of common air. I will now let into this chamber a pigeon and a guineapig. You see that without any excitement the animals quickly begin to pass into sleep; they sink down into the most placid sleep, and they seem as if they were dead. I take them, however, out of the vapour before the respiration has positively stopped, and in the matter of a second or two they return to consciousness, the muscular power also returning as perfectly as ever. Well, this is the action of the gas at all times, and on all animals, as far as I can discover. By diluting the gas more freely with air the period for the production of anæsthetic sleep may be prolonged, but the result is what we have just observed—a deep, brief, anæsthetic sleep; deep because the diffusion of the gas into the body has been free; brief because the gas, owing to its insolubility, has been held in no close physical bondage, has entered into no combination in the organism. If gases were practical agents in the way of administration, the methyl hydride might be employed for the purpose of inducing general anæsthesia for short operations. It would be very effective and very safe. But it would be troublesome to make and keep and transport on a large scale, and it would require a cumbrous apparatus for its administration. We may, consequently, dismiss it from our minds as a narcotic applicable to the daily service of the Physician.

There are, notwithstanding, two or three practical subjects connected with this gas that are most useful to be known. In the mine, when the gas is evolved in large quantities, it becomes sometimes a cause of death. It is fire-damp, and, without explosion, it will kill by the same process of narcotism we witnessed in our experiment a few minutes ago. Of this mode of death we may feel assured that, whenever, unhappily, it occurs, it is one of the most painless of deaths. The death must be as easy as the process of going to sleep, and it is probably completed without so much as a struggle. It thus happens that, after this mode of death in the mine, the spectators who first view the sleeping dead are struck by the placidity of the expression of the dead. The bodies are seen in the position usually assumed during sleep—the trunk and extremities gently flexed, the muscles of the face calm and peaceful, the whole cast that of a sleeper in profound and undisturbed repose. When we read of a body of men having been suffocated with fire-damp, the sorrow arising from the narrative may, therefore, be tempered by the reflection that the death was euthanasia, and was less painful than death is in general amongst humankind.

To this assurance two other encouraging facts may be added. In death from methyl hydride the percentage of the gas in the air inspired must be very large. For this reason it is possible to live for a long time in a moderate mixture of the gas with air without being conscious of any peculiar effect; whilst recovery from even extreme effects of it is nearly instantaneous when air is freely readmitted. In cases, therefore, where a catastrophe from fire-damp has happened, no effort can be too prolonged on behalf of the sufferers. Hope, in such instances, should be sustained beyond hope; for the narcotic air that lays the man in prostrate sleep will kill only by sleep, will not kill with violence, and may fail to kill altogether.

From the negative character of this gas, from its insolubility, it is easily carried out of the body. We have to-day witnessed this truth. It ought thereupon to be remembered, as a sequel and a practice, that the means for promoting recovery from the influence of the gas, when life is not extinct, are simplest of simple. The first and most important measure is artificial respiration. When the breathing has actually stopped for three or four minutes after the seemingly fatal inhalation of the gas by the lower animals, respiration may be restored by artificial inflation of the lungs; and in cases of death from fire-damp, when the human life appears to have been extinguished by the breathing of the gas, the process of artificial respiration ought to be as sedulously sustained as after death by drowning, the result being much more likely to prove a success. Together with artificial respiration, warmth—the warmth of a room filled with fresh-heated air—is of moment as a remedy; and near to every mine there ought to be a receiving-room, ready supplied with warm air, and with a simple double-acting bellows for sustaining artificial respiration.

The day will probably come when some advance will be made in the art of restoring animation at considerable periods of time after what is now called actual death; and when that day arrives there will surely be no form of suspended animation so easy to treat as that from fire-damp. The heart under the influence of this gas outlives the respiration; the lungs are subjected to no extremity of congestion of blood on the one side, nor of exhaustion of blood on the other; the muscles are cast into no spasmodic strain; the nervous centres are oppressed with no extreme tension; the blood is saturated with no soluble poison. Indeed, as an animal killed by this gas lies dead before us—actually dead, so far as we now knew about death—it is

hard to believe, either from external or internal evidence, that the death has inexorably taken place.

So much for methyl hydride when it is met with in mines as fire-damp. But we have not yet done with it; it also has an interest to us as marsh gas. In marshes, especially where the soil is of peat, the gas forms in large quantities; and for centuries past, long before the chemical nature and properties of the gas were at all known, it was supposed to be a true malarious poison, the cause of marsh fever.

I wish at once to dispose of this long-sustained and popular theory. It is no doubt correct, that in places where marsh gas is abundant, malarious fever is prevalent and endemic. It may be that the marsh gas is sometimes a carrier of true malarial poison—I mean that the actual poison, with water vapour, may be diffused through the gas; or it may even be that the presence of the gas in the atmospheric air is, after a long time, injurious to those who breathe the air. But, all these admissions made freely, the fact remains that the gas itself is in no sense of itself a malarious poison, and the theory that assigns to it malarious qualities is utter error. From direct observation I know that the gas may be breathed in the proportion of not less than 35 per cent., and although it produces temporary symptoms of drowsiness, sleep, and muscular prostration, it is harmless in other respects, and produces certainly no after-symptoms of a pyrexial character.

Ethyl Hydride.

Synonyms: Deutyl Hydride—Deutylen—C_2H_5H.

Ethyl hydride is, as we see, a gas, at ordinary temperatures. Its composition is C_2H_5H; its vapour density is 15, as compared with hydrogen; it has the odour peculiar to the hydrides, but in a very faint degree; to some it seems inodorous. I have several times breathed this gas, and find that, like methyl hydride, it is narcotic in action. Animals placed in it, when it is mixed with air in the proportion of 75 per cent. of gas to 25 air, are quickly and safely rendered insensible to pain and consciousness; they also recover rapidly from the narcotism. The action seems to me to be almost negative in its character. When the hydride kills, the death is, I also think, rather to be considered as due to the deprivation of air than to the active agency of a chemical substance on the circulation or on the nervous centres.

In any attempt to utilise ethyl hydride for the purposes of the practising Physician, we must either apply it as a gas or condense it in ether or amyl hydride.

Propyl Hydride.

Synonyms: Trityl Hydride—Tritylen—C_3H_7H.

Propyl hydride exists at ordinary temperatures as a gas. Its composition is C_3H_7H. Its vapour density, compared with hydrogen, is 22. Its action, physiologically, may be considered as practically identical with the next of the series, to which we now turn—viz., butyl hydride.

Butyl Hydride.

Synonyms: Tetryl Hydride—Tetrylen—C_4H_9H.

Butyl hydride exists, at ordinary temperatures, as a gas; but it may be condensed to the liquid condition by cold; and in the next representative of the series, amyl hydride (on which I shall have to speak at greatest length), it is always present, unless the amyl hydride is distilled over at the temperature of its own boiling-point. This butyl hydride has for its composition C_4H_9H. The density of its vapour is 29 compared with hydrogen. It is of the same faint odour as ethyl hydride. When butyl hydride is inhaled, it produces sleep and unconsciousness, like as we see produced by the two lighter hydrides; but the quantity of vapour required to produce a decided effect is less by one-fourth. The action of this gas reminds one very closely of the action of nitrous oxide; it asphyxiates if it be long continued, and causes the convulsive movements of asphyxia. This gas is also negative in action, and when it kills, the destruction of life by it is mainly due to simple exclusion of air.

Amyl Hydride.

Synonyms: Pentyl Hydride—Pentylen—$C_5H_{11}H$.

I bring you now to the hydride which, as far as we yet know, is of most importance to us in our practical work—amyl hydride. I believe the day will come when amyl hydride will be as well known in the surgery and in the laboratory of the pharmacien as olive oil, ammonia, alcohol, or ether are now known; and I feel no small pleasure in being the first specially to recognise and point out its usefulness. For though it may seem a little and perhaps a childish thing to lift up to consideration a bottle of simple fluid like this, yet when a fluid as simple, even, as water itself is found to have everyday applications, it becomes a useful act to have picked it out from a host of other apparently more precious substances, and to have fitted it into its true place and service for mankind.

Amyl hydride is, as you will observe, the first of the organic hydrides of the group we are studying that comes to us in the liquid form. As a liquid it is beautifully clear, mobile, and transparent. It gives no oiliness to the touch, and it is absolutely innocuous when applied to the skin or mucous membrane. If I pour an ounce of it out into a beaker and try to swallow it, it passes into vapour in my mouth with such vehemence that it boils and bubbles over furiously, but it does no harm whatever; and if a little of it be actually swallowed it does no real harm—it distends the stomach, and acts like other gases that produce flatulency, but inflicts no injury on the mucous surface.

The composition of the pure hydride of amyl is $C_5H_{11}H$; for brevity we may write it C_5H_{12}. It boils at a temperature of 30° C. (86° Fahr.). It has a specific gravity of ·625 (the specific gravity of water being ·1000), and the density of its vapour, taking hydrogen as unity, is 36—that is to say, it is thirty-six times heavier than hydrogen. When very pure it has a very faint odour, so faint that some say it is positively inodorous; but there is a difference of opinion on this point, due obviously to a difference of the olfactory sense in different individuals. Hence I have met with those who say the substance gives a sickly and even unpleasant odour, like that of the lily.

The vapour carries with it the perfumes and odours, mild or pungent, of other substances with singular efficiency. A mixture of ammonia and the hydride, made by passing vapour of ammonia through the hydride, is intolerably pungent—keener than ammonia itself. The sweet-smelling odours of the verbena and rose are carried by it most perfectly, and, to be brief, it might be made the basis of all scents and fragrant essences we use artificially.

Amyl hydride may be derived from two sources: it may be made in the laboratory, and it may be found in a tolerably pure state in nature. I will speak of the artificial product first:—

We have seen that when iodide of ethyl is brought into contact with zinc in the presence of water there is formed ethyl hydride. A similar process is followed in the manufacture of amyl hydride, the difference being that amyl iodide, of which I send round a specimen, is the substance exposed to the zinc in presence of water instead of ethyl iodide. The substances are subjected for several hours to a heat of 288° Fahr., and the products are then very carefully distilled over. There results from the distillation two products—amylene and amyl hydride. They pass over in the fluid state, and in combination with each other.

We are already familiar in Medicine with the substance called amylene. It is the agent introduced by the late Dr. Snow for the production of anæsthesia, and once, as it seemed, was about to take the place of chloroform. Why it failed is not a question before us at the present moment; we have now only to think of separating it from the amyl hydride.

The combined fluids distilled over into the retort are next treated with caustic potassa, and are left in contact with it for a period of twenty-four hours. At the end of that time the retort is placed on a water bath at a temperature of 95° Fahrenheit, and the fluids are distilled over again in combination. The distillate thus obtained is next placed in a flask or retort surrounded by a freezing mixture, and when completely chilled it is treated with anhydrous sulphuric acid, which retains the amylene. Lastly, the hydride of amyl is distilled over as a separate and distinct product. For this elaborate process we are indebted to Dr. Frankland.

To be obliged to obtain amyl hydride for extensive practical purposes by this process would be, good as the process is, to exclude the product from us for general daily use. Fortunately, we find it given to us by nature on a large scale, and are therefore independent of the chemist for its steady supply.

It has been known for some years past that amyl hydride forms part of the oils known as American petroleum oils, and from these it has been separated, as the lightest of the class, by the process of fractional distillation. We have it sent to us in large quantities from this source, but not actually pure. It contains, as we receive it, some lighter hydrides condensed in it, and some heavier mixed with it. By careful distillation it may, however, be cleared of these; and I can send you round for inspection a specimen from our friend Dr.

Versman's laboratory so pure that it serves all the purposes of our research. It answers, too, all the physical qualities that have been assigned to the hydride, and it is most pleasant to inhale. Soon after the introduction of ether spray a light petroleum was brought to me as a fluid that might take the place of absolute ether for the production of intense cold by means of my spray apparatus. The fluid had been used thus, I learned, by Dr. Bigelow, of Boston, United States, and it was called rhigolene. I tried the fluid with the spray apparatus, and found, indeed, that it answered well—I may say, too well, for the freezing was instantaneous, limited, and evanescent. I heard, at the same time, that the vapour of the substance had been tried for the production of general anæsthesia by inhalation, but I was unable to obtain any details on this last-named subject. Sufficient, nevertheless, came before me to make me sure that the agent I had in my hands would prove of service. I found it was an impure but fair natural specimen of amyl hydride, having a specific gravity of ·649; and from it I started on the line of research that is now being narrated.

Practical Applications of Amyl Hydride.

Anæsthetic Ether for Local Anæsthesia.—The first application studied had relation to the production of a new fluid compound for local anæsthesia by the spray process. The hydride having been found soluble, in all proportions, in rectified ether, various combinations of the two fluids were made, and the effects registered. In freezing with the spray, it is not the best practice to freeze too rapidly, for if the superficial parts be instantly frozen, the layer of frozen surface acts as a non-conductor, and deeper freezing is rendered impossible. At the same time, the practice is bad that delays the freezing process too long, since delay gives pain in the act of freezing, and pain during reaction. The point to find, therefore, was the correct medium or proportion between ether and the hydride for the end held in view. After many experiments and many applications for operation on the human subject, I find that a mixture of one part of the hydride to four parts of ether is the most effective and ready fluid for spray. I call the mixture "Compound anæsthetic ether for local anæsthesia." As a rule, this compound induces, in the form of spray, perfect insensibility of the skin in from ten to twenty seconds of time. It gives less pain than ether, when applied to a cut or open surface; and in operations upon the teeth it is much better in action than the best ether used alone. It may be diffused into the mouth, as spray, with perfect safety, having no quality that needs to be dreaded. Once or twice during long operations on the mouth, and when the compound vapour given off from the spray was unavoidably inhaled freely, there was produced general insensibility, but this was rather favourable than otherwise to the operative procedure.

Solutions.—I have said that the hydride of amyl is a solvent of many medicinal substances; and this fact has led me to use it in medicine, as a solvent, in various ways. I show you some of the compounds thus formed.

Iodized Hydride.—Iodine dissolves readily in amyl hydride, and produces, in the proportion of twenty grains to the ounce, a solution of great service in practice. When this solution is applied to the skin, the volatile hydride passes off at once as vapour, and leaves the iodine, in considerable quantity, behind, stranded on the part in most equal form of distribution. This application is of singular utility in cases of hard open sores, where it is desired to apply iodine evenly and deeply. Thus, in cases of open strumous glandular disease, the solution plays an important part as a means of cure, and the same in chronic indolent bubo. In bad sloughing fetid ulcerative and suppurative wounds, and in cancer, no solution is so simple, painless, and effective. In these last-named cases the iodine exerts more than a curative influence—it deodorises; it destroys decomposing organic products; it prevents the absorption of decomposed products, and protects against the secondary fever depending on such absorption. In applying the solution in the cases named, it may be gently poured over the part. There is necessity neither for cotton-wool nor for the brush.

From the iodized solution of the hydride, iodine itself may be inhaled with advantage in cases of ulcerated throat, and in cases of cavity of the lung. Indeed, whatever value in the treatment of phthisis and of bronchial phthisis there is in iodine, it is best obtained by the mode of administration now being described. Of course we have amongst us much difference of opinion as to the actual value of iodine inhalation, and I do not suggest this method in support of any one particular opinion. I hold my own view, and in favour of the practice in fitting cases, but I wish, for the moment, merely to describe a ready method of applying the practice, so that all who wish may adopt it. In using the twenty-grain solution for inhalation it is best to dilute it with more of the hydride until the vapour of the iodine given is scarcely at all irritating to the throat. The patient's own sensations on the matter are here the best guide, and with a very little instruction it is easy to secure that five grains of iodine shall be inhaled at one time. There is not the least occasion for hurry or for causing the slightest constriction of the fauces or pain. I usually administer from a little funnel of parchment paper, holding in it some finely teased cotton-wool, on which I drop the solution. From this funnel the patient breathes, holding it a short distance from the nostrils and mouth, so as to allow the admission of plenty of fresh air.

The solution of iodine in amyl hydride has another application, adapted this time not to the sick person, but to the chamber of the sick. There is no agent at one and the same time so potent for purifying the air of the sick-room as iodine. I introduced it several years back for purifying the air of the room or ward in which sufferers from small-pox are lying; and from all parts of the world, but from India especially, I have received recognitions of the value of the practice. But there has always been some difficulty in carrying out the process. Diffusion by volatilisation of the metalloid itself from a chip-box covered with muslin—a method invented by that able Surgeon, Mr. Hoffman, formerly of Margate—although it is in many cases most effective, is in most cases too slow, and, if I may use such a term, too local; while the plan of driving off the iodine by heat from a porcelain or metal plate is not a plan to be safely entrusted to a nurse. But with the volatile iodide solution all difficulty subsides. We take a packet of ordinary filter paper, the paper being cut into pieces three inches in diameter—in fact, cut as it is sold from the chemical storehouses—and on to a packet of one or two dozen, or more, of such papers we pour the solution until all the pieces are fully saturated with it. Then the papers are allowed to dry; they dry very quickly, and are put into a box ready for use. We give a dozen or so of these papers to the nurse, and tell her to keep some of them exposed to the air in two or three places about the sick-room, so that the odour of iodine may be faintly recognisable through every part of the room; and this done, all is done for ordinary circumstances. To meet any unusual unpleasantness of the air, the nurse may take one or two of the papers and burn them like a taper or spill, when the deodorisation will be the more rapidly and determinately carried out.

In instances where a room or ward has been occupied by infectious cases, and it is required to purify quickly and effectively, the iodized hydride may be used in the form of spray. The spray-producer to be employed must be constructed of glass, as a metal spray-tube is injured by the solution. Siegle's simple tube answers for the purpose well. It is advisable before using the solution to have the room to be disinfected completely stripped of all furniture, the walls rubbed down, and the floors well swept, scrubbed, and dried. Then, from different positions in the room, the iodized hydride should be distributed in spray. The solution containing twenty grains to the ounce is strong enough. The room should have all its windows and doors closed before the iodine is distributed, and the quantity of solution sprayed should be measured. Practically, I find that one ounce of the solution to four square feet of space is a good adjustment of quantity to space. After the iodine has been distributed from the spray-producer, the room should still be kept closed for twenty-four hours at least; during this time the iodine deposited, at first, in the finest layer on the floors, ceiling, and walls slowly volatilises, and, coming into contact with the organic matter, destroys it rapidly. It is prudent not to take a light into the room after the distribution of the solution, until the windows and doors can be reopened, as the amyl hydride vapour easily takes fire.

The most persistent and offensive odours in rooms that have been occupied by the sick may, by this simple method, be more speedily purified than perhaps by any other known method. In asylum practice we get the most difficult of tasks of purification; for, from the bodies of the insane, organic compounds—probably of the sulphur class—diffuse and permeate everything, yielding the most offensive smells. As products of disease, these, perchance, have not a little to do with the unhealthy condition and physical derangement of the bodies from which they are emitted; and when they once fix in an apartment or room, they stay with a perseverance that is wonderful. I was consulted quite recently, at a house I visited, respecting a room of the house in which an epileptic man died, even months ago. This patient, during his fatal illness, suffered from profuse perspirations giving off the most offensive odours,

and still in the room where he had lain, despite all efforts at cleansing it, there was distinct evidence of the odour. To remove this unpleasantness there is nothing approaches iodine, as asylum experience has proved, and the best way of applying the iodine here, again, is by the spray process described. But when the process is being carried out, it must be carried out thoroughly. If the room be opened too quickly, and air be admitted so as to create too speedy a diffusion of the iodine, the cure will only be temporary, and after a lapse of three or four weeks the odour will be once more distinguishable; for these organic odorous products, if they be not absolutely destroyed, release themselves in time from the destroyer, and, being less evanescent, proclaim that the victory over them is incomplete.

In the course of my next lecture I shall consider amyl hydride as a general anæsthetic.

ABSTRACT OF
CLINICAL LECTURE ON ACUTE ABSCESS; SINUSES.

Delivered January 26, 1871.

By CHARLES F. MAUNDER, M.R.C.S.,
Surgeon to the London Hospital.

Gentlemen,—During my last in-taking week few cases of high-class Surgery were admitted, but many examples of minor Surgery were taken in. Now, although at first sight you may think these latter cases of trifling importance, yet, since they are the kind of case which you will more commonly meet with in private practice, I should advise you to study such with care; and it is to some of these that I shall direct your attention to-day. The first two, of which I have the notes by Mr. Kebbell, are examples of acute abscess.

Case 1.—To avoid being tedious, I may briefly tell you that a child fell upon an iron fender, and struck her cheek violently, a few days ago. Suppuration resulted, both in the cheek and under the jaw. You saw me open one abscess through the mouth, and the other through the skin.

Case 2.—In the case of a young woman the history is negative, but she had been much exposed to cold of late. The notes tell us that she had a pulse of 134; respiration, 38; temperature, 102·4°, on January 3. On January 4 I opened the abscess, and on the following day her temperature had fallen to 98°, showing a rapid improvement. On January 13 she is well.

The first thing we have to determine is—What is an abscess?—A circumscribed inflammatory swelling containing pus. What is the cause?—In the case of the child a blow was received, and we may be readily satisfied with that explanation; but in the instance of the young woman the etiology is not so apparent. You are aware that in instances of suppuration in regions containing lymphatic glands I am in the habit of advising you always to look for the cause of such suppuration to some source of irritation located in parts whence the lymphatic vessels entering those glands proceed. Now, in the large majority of instances, you will find that such source of irritation, and the cause of the suppuration, is evident. How, then, are we to account for this abscess? We must, I think, ascribe it to cold. She is a weakly-looking, anæmic subject, and I must ask you to believe that a current of cold air, impinging upon her neck and followed by great local reaction, was a sufficient cause.

How is an acute abscess generated? A part being sufficiently irritated, great congestion occurs, and with this effusion of inflammatory lymph. On examining a part thus involved (the skin and subcutaneous tissue, for example), it feels hot, somewhat fleshy, reddened and swollen, and the subject of it complains of pain. The child's case was a good illustration. After the lapse of a day or two the swelling is less diffused, and the other symptoms, with one exception, more marked. The fleshy induration is replaced by a soft elastic state of the centre, indicating the presence of matter. Some portion of the inflammatory lymph, instead of being absorbed, has degenerated into pus.

Treatment of this Superficial Abscess.—If the pain be not great, and the constitutional disturbance *nil*, the application of a hot poultice will suffice; and this will relieve pain and promote "pointing." By "pointing" is meant a tendency on the part of the abscess to discharge itself; and this it does by what is termed "progressive absorption," all the structures between the pus and the surface being disposed of with the exception of the cuticle. This latter having desquamated, the abscess has opened spontaneously. But there are circumstances under which it is not desirable to leave the case to nature, as when there is much constitutional disturbance; when it is situated on the neck or face, especially of the female, whom it is desirable to disfigure as little as possible. You will therefore make your incision small, and, if the abscess be seated on the cheek, try to puncture it within the mouth. The child under consideration has had two abscesses—one below the base of the lower jaw, which I could not reach from within the mouth, and therefore opened by small incision externally; the other, in the cheek, I evacuated by incision through the mucous membrane, the scalpel being guided to its destination by a grooved needle previously inserted.

Treatment of Abscess under a Deep Fascia.—The case of the young woman will contrast with that of the child. We found her with a large painful fluctuating swelling in the left side of the neck, the skin over it being scarcely, if at all, altered; and her temperature was high. I at once proceeded to open the abscess. It did not occur to me to delay for two reasons: she was the subject of traumatic fever; there was no sign of pointing, and, if left, the pus would probably burrow in various directions, and cause great mischief. It appears that fasciæ are slow to yield to progressive absorption, and therefore the knife is often required. I selected, also, the most dependant part of the swelling, and opened it by a small incision just above the clavicle for two reasons—first, to favour the flow of pus in accordance with gravity; and secondly, that the scar might be under cover of her clothes. The notes indicate the success of the treatment, the patient being soon quite well.

There is one other case to which I will allude, and of which the notes are also by Mr. Kebbell.

Case 3.—The patient, a healthy-looking young man, strained his groin some months ago; suppuration followed, and the resulting wounds have persisted. On admission three sinuses, varying from one and a half to three inches in length, existed.

Now, these sinuses are sequelæ of abscess, the abscess in this case, as is not infrequent in the groin, being the result of strain, and not of a distant local irritation, as already referred to. Why do they not heal? It is not easy to say, unless, being situated in the flexure of a joint, and the patient being actively employed, repair is interfered with by the movements of the limb, and the granulations at length become indolent.

Treatment of Sinus.—Various methods may be employed—such as the careful dressing by means of compress, strapping, and bandage, so as to keep the walls of the sinus in contact, and thus prevent accumulation of pus; the injection of stimulating lotions, as the nitric acid, the carbolic acid, the iodine, etc., and simple slitting. But the radical and most expeditious means of cure is that which you saw me employ. I slit up these sinuses on a director, and carried my incision at either end of the sinus some half inch into the sound structures, to form a channel for the ready flow of any future secretion, and to prevent bagging at the extremities. Then, with a pair of scissors curved on the flat, I cut away to a level with the healthy skin the thinned and overhanging integuments of either side. In this way an open wound resulted, almost level; and this, as you have seen, has nearly healed by cicatrisation from the edges of the sound skin. It is important for you to know when it is necessary to use the scissors as I have described. It is when the sinuses appear to run close under or in the substance of the skin itself, rather than deeply in the subcutaneous tissue. The roof of the sinus will be found to be very thin, and when slit up each half will have a tendency to curl, and so, if left, to form two sinuses instead of the original *one*. Sinuses connected with strumous glands of the neck may often be cured by this method of treatment.

The late Mr. Jackson, of Shoreditch and Northumberland-park, Tottenham, has bequeathed the sum of £10,000 to establish in Shoreditch a soup kitchen, and a Cottage Hospital to make up four beds; the housekeeper and Surgeon to be paid.

A branch of the "Association for Promoting the Extension of the Contagious Diseases Acts to the Civil Population," has just been formed in Hereford. The following members of the Profession have given in their names:—Dr. Bull, Messrs. Vevers, Thomason, Lane, Hanbury, Griffiths-Morris, and H. C. Moore. In addition to these are cleric and lay names of considerable influence.

ORIGINAL COMMUNICATIONS.

CASES OF ACUTE CEREBRAL DISEASE, WITH AUTOPSIES.

By W. H. BROADBENT, M.D.,
Physician to St. Mary's Hospital and the London Fever Hospital.

The principal object in placing the following cases on record is, that they may contribute to the elucidation of the diagnosis of the various forms of acute cerebral disease. It is not easy when acute head symptoms come on in an adult to form a definite opinion either as to the nature—*i.e.*, whether tubercular or not —or as to the seat of the disease. Much that has been stored in the memory from books is speedily unlearnt at the bedside, and a disagreeable uncertainty results. On the one hand, after a train of symptoms superficially similar, different pathological conditions are met with on post-mortem examination; on the other, after differences in clinical history which seem to point to diverse morbid changes, the appearances after death are very similar. What is needed is that by careful observation the characteristic features of any given class of cases should be, if possible, definitely ascertained, so that it may be withdrawn from the general chaos, and to this end an invaluable aid has been found in the ophthalmoscope, for the introduction of which into Physicians' practice we are indebted to Dr. Hughlings-Jackson and Dr. Allbutt.

An indefinite diagnosis is necessarily attended with uncertainty in prognosis. I have seen cases apparently as grave as those here related recover under various methods of treatment; but so long as no clear idea can be formed of the disease which has yielded to one or other remedial procedure, we cannot confidently make our choice when similar cases come before us. It would be much more satisfactory if we could replace the vague suggestions of experience, valuable as these may be, by the definite conclusions of knowledge.

Case 1.—*Sero-purulent Effusion into Ventricles of Brain—Obscure Symptoms.*

Emma B., aged 25, was admitted into the London Fever Hospital, under my care, April 19, 1871. She had been ill five days, the attack beginning with rigors and pains in the limbs. On admission she was in a state of rather high fever; skin hot; tongue furred, but moist; bowels not loose; pulse 102; herpes on lips and left cheek. On the 21st she perspired freely, and on the 22nd she felt better; the skin was cool, pulse 78, tongue cleaning. So far the case looked very like one of relapsing fever, but on April 23 severe pains came on in the legs, back, and head, heat of surface returned, the pulse rose to 114, and she vomited. These symptoms persisted, the pain in the head gradually becoming the prominent feature of the case. The bowels were rather loose for a few days, but no spots were seen.

May 2. — Acute pain in head, chiefly frontal; no sleep. Bowels quiet; tongue moist, with thick yellow fur; pulse 102. Expression that of suffering; brow contracted; much moaning; efforts to answer questions evidently painful. Blister applied to each temple.

5th.—Less pain in head for the last day or two. Found to be shivering. Extremities cold; face blue; pulse weak; motions liquid, and passed in bed. Hot bottles applied. Brandy (6 oz.) ordered.

6th.—Skin hot; pulse 114, weak; tongue moist, furred. Marked internal strabismus of right eye. Abdomen contracted.

7th.—Vomited this morning. No pain in head. Sleeps more. Takes fluid food well.

8th.—More vomiting. Quite conscious and rational, but very listless; lies on back with eyes half open; sleeps well. Bowels open loosely once a day; urine and fæces passed in bed.

10th.—Sweating freely.

11th.—Expression brighter; strabismus, which had varied in degree, now pronounced; pupils dilated and sluggish; has free use of limbs. Urine and fæces passed involuntarily.

15th.—No strabismus; pupils smaller. Bedsore rapidly forming over sacrum. Patient greatly emaciated.

28th.—Better. Quite sensible and brighter; apparently gaining flesh. Bedsores granulating. Strabismus again.

June 2.—Always says she feels better. Sores healing; less emaciation; convergent strabismus still present. Has been able to take very little of a chop ordered for her some days since.

14th.—Much in same state, but thinner; no appetite for solid food. Bowels loose; has a little cough; pain in head again complained of.

From this time she gradually became worse. The pain in the head was continuous and severe, so that she cried out on account of it, especially when she was disturbed. The emaciation became extreme, the bedsores worse, and she died worn-out on June 30. Until she sank into unconsciousness at the last, the intelligence was not obviously affected, and there was no paralysis. The eyes were repeatedly examined with the ophthalmoscope, but no morbid change was discovered. The choroid seemed to become anæmic during the last few weeks of her life.

Post-mortem Examination.—Thoracic and abdominal viscera small and anæmic, but free from disease, except that a few tuberculous nodules were found in the apex of the right lung. No affection of Peyer's patches. Brain: Upper surface of hemispheres anæmic. Fine injection of vessels of pia mater on under-surface; opacity about inter-pedunculer space, especially over the posterior perforated space, the minute vessels here entering the brain having a pink tinge, and the interspaces containing fluid. In right Sylvian fissure remarkably fine injection of minute vessels; pia mater in left Sylvian fissure anæmic. No tubercles visible to naked eye anywhere. Brain-substance firm; numerous vascular points; a general pinkish tinge. All ventricles—fourth included—large, containing a considerable quantity of turbid fluid; in the posterior cornu of the left lateral ventricle a distinct layer of pus. Lining membrane of ventricles, and especially of the third, thickened and gelatinous-looking. Choroid plexuses large and dark-coloured; vessels on under-surface of corpus callosum and venæ Galeni remarkably injected.

I regret that in this case a persevering mercurial treatment was not tried. My experience leads me to think it might have prevented a fatal termination. It was not adopted partly because the case was looked upon as tubercular and the patient was so greatly emaciated, partly because the temporary amelioration seemed to offer hopes of recovery.

Case 2.—*Basic Tubercular Meningitis.*

Rachel G., aged 20, a stout, florid young woman, a domestic servant, was admitted July 31, 1871. No definite information could be obtained as to her previous history, or as to the duration of her illness, except that she had been ill at least four or five days. The face was flushed, the expression that of suffering; she complained much of headache; she answered questions, but not readily. Pulse 108, weak; tongue—a dry brown streak down the middle, no rash.

August 1.—Lies on right side, with head thrown back—the head sometimes carried so far back as to overhang the edge of the bed. Face deeply flushed; moans a good deal and tosses. Takes no notice; when urged to do so can answer questions correctly, some requiring exercise of memory, but slowly and with obvious effort; soon fatigued, closes eyes and moans. No history of illness could be got from her. No paralysis; swallows badly; pupils dilated, equal; optic discs small, well defined, not abnormally red; vessels distinct; veins large; tongue furred, dry in centre; sordes on teeth. A dark-coloured loose stool had been passed in the morning.

2nd.—General condition much the same; a deep circumscribed flush on cheeks; ptosis of right eyelid; right limbs apparently more helpless than left, falling more helplessly when raised; no distinct paralysis. Pulse 100, weak: pupils widely dilated, equal. During the night of the 2nd she got upon her hands and knees, and beat the pillow with her hands, as if in agony. Died on the morning of the 3rd.

Treatment.—Chiefly blisters to nape of neck and scalp, and careful feeding.

Post-mortem Examination.—Head: Veins on surface of hemispheres very full; pia mater minutely injected, and of dark-red colour; a little opalescent effusion along some of the sulci. At the base, the optic commissure and tuber cinereum completely hid in firm yellow exudation, which extended for a short distance into the anterior median fissure, near the optic commissure. Both the fissures of Sylvius glued up by exudation, especially the left, in which the vessels were more injected; in both there were numerous minute opaque granulations on the vessels. Over the posterior perforated space the exudation was not quite so abundant or so yellow as about the optic commissure; the origins of both third nerves were involved in it. The exudation extended round the crus cerebri, especially on the right side. On the ridge of the cerebellum, again, was a layer of firm yellow lymph, extending down over the crus cerebri. Granulations and minute injection of vessels in calcarine fissure of both sides. Brain substance firm; much turbid fluid in ventricles; no softening or exudation.

Case 3.—Disease of Temporal Bone—Abscess in Temporo-sphenoidal Lobe of Brain, opening into Ventricle—Prolonged Suppuration in Ventricles.

The patient, a woman, aged 25, six months advanced in pregnancy, was admitted May 26, 1871. For thirteen weeks previously she had suffered from pain in the right ear, from which there was an offensive discharge, and in the back of the head; and she had recently fallen into the condition in which she was found on admission—*i.e.*, semi-conscious, delirious, unable to give an account of herself, or to answer questions. She would put out her tongue when told to do so, and followed people about with her eyes. She vomited frequently; the bowels were confined. Skin hot; pulse 120.

May 29.—Convergent strabismus of right eye, and this pupil larger. Right half of face, including forehead and chin, deeply flushed up to mesial line. Limbs moved freely, and a pinch on either arm felt. Patient lies on back or on left side. Still vomits frequently.

31st.—Lies on back, with head thrown back and face turned to left; screams when turned on right side; moans frequently, and occasionally there is retching or a peculiar hiccough, no actual vomiting; eyelids open, unwinking, and eyes dancing; convergent strabismus of right; this pupil larger than the left. On ophthalmoscopic examination, the optic discs were seen to be more pink, and the fundus of the eye generally more red, than usual; no other abnormal appearance. When drink given the eyes widely opened in peculiar way. Pulse 160; temperature 101° F.

She died at 3.30 a.m., June 2, the temperature at 9 p.m. on the previous evening being 105° F.

On post-mortem examination the upper surface of the cerebral hemispheres presented no abnormal appearance, and the sinuses were free. There was much turbid fluid about the base of the brain, on the right side, and especially beneath the tentorium. As the right temporo-sphenoidal lobe was raised from the middle fossa of the cranium, an abscess in its substance was opened by the adhesion of the surface and membranes to the outer part of the anterior aspect of the petrous bone at the situation of the tympanum. Here the bone was extensively carious, and the tympanic cavity was opened. The bone, dura mater, and surface of brain were blackened. The convolutions below the parallel sulcus were flattened by distension occasioned by the abscess, from which much thick yellow pus escaped. The pons and medulla were completely enveloped and concealed by a thick layer of yellowish-white consistent pus, which was not removed by a forcible stream of water. It extended as far forwards as the posterior perforated space, and downwards into the spinal canal; over the back of the medulla it was continued into the fourth ventricle, from which, in fact, the pus had issued. When the layer of pus was scraped off, the subjacent parts did not appear to be altered. The lateral ventricles and their cornua, the third and fourth ventricles, with the aqueduct of Sylvius, were enormously distended, and full of thick yellow pus. They were lined with a thick false membrane, and the ependyma, which was distinct from this, was thickened and tough. The septum lucidum was entire, and covered by a tough false membrane. Right corpus striatum of greenish-purple colour, nearly black, covered by thickened ependyma, superficially softened and discoloured, but not down to the fibres. Left corpus striatum discoloured on the surface, but not softened. Thalami not softened; covered by purulent false membrane lining third ventricle. Ventricular aspect of corpus callosum thickened, and rendered tough by false membrane; vessels large. Anteriorly in and near bend of Genu it presented for one-third of its thickness or more a close aggregation of deep-red dots, about the size of a pin-point, which formed a distinct layer. Scattered red points extended into the adjacent layers of fibres for a little distance. The abscess in the right temporo-sphenoidal lobe was situate near the junction of the posterior and middle cornua with the ventricle. It was about the size of a small walnut, and was lined by a thin, tough, black false membrane. It communicated with the descending cornu at about one-third of its length from the ventricle.

The history of the case was evidently disease of temporal bone, abscess in adjacent temporo-sphenoidal lobe of brain, opening of abscess into descending cornu of lateral ventricle, inflammation of the lining membrane of the ventricles, and suppuration leading to the accumulation in these cavities of an enormous amount of pus, which made its way out between the medulla and cerebellum, and enveloped the pons and medulla. What is most remarkable is the time during which the ventricles had been the seat of suppurative inflammation before death occurred. This must have been considerable from the amount of thick consistent pus they contained, and from the state of the walls of these cavities. We are accustomed to see the ventricles largely distended by an excess of cerebro-spinal fluid; but it is rare to find pus in such quantity, or to have such extensive inflammatory changes in their walls. Tho fact that these could occur without implicating more deeply the adjacent nervous substance is also worthy of note. Diagnosis and prognosis were here obvious, but no attempt was made to say beforehand where the abscess would be found. A blister seemed to give relief; but there was little room for treatment.

Case 4.—Enteric Fever, with Cerebral Complications.

A young woman, aged 20, was admitted May 17, 1871. No distinct history could be obtained of her previous symptoms, but it was understood that she had been at work as a domestic servant up to within a few days of her admission. She was extremely restless, and in a state of maniacal delirium, violent, threatening, and attempting to bite or strike, abusive and cajolling by turns, like an insane person; expression fierce and maniacal. Skin not hot; pulse 120; pupils equal, and acting naturally; no dulness over lungs; sibilant râles heard over entire front of chest.

May 18.—Still delirious, and had had a violent outburst in the night. Face sallow and chlorotic-looking, but conjunctivæ clear. Refused to put out tongue. Bowels not open. Castor oil ʒiij. given, a simple enema administered, and blistering fluid applied to nape of neck.

19th.—More quiet; face flushed; a little sordes on teeth; tongue dry and brown; bowels open freely; coughs a little at times, and sibilant râles heard over entire chest. Poultice applied.

20th.—Still delirious, talking nonsense in a busy, active manner, but not violent; bowels not open. Chloral given, as she did not sleep.

22nd.—More rational; tongue dry and black; bowels loose, and motions dark; very little sleep; taking fluid food well. At 6 p.m., lying on back, taking no notice; eyes closed; face pale; expression distressed; respiration 48, variable; pulse 130. She resisted with an impatient movement when eyes opened or hand moved. Abdomen full, not moving much in respiration; no red marks when nail drawn across skin. She died soon after midnight.

On post-mortem examination the small intestine presented the appearances characteristic of an advanced stage of enteric fever. Peyer's patches enlarged, prominent, and ulcerated, and some apparently entering on stage of repair; solitary glands large and numerous, some with ulcerated, worm-eaten appearance. Lungs congested. Other viscera of chest and abdomen healthy. Brain: Surface injected, but not to a remarkable degree. No opacity of membranes, no effusion, no visible tubercles. At various parts were seen patches of a bright-red colour, irregular in shape and size, but on the average about the size of a finger-nail; some had a dark-red point in the centre. The redness of these patches was not removable by washing or pressure; it was very superficial, not involving the brain substance. The patches were most numerous over the parietal and occipital lobes above, very few being seen in front of the sulcus of Rolando; they were numerous on the temporo-sphenoidal lobes, and present on the orbital convolutions. Brain-substance pale, with greyish tint of normal consistence; no effusion into ventricles. Surface of cerebellum paler than that of cerebrum.

The characteristic typhoid affection of the small intestine was quite unexpected in this case. The early head-symptoms were totally unlike those of enteric fever, and it is probable had a different mode of causation, being due to the vascular changes which had given rise to the superficial hæmorrhage seen on the surface of the convolutions after death.

CASE OF FOREIGN BODY IN LEFT BRONCHUS.

By HENRY BULLOCK, F.R.C.S.

On April 15, 1871, I was sent for to see E. D., a boy, aged 5, who, on the previous day, was supposed to have swallowed the bone top of a lead pencil. There were no symptoms at the time, his mother being only aware of it from the fact of the child having run in and said "he had swallowed the top of the pencil." The reason of my being sent for was that he had begun to breathe badly.

On examination, I found the respiration somewhat hurried;

there was a short cough, with slightly accelerated pulse. On percussing the chest there was little or no difference in the two sides, but to the eye the movements of the right side were exaggerated, of the left lessened, and on listening the respiratory sound was increased on the right, and nearly inaudible on the upper half of the left side. There was no urgent dyspnœa, and there was not, nor had there been, any spasmodic respiration or cough. Next day, there being no amelioration of the symptoms, my partner and self (having tracheotomy instruments in readiness) held the patient up by the legs with the head downwards without effect; snuff was also administered. We then determined not to interfere actively in the case. Gradually the child became feverish, and the cough increased in frequency, but did not become urgent, and never became spasmodic. As time went on the appetite became capricious and the fever increased, the pulse becoming rapid and the respirations frequent, accompanied by sibilant rhenchus on the left side, the right remaining free and normal. On some days he was tolerably well, and, except that the physical signs remained, it was hoped that there was some error in the diagnosis. After a time, however, the symptoms increased in severity, and assumed more or less of a hectic character—that is to say, he became emaciated, had night-perspirations and flushed face. Diarrhœa came on, and purulent expectoration. There was some bronchial breathing, and dulness on percussion, with mucous râles. All these symptoms went on until there seemed but little hope of a favourable termination to the case, when suddenly, on August 31, he was seized with a violent fit of coughing, and expectorated nearly a pint of muco-purulent fluid, followed by the foreign body. Since, there has been a rapid diminution of all the unfavourable symptoms, and except that there is still less distinct breath-sound on the left than on the right side, and slight cough with some emaciation, the child is, to all intents and purposes, well.

The case is perhaps worthy of record from the fact of the foreign body having entered the left instead of the right bronchus, and from its having caused at first so little local or constitutional disturbance. The question as to the advisability of performing tracheotomy, and searching for the foreign body by means of various instruments, arose, and was rejected for the following reasons—viz., that the shape of the substance was against its lodging in the larynx if expectorated, which also, with the physical signs, led to the belief that it was tolerably firmly impacted in a bronchial tube; and that, even if its exact situation were ascertained, it would be extracted with extreme difficulty, if at all, the balance of probability being in favour of doing serious injury to structure rather than of removing the foreign body. Another interesting feature of the case was the near approach of the general symptoms to those of pulmonary phthisis, the history of the case and the absence of certain physical signs alone negativing such a view of the case, which, on the other hand, was upheld by the child's previous delicate state of health, and his present strumous appearance. The case, on the whole, shows that where there is no great urgency of symptoms it may be—nay, is—justifiable to abstain from active interference.

OPHTHALMIC PRACTICE IN BOMBAY.

By GEORGE WATERS,
Assistant-Surgeon, Bombay Army.

The following brief summary of the work done in the Cowasjee Jehanghir Hospital during the year ending December 31, 1870, with occasional remarks, may not be altogether devoid of interest to those who turn their attention to the study and practice of ophthalmology. In point of the number of patients treated and operations performed, this Hospital stands unequalled by most others of its class; indeed, so far as we are aware, the Royal London Ophthalmic Hospital, Moorfields, is the only one that has a greater attendance of patients—the number of operations performed in the former being exactly 600, and the entire number of cases under treatment during the above year close upon 6000, including those seen in both the in- and out-door departments. No less than 2150 cases are classed under "diseases of the conjunctiva." Amongst these 2150 is to be found almost every affection to which the conjunctiva is liable, simple conjunctivitis being by far the most common. The predominant sources of this class of ocular lesions in Bombay are chiefly found to be bad ventilation, want of cleanliness, insufficient protection from the sun's rays, and contagion, in the order mentioned. In many instances before the patient comes to Hospital the disease has gone on to granular conjunctivitis, chiefly affecting the palpebral surface of the upper lid, commencing in hyperæmia of the papillæ. For the reduction of these granulations, solid sulphate of copper is our most reliable weapon. In very severe or obstinate cases we use sulphate of copper, mitigated nitrate of silver points, and ten-grains-to-the-ounce solutions of nitrate of silver (applied with a camel-hair brush), interchangeably avoiding the latter, however, where weakness or irritability of the cornea is detected, as its application in such circumstances would most probably incur ulceration of the corneal tissue.

Next in point of numbers come diseases of the cornea—1110 in all, including keratitis and its consequences—viz., opacity, staphyloma, etc. This class of diseases affects people of all ages pretty equally; and defective nutrition of the corneal tissue, owing to general debility, brought on in most instances by poverty and consequent inability to procure sufficient nourishment, appears to be its predominant source in Western India. We also not unfrequently meet with the chronic interstitial keratitis arising from syphilis, the vascular keratitis following conjunctivitis, and, lastly, the traumatic keratitis the result of injury.

Although we vary the constitutional treatment of this class of diseases according to the exigencies of individual cases, our great sheet-anchor is concentrated nourishment in some form or other, the choice of which must be regulated by the taste and actual requirements of a certain proportion of patients; and, unfortunately, owing to caste and other influences, the prejudices of the remainder. The local treatment in the acute stage, being what is usually adopted in Europe, calls for no remark. The feature in the treatment peculiar to the practice of ophthalmology in the East is the frequent necessity for making artificial pupil; and this is accounted for by the fact that in many up-country districts Medical aid is either not procurable or, through ignorance, not solicited until the disease has run on to ulceration, the necessary result of which is opacity; and those opacities we meet with, curiously enough, almost invariably obscure the pupil, thus involving the necessity of making an opening in the iris behind a clear portion of cornea, in order to procure vision. We usually perform iridodesis when there is sufficient pupillary margin adjacent to where we wish to make the breach in the iris; but when we have reason to suspect the iris has undergone degenerative change, or when it is adherent to the lens capsule by synechia, we make artificial pupil by excision.

Under the heading "diseases of the lens and capsule," 517 cases are classed. One hundred and one cataracts were extracted. Of the remaining 416, the majority were cataracts in course of formation only; others were cases of opaque capsule, the lenses having been previously removed; and a few patients, though possessing maturely formed cataracts, were discharged as unsuitable for operation, their eyes being otherwise in a pathological condition. Of the extractions, twelve were by suction by Bowman's syringe, the subjects of operation being chiefly young, and the disease in most instances traumatic in origin. Six cataracts were removed by ordinary linear extraction. The operation for solution of cataract was performed nine times, and although all the cataracts thus treated were soft in character, the best result could only be called indifferently good.

This mode of dealing with cataract has quite recently been highly recommended by an ophthalmologist of much repute in England. It seems to us, nevertheless, with regard to natives of India, to be inferior to any of the other methods at present had recourse to, for although every detail in the operation has been carefully attended to by Dr. Sylvester, the results have seldom been anything but meagre; whereas 95 per cent. of the cataracts extracted by him in the same year by Von Graefe's method were successful, and the same when scoop extraction was performed. For the extraction of the remaining seventy-four cataracts, Von Graefe's modification of the linear method and scoop extraction were had recourse to, the latter operation more frequently than the former.

Although the ratio of success following each of the methods last referred to was exactly the same, post-extraction operations for dealing with opaque capsule occluding the pupillary area were most frequently necessitated where scoop extraction had been performed. Probably this is accounted for by the fact that the incision made for the exit of the lens is as a rule much smaller in the scoop than in Von Graefe's operation; probably, also, by the fact that the insertion of the scoop behind the lens occasionally causes detachment of more or less posterior capsule, which, not being removed with the lens, and being highly transparent at the time, escapes observation, and

remains unnoticed until subsequent shrivelling renders it opaque; whereas, if Von Graefe's operation be performed with ordinary dexterity, no scoop is required. Regarding the comparative merits of the two operations, we refrain from expressing an opinion until further experience shall have given us data sufficient to justify us in doing so.

Touching the use of chloroform for cataract extraction, we unhesitatingly endorse Mr. Dixon's views on the subject as stated in his article on diseases of the eye in "Holmes's System of Surgery." In the Cowasjee Jehanghir Ophthalmic Hospital anæsthesia is very rarely required for the removal of cataract; and, contrary to the rule amongst Europeans, natives of India rarely ask for "medicine to make them sleep." Whether it be from a less highly organised nervous system, or a more energetic exercise of the will in Asiatics than in Europeans, we are not prepared to say; but we have no hesitation in saying the former afford many more facilities for operating without chloroform than the latter. We look upon this as another feature peculiar to ophthalmic Surgery in India, and one which gives us all the advantages gained by the exhibition of chloroform, while it enables us to avoid the ill-effects which the use of that anæsthetic frequently entails.

Four hundred and fourteen patients were treated for disease of the choroid and retina. The ratio the acute cases bore to the chronic was as one to three, and the symptoms of the former were frequently concomitant with those of cerebral disease or syphilis, or both, while a few cases could not be traced to their origin; in the subacute and chronic cases less difficulty was met in discovering the cause of disease. Finding that the great majority of persons suffering either from chronic choroiditis, chronic retinitis, or progressive atrophy of the optic nerve were students, or they belonged to some occupation requiring the constant and close use of the eye, we naturally regarded the prolonged examination of minute objects as the most fertile source of these diseases, and concluded these affections must as a rule commence insidiously and almost painlessly, as otherwise we should have seen a greater number of cases at an earlier stage.

Two hundred and twenty were under treatment for various injuries of the eye. Little can be said of this class in general terms, and, although many cases were interesting, anything like an account of each would occupy too much space.

Diseases of the iris, in all 314. Syphilis is by far the most frequent cause of iritis amongst natives of India, especially of Bombay, and of the above number not a few are classed sequelæ of iritis that had a syphilitic history. The treatment of sequelæ of iritis, it may be here stated, aids considerably to swell the number of operations performed in this Hospital, artificial pupil being so often necessitated in order to procure vision where the original pupil has become occluded by organised lymph, such patients not having presented themselves for treatment sufficiently early. It also gives additional grounds for regarding the frequency with which artificial pupil requires to be performed as particularly characteristic of ophthalmic practice in the East.

Diseases of the eyelids, 394 in all. Trichiasis, ophthalmia tarsi, and cysts of the lid, in the order mentioned, embrace more than two-thirds of the whole number. With us the treatment of trichiasis pretty generally resolves itself into an operation, and for this purpose we are most in favour of Von Graefe's plan of splitting the tarsal margin, and taking means permanently to elevate the outer portion with the peccant cilia, which are thus retained, and the disfigurement which would result from their removal avoided. We seldom or never have recourse to scalping of the lids. We find Haynes Walton's operation useful where there is superfluous skin on the lid; also, in cases where the cilia are only slightly and generally peccant, with a mild degree of entropium as a complication. In cases of long-standing trichiasis we often perform canthoplasty as a preliminary step in the treatment, as it relieves the irritability of the cornea due to pressure of the contracted lids. We find the operation of canthoplasty much facilitated by inserting the armed needles, and pulling them through, leaving the threads ready for ligature prior to using the knife, the difficulty of engaging the mucous membrane with the needle when much bleeding is present being thus obviated.

Epilation of the peccant cilia as a means of curing trichiasis has, in our experience, proved utterly futile, the hairs invariably reappearing in or near the site of the extracted ones; and even when the bulbs are previously inoculated with solution of caustic potash, unless the trichiasis be very limited, much benefit seldom results.

Ophthalmia tarsi, we find, is more materially and rapidly benefited by exhibiting cod-liver oil internally, and applying a weak mercurial wash locally, than by any other means. This may easily be understood, from the fact that most of those who come under our observation so suffering are ill-fed, and frequently scrofulous, whilst not a few are hereditarily syphilitic.

Fifty-five cases of lachrymal obstruction were treated during the year 1870, and almost as frequently Bowman's operation was performed with complete success.

In order not to occupy too much space, I have merely noticed in general terms those diseases which form the great bulk of our work in this Hospital, my object being chiefly to afford data to those desirous of obtaining information regarding the relative frequency of the most common affections of the eye, and the causes of their occurrence.

Bombay.

HYDROPHOBIA IN DOMINICA.

By JOHN IMRAY, M.D.

The circumstances under which a disease first makes its appearance in any country cannot but present points of interest, and may fairly claim to be placed on record. The interest is certainly not lessened when so frightful a disease as hydrophobia is in question. This terrible malady has hitherto been of rare occurrence in the West Indies. So far as this island is concerned, during a lengthened residence I have never seen or heard of an instance of the disease, nor is there even a tradition of its having been met with at any time.

I give the details of the following case that I have had charge of in the Roseau Infirmary, being remarkable as the first that has come under Professional observation in the island, and also as to the uncertainty that remains in regard to the source from whence the morbid poison was derived, which doubtless gave rise to the attack.

The history of the case previous to admission into the Infirmary, as nearly as possible in the language of the wife of the unfortunate man, is as follows:—

"On Friday, July 28, 1871, M. N. went to work in his provision garden. When he had finished putting out some guano, he felt something itching his right hand, and he began scratching it; but when he had done with the guano he went and cut a bundle of wattles. When he got home he said to me (his wife), 'My hand pains me; I do not know what is the matter. Nothing hurt me, only I scratched it; but now it begins to pain me.' He complained during the night of the arm, and felt as if there was something running up the arm to the shoulder.

"All Saturday he stayed at home, complaining of his arm. When I (his wife) came home from the market in the evening, he complained of headache and fever; he ate a little pounded plantain and fish. During the night the pain of the arm increased, and on the Sunday morning I applied some leeches. All Sunday he complained of the pain of the arm and of the head, chiefly on one side (that of the affected arm), and of fever, and a trembling came over him. In the morning I gave him a cup of coffee; he carried it trembling to his mouth, drank a little, and said he could not take any more. He ate a little bit of bread. During the day he said his hand trembled when he took water, and he did not know what was the matter with him; it seemed as if there was something inside afraid of the water; he felt as if there was a bar across his throat and chest, and his heart jumped up whenever he tried to drink.

"On Sunday night he was very restless; called for water often, and when brought ordered it to be taken away. 'The thing inside,' he said, 'don't want to see water.' Said he was thirsty and hungry, but could not drink or eat. A blister was applied to the arm.

"On Monday morning some panada was made for him. He twice took some, and 'fought with it' in his mouth, and a little went down. He put a little sugared water in his mouth, gargled for some time, and a little was swallowed. He was in bed all day, or changing about from place to place. He complained of weakness and faintness. He then said he could take no more water from a cup, but asked me to fill a small phial, and let him try. Then he said, 'Don't give it to me to my face, but bring it behind my back and give it to me.' He took the phial quickly from me, made a run, and then, struggling with himself, carried it to his mouth, poured ont the water hastily, and swallowed it with great difficulty. On Monday night he was restless, and did not sleep, always crying out he had a 'faintness.'

"On Tuesday he said he could not take anything more. The same day he was sent to the Infirmary. He never said he had

been bitten by a dog, but spoke about some ants having crawled on his hand."

Tuesday, August 1,—M. N., admitted into the Roseau Infirmary; a tall, spare, strong-looking black man, apparently between 40 and 50 years of age. He is extremely agitated and frightened; his eyes wild and staring. He speaks rapidly and eagerly; says he is very ill, but does not know what is the matter with him; describes minutely his sufferings, and hopes I shall be able to do something for him. Surface cool; free perspiration; tongue moist, with yellowish coating; pulse quick. His great restlessness and agitation were quieted somewhat by speaking encouragingly and soothingly to him. He stated that while putting out some manure in his grounds ants crawled upon his hand; he brushed them off, but his hand and arm hurt him afterwards. He does not remember being bitten by a dog, or any other animal. Some thin arrowroot ordered; part taken with great difficulty. Any attempt to swallow is accompanied with most distressing agitation; he rises from his bed with terror in his countenance, calls for people to hold him, and unless there are two or three persons to take hold of his arms and body he will not make the effort. With the left hand he suddenly grasps the cup or glass with a great effort, and, assisted by someone also holding the vessel, it is brought to his mouth, the head is thrown back, a quick gulp of the liquid is taken, and with a most painful struggle it is swallowed. This is repeated two or three times, and he sinks down in a state of utter exhaustion, and bathed in perspiration. On admission an enema containing liq. opii sedativ. ʒjss., æther sulphur. ʒij. was administered, and he remained quiet after this for a short time. In the evening he was able to swallow a draught with half a grain of muriate of morphia. He slept for several hours after this draught. Towards morning he awoke, sprang from his bed, rushed out of the Infirmary, and ran to his house at the outskirts of the town, wading through a stream to reach it. Soon after he was brought back by his wife. He was then in a state of great agitation and terror. He swallowed a draught containing a quarter of a grain of morphia, which had a slightly quieting effect. The bowels had not been acted on. An enema with castor oil, turpentine, and sulph. magnes. was ordered, which had no effect. Towards evening he became very violent, and from time to time required to be restrained by several men holding him. Every attempt to swallow was accompanied by the phenomena already described, only with augmented violence. About 11 o'clock p.m. I administered to him a small glass of sangaree (wine, water, sugar, and nutmeg), which he thought he would try. In this was dissolved forty grains of hydrate of chloral. I held the glass to his lips while the fluid was swallowed in repeated portions. The unfortunate patient took the draught mouthful by mouthful with great resolution, but with pain, horror, and agitation very distressing to witness, the whole surface being almost washed with perspiration. He would not even look at the glass until he had been firmly held by several persons. The only effect of the chloral hydrate was to make him a little drowsy. The same violent paroxysms recurring at short intervals, another dose of fifteen grains of the chloral hydrate was given, but with no good effect; the paroxysms still continued, and he died exhausted about eight o'clock on the morning of August 3.

The nurse stated that at one time, when he appeared "dozing," she poured a spoonful of water into his mouth unknown to him, and he instantly jumped up in great alarm.

There was no post-mortem examination. We have here presented a group of symptoms, passing on rapidly to a fatal termination, that are seen in no other disease but hydrophobia; and yet the patient, although repeatedly questioned, denied that he had ever been bitten by a dog or any other animal that he could remember. The ants that he spoke of as crawling on his hand, causing at the time itching, followed afterwards by pain, can only be considered a coincidence, and not a cause. But a feeling of pain being experienced in the hand, then running up the arm to the shoulder and neck, with the subsequent train of morbid phenomena, clearly point to the probability of the virus having found its way into the system from the infliction of some slight injury by a rabid animal at a former time, which may have escaped the man's attention, or have gone from his memory. No cicatrix or mark could be detected on any part of the hand or arm. It is, at all events, vastly more probable that the disease was contracted in this manner than that it originated spontaneously in the system. This supposition (of inoculation by specific virus) is greatly strengthened, if it may not be assumed as true, by the undeniable fact, as will presently be seen, that rabies did exist in the island for at least six months previous to the unfortunate man's death, and doubtless many months before. That some morbid agency very fatal in its results had been at work among the canine race during the last twelve or eighteen months, was very distinctly proved by the great number of dogs that either died or were destroyed in the town of Roseau and other parts of the country. Rabies among dogs, being unknown in the island, was not suspected at first by anyone to be the cause of the mortality; but afterwards the symptoms were so suspicious that serious misgivings were entertained by many persons, who destroyed their dogs as soon as they became affected with the prevailing distemper. It is unnecessary to detail the symptoms; they were in several instances that have been brought to my notice simply those of rabies canina. There can be no question now that this horrible disorder did really exist to an alarming extent in the colony; and it is surprising that more deaths from hydrophobia have not been the consequence.

Although the case of hydrophobia above described is the first that has come under Professional notice, it is not the first that has occurred in the island of late. About two months ago it was reported that two children had died of the disease on the windward side of the island. The locality being remote, no Medical assistance could be obtained; but the symptoms were of such a character that no doubt was left as to the nature of the malady.

A dog bit four children on the same day (some time in April last). Six weeks after, one of the children was taken ill, and died in two or three days with all the symptoms of hydrophobia. A week after this another of the children was attacked, and died in a similar manner. The other children have as yet escaped. On application to the manager of the property to windward, where hydrophobia first made its appearance, I obtained a clear and intelligent statement of the facts. It appears, in the first place, that the disease (rabies) did not originate in the quarter, but was introduced. About the beginning of the year a dog was taken from an estate close to the town of Roseau, on the leeward side of the island to the windward locality where the disorder first broke out. This animal showed symptoms of rabies about a week after its removal to the district, though not recognised at the time. It was seen snapping and biting furiously at other dogs, and subsequently made its way to the place near the town from whence it had come, where it died. The distemper now spread among the dogs in the quarter. Cattle in the pasture, sheep, and pigs were attacked by the rabid dogs. Mr. Robinson states that about twenty dogs died on the estate that he manages, and that many were killed as soon as the symptoms of the disease were observed. He describes the symptoms very clearly, thus:—"I noticed carefully four of my dogs on the first appearance of the disease. They refused food; showed great restlessness and seeming anxiousness; then spasms of the throat; a hoarse cough. They attacked everything in their way—man or beast. The eyes are unusually bright on the first appearance of the disease, but after two days or more a thick veil seems to come over them. I noticed this particularly in two dogs that I had chained." Mr. Robinson gives a very good account of the two children that died in the quarter; both well-marked cases of hydrophobia. The details need not be repeated.

This dreadful disease has not been confined to Dominica, it seems, for I observe in the island newspapers that two deaths have lately taken place in Barbadoes from hydrophobia, and one death from the same cause in Trinidad, and there may be other instances among the neighbouring colonies that I am not aware of.

Is rabies always the result of the inoculation or absorption of a specific animal poison, or does it originate *de novo*, from time to time, among the canine or feline races? This is a question of much importance, and may still be considered *sub judice*, although the weight of authority, so far as I know, preponderates on the side of propagation in all cases by absorption of a morbid virus. The first instances of hydrophobia in this colony appeared in a remote and rather inaccessible part of the island, and it might not unfairly have been concluded that the disease originated in the locality, had it not been possible to trace its introduction into the quarter. In like manner I believe it to be more than probable that, had all the facts and circumstances been observed, its introduction into the island would have been made equally clear. But it was not suspected at first that rabies could be brought to, or even exist in, the country.

The question of origin has much interest in a scientific point of view, but it has also a very important practical aspect. If we accept the opinion that rabies can only be propagated by a specific virus conveyed from animal to animal by inoculation or imbibition, then the inquiry naturally arises—Is it possible

to find means for effectually excluding the disease? or, if it has appeared, can it be quickly extinguished?

In large and populous countries it would, perhaps, be difficult, if not impossible, to prevent the introduction of rabies by any restrictive measures; nevertheless, the success attending the stamping-out process in arresting the spread of cattle disease shows what can be done in this direction. In these West Indian colonies, however, the disorder might be almost with certainty excluded, or at once extinguished, by rigidly enforcing proper precautionary measures to prevent its introduction, and stringent internal regulations to arrest its extension. Unless the various governing bodies of these colonies consider the matter of such importance as to demand legislative action, but little in the way of prevention can be effected. The case may be thus put. A certain amount of trouble and a small expenditure of money are to be balanced against the probability of a certain number of human beings perishing by a horrible death. Taking it, then, on the lowest ground—that of probability—it does certainly appear that ample reasons exist for prompt and decided legislative intervention on the subject.

I am glad to find that an Act for the protection of the inhabitants from rabid dogs has already passed the Legislative Chamber of this colony.

Dominica, West Indies.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

UNIVERSITY COLLEGE HOSPITAL.

As stated last week in a short notice of the Surgical practice in some of the wards of this Hospital, the carbolic acid treatment of wounds is having fair and extended trial. The following cases, for notes of which we are indebted to Mr. E. J. Ramsay, House-Surgeon, have been all treated throughout antiseptically:—

CHRONIC DISEASE OF KNEE-JOINT—DIVISION OF HAMSTRING TENDONS—SUBSEQUENT AMPUTATION OF THIGH—ANTISEPTIC TREATMENT.

(Under the care of Mr. BERKELEY HILL.)

Robert S., aged 33, a labourer, the son of healthy parents, and of good family history, was admitted on June 28. About sixteen years ago he first noticed his left knee a little swollen; this slowly became larger and soft to the touch, and was painful and tender on pressure. For two years he continued to follow his occupation, but then went to Hastings Infirmary for several weeks; after this he resumed his work, and continued at it up to six years ago, when the knee became contracted, and for the last five years he has not walked upon it at all. On admission he could not bear the slightest pressure upon the joint; the muscles of the thigh and leg were much wasted, and the tendons behind the knee much contracted. When lying on his abdomen the right buttock was very prominent and tense, and the left buttock flattened and ill-defined. On standing the left knee was projected forwards, the toes of the left foot scarcely touched the ground, and were close to the heel of the right foot. The swelling of the left knee was nodulated here and there, very hard, and fourteen inches in circumference, the middle of the thigh measuring twelve inches, and the leg nine and a half inches. The patella was somewhat external to its usual position, and not distinctly felt. The inner side of the head of the tibia was enlarged, as also the inner condyle of the femur, and between the two was felt a slight groove.

July 7.—The patient being under chloroform, Mr. B. Hill proceeded to straighten the leg, and for this purpose performed tenotomy of the hamstring muscles. This allowed the limb to be brought nearly into the straight line, though the head of the tibia was somewhat posterior. The leg and thigh were then enveloped in cotton-wool, and placed on a back-splint.

August 1.—Limb put up in McIntyre splint.

15th.—There is now some ulceration at the back of the knee-joint; and another spot on the outer side of the upper part of the leg in the situation of a blister is also ulcerating.

30th.—The joint is not at all improving, and the patient is rapidly losing strength; so that Mr. Hill recommended amputation. This was performed by a long anterior flap (from which the patella was afterwards dissected out) and a short posterior one, and the femur sawn through immediately above the condyles. As some hæmorrhage was taking place from the smaller vessels the stump was wrapped in carbolic gauze, and the flap not stitched together until four or five hours afterwards. Previous to cutting the flaps, the lower part of the thigh and upper part of the leg were rubbed with carbolic oil, the instruments washed in carbolic water, and the carbolic spray made to follow the knife throughout.

31st.—Wound dressed antiseptically in the evening. Pulse 128.

September 2.—A little thin but non-offensive discharge from the stump. Spoon diet. Pulse 112; temperature 99·8°.

4th.—Sutures giving way, and the edges of the wound a little gaping; some ordinary strapping was used to pull the edges together, and the carbolic dressing, as usual, afterwards applied. Discharge very free, but non-offensive. Temperature 100·4°; pulse 108; is feeling very well.

5th.—Wound still gaping, owing to giving way of fresh sutures; discharge much less; is doing well. Temperature 100°; pulse 100. Antiseptic dressing and spray used in the treatment.

10th.—The wound is now granulating rapidly; his general health is very good, and he takes food well.

RECURRENT CANCER IN CICATRIX OF BREAST—REMOVAL—ANTISEPTIC TREATMENT.

(Under the care of Mr. BERKELEY HILL.)

Caroline H., aged 51, was admitted into University College Hospital on August 29. She had led a sedentary life, but always enjoyed good health till two years ago, when she had the left breast removed for a cancer of slow growth. She rapidly recovered from the operation, and remained well till three or four months ago, when she noticed a small lump in the old cicatrix. On admission there was, near the sternal extremity of the cicatrix, a small tumour, to which the skin was adherent, and of a deep-red colour, which occasionally was the seat of severe shooting pain; below the old cicatrix were two or three smaller lumps, free, however, from adhesions to skin or deeper structures; and in the left axilla was a solitary enlarged and hardened gland, which moved up and down with the arm.

August 31.—Mr. B. Bill, by two incisions, removed a large oval-shaped piece of the integument and subcutaneous tissues, thereby excising together all the cancerous nodules in the pectoral region; then subsequently removed the enlarged axillary gland. This was done under a spray of carbolic acid and water (one to forty parts), supplied by means of Richardson's apparatus for local anæsthesia. The edges of the wound were then brought together by sutures, previously steeped in carbolic acid, and the whole covered by several layers of Lister's carbolic gauze, and a piece of protective oil-silk over this.

September 1.—Wound dressed under a spray of carbolic acid. A quantity of sanious fluid and a large black clot were found beneath the dressing; all, however, being quite free from odour. Fresh carbolic gauze was applied.

4th.—The same mode of dressing resorted to. A small quantity of discharge free from odour had escaped from the inner half of the wound, the edges of which were gaping nearly to the extent of one inch.

6th.—The wound healing rapidly.

STRANGULATED FEMORAL HERNIA—OPERATION—SAC NOT OPENED—ANTISEPTIC TREATMENT OF WOUND.

(Under the care of Mr. BERKELEY HILL.)

Ann W., aged 44, a married woman, was admitted on August 31. She stated that her employment has required her to stand a great deal and to lift heavy weights. She is the mother of four children, and has always enjoyed good health. About 11 p.m. on August 28 she was seized with severe pain across her abdomen, and within half an hour afterwards she began to vomit, and during the next day the vomited matter was very offensive, smelling "like her motions." This continued up to the time she was operated on, sixty-seven hours after the first symptom of strangulation commenced. Her bowels had acted about an hour after the first seizure, but since then had passed neither flatus nor fæces. The nature of the case had not been diagnosed before her admission, though she had been treated for intestinal obstruction; the aid of ʒjss. of castor oil, four pills, three bottles of medicine, and about twenty enemata having been employed in her treatment.

On admission there was a small tumour, about the size of a walnut, in the left femoral region, which she was not aware of herself. She was vomiting stercoraceous matter.

Chloroform having been administered, Mr. Hill made a vertical incision, about an inch long, at the upper part of the

tumour, and reached the hernia as it projected through the saphenous opening, at which point was the constriction. This he divided, and then, by gentle taxis, the contained bowel was readily returned into the abdomen. The operation was performed under the carbolic spray, the edges of the wound united by carbolised sutures, and afterwards dressed with the carbolic gauze.

After the operation the patient was sick, but the vomiting soon ceased, and within six hours of the operation the bowels operated, flatus having a few hours previously escaped.

September 5.—The bowels had not acted since the evening of the day of operation. A dose of castor oil was therefore given, and this morning the bowels have been moved three times. She has been fed on spoon diet, eggs, and four ounces of brandy. The wound has been all along treated strictly antiseptically.

8th.—The wound is quite healed, and the patient has permission to leave the Hospital.

MIDDLESEX HOSPITAL.

VESICO-VAGINAL FISTULA—FAILURE OF ACTUAL CAUTERY—CLOSURE BY OPERATION.

(Under the care of Mr. HULKE.)

THE diagnosis of vesico-vaginal fistula is usually simple, but when the opening is a very small one, and high in the vagina, it may, as this case would appear to show, be overlooked, even by competent observers, and the stillicidium assigned to some other cause.

For the notes of this case we are indebted to Mr. Davidson, House-Surgeon:—

In the beginning of July, a healthy-looking countrywoman, aged 35 years, sought relief at the Middlesex Hospital for stillicidium urinæ, dating from her first and only labour eight years before. She said that the labour was a difficult one, that instruments were used, and that she was first aware of the stillicidium three days after her confinement. Three weeks later she went into a metropolitan Hospital, where she stayed for three months. Subsequently she attended a public Dispensary for a long time, and went into another Hospital for seven weeks. She failed to obtain any relief, and in none of these institutions was any operative measure proposed to her, or, so far as she knew, practised.

When up, the urine dribbled away continuously, but when lying down she was able to retain it for some minutes. Dr. Hall Davis discovered a very small opening communicating between the vagina and bladder, which with difficulty admitted a probe, and was some distance from the outlet. She was transferred, therefore, to the Surgical wards for operation.

On July 18, the fistula having been brought well into view with a Bozeman's speculum, Mr. Hulke touched it with the actual cautery, hoping that, as the opening was so very small, this might suffice for its closure.

After this the stillicidium ceased entirely until July 22, when it recurred, and, as after ten days it still continued, Mr. Hulke pared the edges, and closed it with three fine sutures of fishing-gut—a material which Mr. Hulke considers has all the advantages possessed by wire, without its drawbacks. Twelve days later the stitches were removed, and the fistula thoroughly healed.

BENIGN FUNGUS OF TESTIS REPLACED WITHIN THE SCROTUM.

(Under the care of Mr. HULKE.)

[From notes taken by Mr. DAVIDSON, House-Surgeon.]

A boy, aged 6, was admitted into the Hospital in July with a fungous protrusion from the left testis through a V-shaped aperture in the skin of the scrotum. It was a granulating button, with broad top and narrow neck, about the size of a small nut.

On August 16 he came under the care of Mr. Hulke, who, as other measures had failed, detached the skin from the body of the testis, replaced the fungus, and closed the wound over it with wire sutures. The incision healed almost by first intention, and at the end of the month the boy left the Hospital with an apparently healthy scar.

CASE OF POISONING BY CORROSIVE SUBLIMATE—DEATH FROM COLLAPSE.

The following notes have been communicated by Mr. R. H. Lucas, the Resident Medical Officer:—

S. D., aged 39, a whitesmith, admitted September 5, 1871. Half-an-hour before admission patient swallowed a large quantity of corrosive sublimate dissolved in vinegar.

11.30 a.m.—State on admission: Complains of considerable tightness and burning sensation in the throat and gullet, and of a burning pain at epigastrium. Countenance pale and anxious, and features pinched. The surface of body is cold and covered with a clammy sweat. Vomits freely a large quantity of dark muddy-looking material mixed with half-digested food. Pulse small and rapid; respirations quick and catching. Ordered the whites of several eggs to be given immediately.

2 p.m.—Continues to vomit freely; the vomited matter consisting now mainly of the white of egg mixed with white curdy material. Has now considerable difficulty in swallowing. Pain has extended all over abdomen, which is somewhat tympanitic on percussion and exquisitely tender to touch. Pulse very rapid and weak. Extremities quite cold, and perspiration profuse. Has passed about one ounce and a half of urine. Brandy and beef-tea injection, to be repeated in half an hour.

3 p.m.—Patient is rather drowsy. Has vomited a little mucus mixed with blood. Considerable purging of fluid matter containing a large quantity of blood.

4 p.m.—Continues to get more drowsy. Purging of bloody matter continues. Pulse cannot be felt; face livid; and surface of body quite cold. The patient died at 4·30.

Autopsy.—The whole of the intestinal canal presented a truly characteristic appearance of the action of a powerful corrosive irritant. In the mouth, soft palate, and commencement of œsophagus, the mucous membrane was merely whitened, softened, and to a great extent denuded of its epithelium. Lower down, however, and extending to the cardiac orifice of the stomach, the entire mucous lining was peeled off and hung in shreds, so completely disintegrated as scarcely to bear the slightest touch. The stomach contained a few ounces of thick grumous blood. Its mucous membrane presented a dark mottled appearance, produced by effusion of dark blood in patches beneath its surface, usually on the rugæ, the sulci between which being of a pale colour, but still intensely injected and much softened. The intestines throughout were acutely inflamed, and contained a large quantity of grumous material, chiefly consisting of blood. Nowhere was there any perforation. The bladder was firmly contracted. Kidneys and lungs much congested.

The principal points of interest in this case appear to be, the rapid supervention of death from collapse before salivation set in, the almost entire suppression of urine, and the acutely inflamed condition of the whole intestinal tract.

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Medical Times and Gazette.

SATURDAY, SEPTEMBER 23, 1871.

DANGEROUS THERAPEUTICS.

EXAMPLES are not wanting to warn us from time to time of the sharp-edged nature of the tools which we nowadays habitually handle. It has been asserted with some degree of truth that therapeutics have not kept pace with pathology in the advance

of Medicine as an art and science; and yet those who remember the series of articles on Therapeutic Advance published some time ago in these columns, must admit that therapeutics, if slow in onward and upward progress, have neither been retrograde nor at rest. It is not, perhaps, so much in the discovery of new remedies as in the revision of the old that progress has been made, although something has been done in that way, too. It is, above all, in fixing on remedies of known efficacy, in using these singly and in a form sure to take effect, that we have made headway. But the very power which has been entrusted into our hands necessitates an amount of care which it is not everyone who is willing to employ, or, indeed, in all instances knows how to take it.

But the other day the public were shocked with the death of Mr. Fowler's child, as the result of an external application prescribed by Dr. Meeres. The jury returned a censuring verdict, and Dr. Meeres's peace of mind is destroyed. Yet the same prescription has been used hundreds of times, not only without harm, but with positive advantage. Nevertheless, the one fatal case shows that its safe use depends not merely on careful diagnosis of the appropriate condition in which to use the remedy, but also on the necessity of carefully inquiring after any idiosyncracy in the patient before using drugs of such potency.

Again, the other day we happened to hear how a Medical Practitioner, whose skill is undoubted, being called to a patient troubled with restless nights, promised her one good night's sleep, gave her a small quantity of morphia subcutaneously, and in the morning she was dead—not, perhaps, as the direct result of the morphia injection, although that undoubtedly would have a certain influence in determining the fatal result.

Accidents by chloroform are too notorious to require more than reference, but the fatal effects of chloral are not so well known; and yet we question whether, in the long run, chloroform will count as many victims as chloral. The dangers of the former are known and dreaded, those of the latter are yet a mystery to many; and whereas chloroform is rarely, if ever, applied except by the skilled Physician, chloral has come into what might almost be called domestic consumption. It is but the other day it came into use, and yet if anyone will compare the cost of the first samples with that now in use, he will see what a vast difference there must be in the consumption to enable it to be made so cheaply, for the price of materials remains unaltered. Its use has spread abroad over all the earth, but from Australia, America, the Continent, and our own country we hear of fatal results following its inordinate or unauthorised use. On this very point we would refer our readers to our columns from abroad, where certain fatal cases are detailed.

And this leads us to consider one prime cause of accidents with narcotics. People are suffering agonies of pain, and they know that a prick with a pin or a mouthful of badly tasted stuff will give them relief, and they are clamorous for this Elysium of ease. In the olden time, when a man had at his disposal only crude opium or its tincture, and he knew of but one way to administer it, he was checked in the giving of it by the knowledge that thereby he was doing so much to disturb nutrition that the bad might more than counterbalance the good. Nowadays, with the exceedingly minute quantity requisite subcutaneously, the damage done to digestion is small; and while the patient is clamorous, the Doctor, though but half acquiescent, gives way. This he would not always do were the danger present to his mind; but impunity in the doing—we cannot say of evil—has wrought its customary effects, and he consents to give morphia for what perhaps his better judgment condemns. But it is perfectly well known to Medical men that the subcutaneous use of morphia is not without its dangers. In the records of the Committee of the Royal Medical and Chirurgical Society, not a few cases are related where most threatening symptoms followed comparatively speaking small doses, alarming syncope being among their number. Since that time fatal cases have occurred. This danger is so well known to many who habitually employ hypodermic medication that they combine together opium and belladonna, in order that the latter may ward off the ill-effects of the former—an end which, in truth, seems thereby to be attained, though a larger dose than ordinary of the morphia is requisite. Nevertheless, with all such precautions, when morphia is given subcutaneously in almost all affections of a painful kind, whether the patient is fit or unfit, accidents are sure to happen, and then arises the question—Was anyone to blame? We be no vain *laudatores temporis acti*, nor have we the slightest desire to return to Alexipharmic or Theriac medication; but it must be confessed that these messes, if they had little power of doing good, had still less of doing harm, which is more than can be said for many of our modern remedies. A wise old Practitioner told a young one setting out in the world—as the choicest piece of wisdom he himself possessed—that the Practitioner's first duty was to see he did his patient no harm. Well, undoubtedly we have it in our power to do much good; it must also be conceded that we may do much harm. Nay, sometimes in practice it would almost seem that we must do evil that good may come—must destroy that we may build up again. And if it be true that fools and children should never see half-finished work, it is equally true that the same class should be precluded from the use of edged tools.

Our desire is this: to impress upon the mind of the Practitioner the dangerous character of many of the remedies he uses, and of the modes in which he uses them; not to deter him from their use on all proper occasions, but that he may take all proper precaution that they are employed on the right patient, at the right time, in the right place, and in the right manner.

PUS AND PUS CORPUSCLES.

Two highly interesting memoirs on the chemical composition of pus corpuscles, and on the chemical composition of pus, by Drs. Miescher and Hoppe-Seyler respectively, have recently been published (Hoppe-Seyler's *Med.-Chem. Untersuch.*, 1871, pp. 441-486); indeed, Professor Hoppe-Seyler—no mean authority—regards Miescher's researches as the most important contribution that has been made of late years to the chemistry of pus. We propose to briefly summarise the results arrived at, for the benefit of our readers.

Miescher, in order to obtain pus corpuscles free from serum, treated pus and fabrics impregnated by it with saline solutions of appropriate density. In these liquids the pus corpuscles sink to the bottom of the fluid, and may be obtained tolerably pure by repeated washings. Attention was first directed to the albuminoids of the protoplasm. Pus corpuscles are mainly composed of albuminoids, and, when treated with a solution of common salt, they are converted into a viscid gelatinous mass—a change dependent, as Rovida has shown, on the formation of a ring of hyaline substance around each corpuscle; but this is not due to myosin, for Miescher could obtain no reaction for this body. Five albuminoids were obtained, agreeing (in number, at least) with the five different albuminoids found by Kühne in muscle. These were—alkaline albuminate, undetermined whether kept in solution by alkaline phosphate or not; an albuminoid coagulable at 118° to 120° Fahr., which was not merely albumen dissolved in alkaline phosphate; an albuminoid coagulable at the temperature at which ordinary serum-albumen coagulates; Rovida's hyaline substance; and a fifth albuminoid, the reactions of which need not be described here. Miescher was unable to detect paralbumen, though he does not deny its presence. The alcoholic extract of the globules was only investigated for lecithin and cerebrin, both of which were found to be present, the former in abundance. No glutin or chondrin was found in the watery extract, nor in the serum of pus. It must be understood that a mixture of lecithin and cerebrin forms the

substance to which Liebreich assigned the name "protagon" —a highly phosphorised material; for lecithin leaves on incineration an ash very rich in phosphoric acid. But Miescher has also demonstrated the presence of another phosphorised substance in the nuclei of pus corpuscles, to which he has assigned the name *nuclein*; and he surmises that this body, on account of its phosphorus, plays an important part in cell-growth and in the genesis of the cell albuminoids and their derivatives. Nuclein closely resembles mucin, but is richer in phosphorus, and it appears to exist preformed in the corpuscles.

With reference to the questions of the origin of pus corpuscles, their identity with the white blood globules and lymph corpuscles, and their ultimate fate, Hoppe-Seyler's results are remarkably interesting. Since living white blood corpuscles cannot be obtained from the blood in quantity sufficient for chemical analysis, and the spleen, although furnishing them abundantly, contains cerebrin and glycogen (both of which it is necessary to exclude), a novel expedient was adopted. Fresh crystalline lenses from the ox were introduced into the abdominal cavity of dogs, and, as was expected, the lenses became infiltrated with lymph corpuscles. The presence of glycogen was proved most clearly in the lenses at the period corresponding to the greatest number of active lymph cells; hence the conclusion that the glycogen comes from these. If, however, the lenses were allowed to stand till the corpuscles became rigid, sugar was found, but no glycogen. Since no glycogen was detected in the pus from inflammatory abscesses and wounds, its occurrence is a means of distinguishing lymph cells from pus corpuscles, although these have their origin in the former. With regard to the fatty degeneration of pus, it is stated that lymph cells by their transformation into non-contractile pus corpuscles lose their glycogenic properties, and with excess of oxygen may produce fat; whilst by maceration in water many changes take place, which changes are favoured by access of oxygen. Further, yeast cells and pus corpuscles seem to be in many respects very closely allied, and the former seem to contain a substance identical with the nuclein of pus.

THE WEEK.

TOPICS OF THE DAY.

Cholera seems to be increasing rather than diminishing in intensity in the North of Europe. A telegram from Berlin, dated September 19, announces that in the Baltic Provinces up to the 10th inst. the number of persons attacked by the disease has been 2517 civilians and 84 soldiers. Of these, 1273 (or nearly 50 per cent.) have died, 620 have recovered, and 708 remain under treatment. A telegram of the same date from Königsberg tells of a still higher mortality. During the week ending the 17th inst. the fatal cases exceeded in number those of all previous weeks. "Over 300 deaths occurred, the usual proportion of 50 to 60 per cent. of deaths having risen to 70 or 80 per cent." A telegram from Constantinople states that cholera has appeared at Pera and in the neighbouring villages, and a few cases are reported from Smyrna. But we are sorry to notice that the pestilence is still threatening our own coasts. The steamer *Alster*, a trader from Hamburg to Hartlepool, arrived in the Roads off Hartlepool early in the week, having lost a man from Asiatic cholera. The body was thrown overboard immediately after death. The ship, on her arrival, was boarded by Dr. R. Oldham, the official Medical Officer, who arranged for her immediate disinfection; and as no one on board appeared sick, he allowed her to enter the tidal basin on condition that none of the crew were permitted to land. Soon after, however, another of the crew was seized with choleraic symptoms, and Dr. Oldham having been again summoned, the man has been removed to the cholera Hospital, where he is still under treatment.

With cholera thus near to us, we are glad to notice that the deaths referred to diarrhœa, choleraic diarrhœa, and cholera diminished last week. The deaths in London from diarrhœa, which in the three previous weeks had been 487, 353, and 293, fell last week to 268. This number, however, exceeds by 149 the corrected average number in the corresponding week of the last ten years. Of the 268 deaths last week, 244 were of infants under 2 years of age, 13 of persons aged 60 years and upwards. The Registrar-General attributes — no doubt correctly — this comparatively large mortality to the neglect of early Medical treatment. The deaths from "cholera" and choleraic diarrhœa, which in the four previous weeks had ranged from 40 to 20, fell last week to 15, only 5 of these being deaths of adults. Of these, 4 were certified as having died from choleraic diarrhœa, and 1 from English cholera. The deaths from small-pox, which during the six previous weeks had averaged 84, and had been nearly stationary, fell last week to 57. The decline of this disease, we hope, will not prove the precursor of a cholera epidemic. But it is clear that the danger is by no means passed.

The Hampstead Small-pox Hospital is just now attracting a large amount of that righteous indignation of which the British public has always a large stock on hand. Pending the full investigation which is promised, we are not disposed to pronounce any sweeping verdict on the management and staff of the Hospital. But there are two sides to every question, and we can at least state what is acknowledged to be true on each. The charges brought against the management of the Hospital by the three Medical officers have yet to be proved; but it is undoubtedly true that the managers of the Hospital have in several instances neglected to preserve evidence of the personal identity of the patients committed to their charge, and from this neglect grave consequences have arisen. Deaths have been certified to have taken place which have never occurred, and families have been plunged in sorrow which has been suddenly removed by the appearance of a relative whom the Hospital authorities had reported to be dead and buried. But even worse than this, a child of 6 years of age—Elizabeth Bellue—has disappeared entirely, and no trace of her can be found. The Hospital authorities endeavoured to persuade her parents that another child was their missing daughter, and this statement was persevered in for some days. At last, however, the parents remaining unconvinced, the Hospital authorities reconsidered the matter, and came to the conclusion that the father and mother were right; but up to the time of our writing, although Elizabeth Bellue was received at the Hospital as early as May 17, and on May 23 or 24 is believed to have been in the convalescent establishment at Isliugton, she has never been seen by any relative, and it is utterly uncertain whether she be alive or dead. These facts have been proved before Mr. Justice Brett, and they are not denied by the Hospital authorities. Looked at as a naked statement, they certainly furnish ground for the most serious charge that has been of late years brought against a public institution for the treatment of the sick in this country; but in justice we are bound to say that it is not difficult to see how these misadventures occurred. The Hampstead Small-pox Hospital was the creation of necessity—there was little or no time to give it a perfect organisation. The East Grinstead sisterhood, who undertook the nursing department, had probably but little experience in the organisation of a Hospital staff on a large scale, and would be dependent on hired subordinates. The Hospital became rapidly full, and large numbers were taken in daily. The friends of the patients were on no account allowed to visit them, for fear of spreading the contagion; and we need not say that small-pox is a disease which, when it attacks badly, obliterates every feature by which identity may be recognised. Under these circumstances, the card at the bed-head would be the only guide; and with faulty organisation, and scores of fresh patients admitted weekly, mistakes

would almost certainly occur. Of course, the supposition that the child has been carried off and concealed in an Anglican convent is simply absurd. It would appear far more likely that she has died, and been buried under a wrong name. It is true that such an accident would not have been possible if the organisation had been good; but the Hospital was opened in a panic, the organisation was improvised at a moment's notice, and the moral of the whole story is, that a community such as that of the British metropolis ought to be better prepared with Hospital accommodation to meet an epidemic visitation.

A wretched child, of between 12 and 13, has been taken before the magistrate at Wandsworth to complain of the conduct of certain men to her, and is stated to be pregnant.

Several cases of accidental poisoning by carbolic acid have taken place lately, and metropolitan coroners and others have been addressing the public on the superior safety of other disinfectants, particularly of chloralum. A letter, dated from St. Thomas's Hospital, and signed "A. J. B.," in the *Times* of Thursday, draws the following distinction between carbolic acid and chloralum:—

"In conclusion, carbolic acid is readily diffused through air; chloralum is not. Both are good in their place, but the latter can no more pretend to take the place of carbolic acid than carbolic acid that of chloralum. Carbolic acid may coagulate germs and render them harmless; chloralum could do nothing of the kind."

MEDICAL HONOURS.

The names of Peter Eade, M.D., and of G. W. W. Firth, Esq., have been added to the Commission of the Peace for the city of Norwich.

A MEDICAL CONGRESS AT ROME.

This is the age of congresses, Medical as well as political. In the main nothing is more favourable to the development of science and the amity of nations than these *réunions*. The late meeting in London of the ambulance officers was a decided success, so we believe will be one that it is proposed to hold at Rome in May next. MM. Nélaton and Ricord, many of our German *confrères*, and visitors from England and America are expected to be present.

HEALTH OF HARROW.

Another cry of "mad dog!" Harrow is now the victim. It has been roundly asserted that disease to a very grave extent, and of an infectious character, is prevalent in this beautiful village and famous seminary. The report, however it originated, has been proved to be absolutely false, and letters have appeared in the *Times* from residents and from Dr. Butler, Head Master of the School, who says he has made inquiries of the proper authorities, and is able to state that there is no ground whatever for any apprehension. The health of the parish during the summer has been peculiarly good.

OPHTHALMIC DISEASE IN THE PLASKET SCHOOLS OF ST. GEORGE'S-IN-THE-EAST.

The amount of serious disease arising from preventible causes has been exemplified in a remarkable manner in the above schools. It was discovered that the children in these schools were affected with ophthalmia, and Mr. Adams, of the London Ophthalmic Hospital, on examining them, found twenty-seven children suffering from purulent ophthalmia, which might in some cases destroy the sight in a very short space of time: He recommended the employment of additional nurses; and, in order to secure ventilation and to prevent the annoyance to the children caused by swarms of flies, that the windows should be fitted with patent blinds. The guardians have acted on the suggestions of Mr. Adams.

NAVAL MEDICAL EDUCATION.

It has long been felt that the practical knowledge of Assistant-Surgeons entering the Royal Navy has been defective. Since the Hospital at Netley has been open to the Naval Assistant-Surgeons, improvement in that particular has taken place. With the view, however, of still further improvement, it has been decided that an additional Naval Staff Surgeon should be appointed to the *Duke of Wellington*, at Portsmouth, to superintend the studies of the numerous naval Assistant-Surgeons now attached to Netley Hospital. It is also proposed to establish a Naval Medical Professorship at the Hospital, and seventeen additional students nominated by the Admiralty will shortly join the School in Southampton Water.

MEDICAL CERTIFICATES UNDER THE NEW FACTORY ACT.

It is satisfactory to state that the provisions of the new Act to regulate factories are being carried out with vigour. One of the greatest evils under the old system was the laxity which prevailed with respect to Medical certificates. Mr. Thornhill, Factory Inspector, of Huddersfield, on Tuesday last preferred several charges of breach of the Act, to which all the defendants pleaded guilty, and were fined. The charges were for employing children uncertified by a Surgeon or schoolmaster. It is difficult to understand how the employers of factory labour could willingly and knowingly infringe so wholesome and useful a statute as the Factory Act.

WESTMINSTER HOSPITAL.

The following is an extract from a letter addressed to the Editor of the *Times* by the authorities of Westminster Hospital:

"It having been stated in some of the journals that the site of the Westminster Hospital has been claimed by the Government, we are desirous, in the interest of that institution and of the Medical school attached to it, to make it known that such statement is entirely unfounded."

It is true the value and importance of the Hospital are now materially lessened by the new St. Thomas's Hospital, and it had been suggested that Chelsea Hospital might be a convenient site for Westminster were it removed, but of that there seems no immediate prospect. It is a thing not generally known that at the time the Hospital was built the ground on which it stands was so marshy that £5000 had to be spent in driving piles to secure a good foundation for it. Perhaps it was for this reason that erysipelas was at one time prevalent in the Hospital, and that, too, in its worst form. The building itself, though tolerably well suited for its precincts and neighbours (it was built by Sir Charles Barry), has never been particularly well adapted for Hospital purposes. On the whole, the patients would benefit by removal.

NEGLECT OF SANITARY PRECAUTIONS AT CORK.

At the present time it is of the greatest importance that sanitary regulations should be carried out with the utmost vigour. This is more particularly the case with respect to vessels arriving at our various sea-ports. We know how cholera is propagated by infected passengers on shipboard, and how vitally essential it is to strictly examine all vessels arriving from infected ports. Any negligence on this point is worthy of more than a passing notice, and calls for severe remonstrance, if not for punishment. We regret to say that an instance of this negligence occurred only last week at Cork. It was reported to the Corporation of that city that two vessels from infected ports in Russia had arrived in the harbour, and been permitted to come to anchor, without having been inspected by any of the four sanitary authorities; that no Medical inspection of the vessels had then been made, but it had been *unofficially* ascertained that there was no sickness on board. The Corporation expressed great surprise at the negligence of the several sanitary authorities, and directed that

special attention should be called to the omission to furnish the Custom-house officers with lists of the infected ports, as they may be inspecting and passing infected vessels in every port in Ireland. How much of the negligence to which the above facts refer is due to the circumstance that four sanitary authorities exist in the port of Cork? If there were one only, and this efficiently worked, it would be far more effective, and we should know where to fix the responsibility.

SMALL-POX HOSPITALS AND HEALTH IN THEIR NEIGHBOURHOOD.

Does a Hospital for infectious diseases, if properly situated and properly managed, render the neighbourhood in which it is placed in any way insalubrious? We think we may safely answer in the negative. The affirmative, however, is the prevalent opinion, and it would be difficult to convince the majority of people to the contrary. At all events, the establishment of the Small-pox Hospitals at Homerton and Stockwell has deteriorated the house property to so great an extent that a petition from the inhabitants of the latter place has been presented to the Lambeth Vestry, urging them to reduce the assessment of their property. It would seem unjust that the few should suffer for the convenience of the many; but it would be a great mistake for the Vestry to grant the prayer of the petitioners on the ground that the Hospital was in any way detrimental to the inhabitants in its neighbourhood, however convinced they may be that it is so.

PROCURATION OF ABORTION.

America has long had an unenviable notoriety for the frequency and facility with which abortion can be procured, both by legitimate and illegitimate Practitioners. The evil has become so serious, that a judge in a late case in which conviction was obtained made some very strong remarks on the subject. He asserted that the "abortionists" had become so numerous that they were a pest to society, and that means must be taken to stop their nefarious and dangerous practices. He had made up his mind to punish with the utmost rigour of the law all offenders who came before him. There is too much reason to believe that the practice is becoming alarmingly common in our own country. The annals of our police-courts and our sessions and assizes bring to light only a few cases; but these are sufficient to indicate what is taking place on an extended scale. Happily for us, the offenders are rarely, if ever, members of our own Profession, but consist of "prescribing druggists," old women, and so-called "midwives." A coroner's jury at Southgate, near Rotherham, has returned a verdict of manslaughter against a chemist at Rotherham for causing the death of a young woman "by an operation performed for a criminal purpose." It cannot be too generally known that the attempt to procure abortion, either by the means of powerful drugs or by manipulative proceedings, is attended with the utmost danger to health and life. Even when "successful," the effects of such proceedings are often most disastrous, and the victim, though she may escape disgrace, lingers on in the utmost wretchedness and misery.

HEALTH OF BUENOS AYRES.

The terrible calamity which has lately befallen this important city, by which it was nearly depopulated, arose in a great measure from preventible causes. With the desire to prevent for the future any such fearful epidemic, the Government has determined to adopt means of a very extensive character. They have appointed Dr. Scrivener special Commissioner for the purpose of procuring in Europe such reports or information as he may deem of value for the sanitary improvement of the city.

FROM ABROAD.—TOXICAL EFFECTS OF HYDRATE OF CHLORAL—TEMPERATURE OF THE WOUNDED—LYONS *versus* NANCY.

Professor N. R. Smith, of Baltimore, has recently communicated a paper to the *Boston Medical and Surgical Journal*, on the "Toxical Effects of Hydrate of Chloral," an account of which will prove of interest to our readers. His attention was first called to the subject on his being consulted by an old retired Medical man on account of a singular affection of his fingers, attended with desquamation of the cuticle and superficial ulceration, especially about the borders of the nails. It was attended with pain and much morbid sensibility to touch, and was associated with some acceleration of pulse and general malaise. He stated that he had been taking chloral in liberal doses as a hypnotic for some months, and was convinced that it was the cause of the ailment. This was soon relieved by local astringents, but in about three weeks afterwards Professor Smith was called to him on account of severe bronchitis, with a pulse of 140, and extremely feeble action of the heart. Of this he died; and as it is nothing uncommon for aged persons to die of bronchitis, the author did not suspect the use of the chloral as being connected with the event. Some weeks after, however, he met with the case of a lady, 22 years of age, who was suffering from a precisely similar affection of the fingers, and who had been taking chloral as a hypnotic during a month previously. She was not then suffering from any general affection, but about ten days later she became the subject of general anasarca, the action of her heart being exceedingly feeble, and her pulse counting 140. Respiration was excessively embarrassed, and the urine was found to contain albumen. Under stimulants and diuretics she recovered. Two other cases have come under Dr. Smith's notice, in which the same affection of the fingers followed the use of chloral. He has also recently met with two cases of death from overdoses of this substance. In the one the person took it in doses of half a drachm, for a neuralgic affection, and it was supposed that he had died almost suddenly after taking three drachms. In the other case, the patient not receiving relief from a painful affection of the head from a hypodermic injection of morphia, took chloral, and fell into what was supposed to be only a deep sleep, but which proved to be a fatal one. The amount of the dose is not known, but is supposed not to have been larger than has been often recommended. In the case of a lady who was suffering from pain and restlessness after a severe Surgical operation, a drachm and a half was thrown into the rectum, and she sank at once into a state of insensibility, and died in about three hours.

"These cases are, it appears to me, amply sufficient to establish the toxical effects of this powerful agent. It is probable that its poisonous effects are exerted in two ways. 1. When given in a large dose, and especially where the system may have been charged with it by its previous administration, it at once overwhelms the powers of life, and causes immediate death. 2. It appears, when given in small doses, and continuously for some time, to induce a form of toxæmia similar to that caused by the continued administration of ergot. . . . . Another very interesting and important inquiry is certainly suggested by the foregoing observations, crude as they are. If chloroform, developed in the blood from chloral, is productive of such disastrous effects, primary and secondary, can the direct inspiration of chloroform be as innocuous as it is thought to be? The Profession are aware of the fatal primary effects of chloroform in numerous instances. It has undoubtedly caused death in many cases in which it had been given with every caution in regard to quantity and mode of administration—in cases, too, in which there existed no malady of brain or heart to forbid its use. In some instances it has been administered fatally in which it had been previously given with a good result. But I would more especially call attention to the chronic poisoning of the blood which I believe results from its free and repeated use. I have administered chloroform as often as any other Surgeon in America, both in Hospital and in private practice—indeed, I have been constrained to use it in many cases in which my judgment was adverse to its use; for such is the overweening confidence in its effects that many patients refuse operations unless under its influence—but the more I have used chloroform, the less has my confidence become in its innocuousness. When I compare the results of my operations performed before anæsthetics were employed with those performed during the last twenty years with the aid of chloroform, I am satisfied that unpleasant secondary results

were less frequent during the past period than they have been under the use of that agent. I allude to secondary hæmorrhage, pyæmia, erysipelas, and hospital gangrene. Whoever will take the trouble to look over the Medical journals and retrospects of the last two years, will discover that pyæmia or septicæmia occupies far more space in Surgical records than it did before anæsthetics were so generally employed.

"When chloroform is administered during the period of an hour or more, as it frequently is, it undoubtedly enters copiously into the circulation, not only powerfully impressing the brain and the heart, but modifying the constitution of the blood and functions of the capillaries. If the effect of chloroform, developed from chloral in the blood, be such as I have shown on the functions of the minute vessels, causing erythema and ulceration in the extreme parts, may we not suppose that the introduction of chloroform more directly into the circulation may produce the occurrence of those results not uncommon before its use. These suggestions, I trust, will not be regarded as impertinent from one who has practised Surgery for more than half a century without and with anæsthetic agents. I doubt not that, if they are deemed worthy of any notice at all, they will be rejected by the majority of the Profession; but I have an abiding confidence that their truth will be ultimately acknowledged."

M. Demarquay, at one of the recent sittings of the Academy of Sciences, read a paper on the "Modifications of the Temperature caused by Severe Wounds." It is founded upon thermometrical observations carefully made on forty-eight persons suffering from severe wounds in Paris during April and May. The first category of these relates to thirty-eight cases in which the wounds were caused by fragments of shells or by balls, there being always a more or less severe lesion of the bones or joints, sometimes a portion of one or of both limbs being carried away. In all these cases there was found a diminution of temperature from one to several degrees Centigrade. The lowest points reached were from 35° to 34° C., death usually occurring before the thermometer had descended to 35°. The subjects were between 20—50 years of age; but, all things being otherwise alike, the same results were not always observed in wounds apparently of a similar gravity. The diminution of temperature was more considerable in men of 40 than in those of 20 years of age. The wounded men in which the lowest temperatures were recognised were those who had been accustomed to the immoderate use of alcohol. All those in whom the thermometer descended to 35° died, whether they were operated upon or not, no reaction following the operation in these cases.

A second category related to six cases of penetrating wounds of the abdomen; and in these death took place rapidly, the thermometer quickly descending to 35° or 34° C. In a paper formerly read to the Academy, M. Demarquay, describing the fall of temperature which was produced by ligature of a noose of intestine, attributed this to the strangulation of the noose by the wound. But in the present cases the depression of temperature occurred independently of any compression of the intestines whatever, and was entirely due to the severity of the wound.

In a third category of cases, M. Demarquay demonstrated the truth of a fact which he, as well as Professor Billroth, had already made known—that severe and somewhat extensive burns are attended, as a general rule, with a considerable diminution of temperature.

The struggle between Lyons and Nancy for the translation of the Strasburg Faculty of Medicine has not yet been decided. Petitions from the latter city gave rise to an incident which may be almost called amusing. They were referred to a committee to report upon—M. Bouisson, who is both Dean of the Medical Faculty of Montpellier and Member of the National Assembly, being charged with its preparation. This he soon effected; and in his report he at once disposes of the claim urged by Nancy—that by reason of its vicinity to the German frontier it was the natural heir of Strasburg, and most likely to support the honour of French Medicine in that quarter—as the piece of sentimental nonsense which it is. But he found the opportunity of throwing a little cold water on other candidates too tempting to be resisted, although somewhat out of his sphere of duty. He therefore suggests that Lyons, also, had better remain as it is; for, in fact, Montpellier and Paris could supply all that is wanted, Lyons being, moreover, a very restless as well as populous place, quite unfitted for the residence of studious young men.

BEN RHYDDING.

(*By a Holiday Contributor.*)

It has been our fate, as we doubt not it has been that of many others, to be not unfrequently consulted in cases of absolute break down from over-work, bodily or mental, or where a lingering illness made a change imperative, or yet again, where a long course of treatment, with proper hygienic conditions, was deemed necessary for a return to health and strength. In most instances we were met with the question—Where are we to go? and we confess to having experienced no little difficulty in answering it. The sanitary condition of our watering-places is bad; the ways of the watering-place landladies are not agreeable; pests of various descriptions are not infrequent; in short, for an invalid such as we describe, such a change is not always a desirable one.

We had heard of a place in the North which we thought might be turned into account this way, and resolved to make it the subject of experiment in our own vile body; so, when holiday time came round, not with any particularly shattered constitution, but tired enough thoroughly to appreciate the change, we packed our portmanteau. Next morning we were up betimes, took our seat in the Northern express, and soon were on our way to Leeds. There we arrived a little after midday, and found there was time to look at the place before our next train started. There is not much to be seen in Leeds beyond the new Infirmary—with the exception of the Town Hall, everything else is ugly; but soon we were on our way again, and presently emerged into the charming scenery of Wharfdale. In about an hour we reached Ben Rhydding Station, mounted the trap in waiting for the train, and while ascending the hill—for Ben Rhydding lies high—we had time to have a peep about us. A goodly way above us, and close to the margin of the heathery hills, rose what one might be readily pardoned for esteeming a nobleman's castellated mansion, but which we were informed was our destination; and soon making our way through the surrounding trees, we reached its entrance. The building we found situated on a plateau on the south side of the valley of the Wharfe, but rising far above the bed of the river, fronting towards the east, one wing facing almost due north. Round about it were the grounds, carefully and trimly kept, and from those stretching away behind the house could be had a view of the pleasant village of Ilkley, at a distance of about a mile; and beyond that, again, the valley, away on towards the woods surrounding Bolton Abbey. The situation was pleasant; the air felt bracing; there was enough sun to make everything enjoyable; the change from London made us feel buoyant; and everything looked *couleur de rose*. What it might have been had we arrived in the middle of a snowstorm we will not pretend to say.

The house, though large, accommodating nearly 150 people, was about as full as possible; but not more than half of these, perhaps, were undergoing active Medical treatment. The others had come to enjoy the rest, the scenery, the fresh air, the regular hours, the plain food, the cold bath in the morning, and what not. Altogether, one would have said they were a "motley crew," but with this grand advantage over ordinary dull, bored humanity—they had a never-failing subject of conversation (the weather was rarely mentioned, except with

reference to out-door exercise)—each others complaints, the baths to be taken, and the walks to be done.

It is perhaps time, however, we informed the uninitiated that Ben Rhydding is what is commonly called a hydropathic establishment—a place for the water-cure; but let us promptly assure the horrified reader that it is not a place where the doctrine that cold water cures everything is either preached or practised. The practice is such as is or may be adopted by any orthodox Hospital Physician in London: and with their doings we happen to be tolerably familiar. Dr. Macleod, the Resident Physician, is a man who knows how to use the system without abusing it, and is at all times prompt to apply the appropriate remedy to the prevailing disease, be that what it may.

The means relied upon for the cure of such maladies as we referred to first of all are mostly hygienic—rest, quiet, good air, good food, and exercise; but should a line of treatment be indicated by any gentleman sending a patient there, it is faithfully carried out until its efficacy or its uselessness is fairly shown; or should any addition to it be deemed advisable by Dr. Macleod himself, it is promptly supplied, modified, or improved on, as the case may require.

But it will be best to give some idea of the day's routine in the case of an invalid such as we have figured, thereby perhaps best describing the ways of the place. Early in the morning—that is, by six or seven—the bath-man knocks at the door with a pair of large rough sheets on his arm, and tells you he has come to make ready your bath. In many instances the bath is in the individual's own room, but sometimes he has to make his way to one or other of the bath-rooms scattered through the building. These baths are merely shallow zinc tubs, in which one can sit down with his legs extended in front of him. They are partly filled with water pure and cold from the hills, and so filled the stranger is invited to get out of his warm bed and get into the cold water, having previously wetted his head and face. The instant he is seated he is saluted with a pail of cold water over his back and shoulders, the bath-man rubs the back and limbs; but about two minutes of this is enough for anybody, and the bather is speedily on the floor, where he is enveloped, first in one, then in the other, of the sheets, and quickly rubbed dry. With a good circulation the reaction is wonderful, and one feels all over in a healthy glow; but this would be too much for the more weakly, and in their instance the cold water is duly tempered with warm before its application.

The next thing to be done after dressing is a run up on to the hills or a turn through the grounds, to get an appetite for breakfast. Many take advantage of this early excursion to procure their morning draught of pure clear water from a fountain high up above the houses. We think we can pronounce it healthier than the rum-and-milk of some valetudinarians, or the even more questionable beverages of others. But with the cold bath, the morning mountain air, and what not, by eight o'clock most portentous appetites are produced, and the first breakfast-bell is the signal for trooping back to house. Most visitors breakfast in the great dining-hall, where all meals are served, but some do so in their private apartments. The meal itself consists of tea or coffee, bread-and-butter, eggs, and cold meat, varied from time to time with fish; and the rapidity with which the solids disappear vouch for the efficacy of this "treatment" in recovering an appetite.

After breakfast there is a general dispersal—some to read the morning papers, others to write letters for the early post to town, and so on. The stronger most likely betake themselves to the moors, or are off on some of the many excursions to be made in the neighbourhood. Those undergoing treatment probably remain behind, as for them, in the middle of the day, there is another bath, perhaps the rain-bath—a contrivance whereby a multitude of little jets of cold water are made to play at all sorts of angles on the surface of the body. This can be withstood but for a short time, but the reaction is fine. Or, again, there may be, in the case of ladies with uterine troubles, the sitz-bath; or, yet again, if the skin acts badly, the Roman or hot-air bath, or the pack. This last form of cold-water application seems to be singularly useful, and might with great propriety be employed more generally for reducing temperature. The patient's bed is prepared for the pack by having all the bed-clothes turned down, and a thick blanket spread on the mattrass; over this is laid a cold dripping sheet, and in this the patient is carefully and tightly enveloped. Next, the blanket is folded round the patient, a light feather-bed is placed over him, Continental fashion, and the bed-clothes over all. Thus he is left for half an hour or so, in most cases speedily becoming warm from bodily reaction. If this be insufficient, hot-water bottles are used till the surface feels as if enclosed in a gigantic poultice. The result is free transpiration, and in most cases an irresistible tendency to go to sleep, inexpressibly soothing to one who for some time past has been restless from irritating skin complaints, or such like. At the end of half an hour the patient is uncased and soused in cold water, the result being a feeling of lightness hardly to be otherwise attained.

A walk or stroll in the grounds brings one to dinner-time—that is, two o'clock—when the plain, substantial fare is attacked even more vigorously than in the morning. At this meal wine or beer is generally partaken of—those undergoing treatment at the discretion of the Physician; those as visitors merely at their own. Claret and bottled beer seemed to be the two liquors mostly consumed. It is in this respect, almost as much as any other, that Dr. Macleod's method of dealing with patients differs from that in vogue at most other establishments of the kind, in which everything but water is strictly forbidden. He knows the value of wine, and is only anxious that it should be used aright, in this way doing much to promote the comfort of those under his care.

Dinner over, there is a second dispersal, this time more general than before. Ladies who, up to this time, have been confined to their rooms, make their appearance on the lawn or in the croquet ground, or there is some little excursion to be made to the village; at all events, in good weather the time is chiefly passed in the open air—some, however, being drawn to the reading-room by the arrival of the London papers; and so the time passes until tea, at seven. This, to a great extent, is a repetition of the morning meal, but is more generally partaken of in the hall. About eight o'clock the majority of the visitors make their way to the drawing-room, where whist-tables abound, the younger members of the company indulging in games, or dancing, varied with music, according to the capabilities they can muster. At ten, retirement begins; some of the lights are turned out; one by one the company move off, some to smoke a final cigar or pipe outside (for tobacco-smoke is forbidden in-doors); but presently all are a-bed, and at eleven lights are turned out. Thus ends the day—not a very exciting one, truly; but its pleasures, if simple, are innocent; and, with a quiet head on a spotless pillow, the stranger may dream of the toil and turmoil he has left behind him.

This quiet, even life has its charms to many, and year after year the same visitors return; some, indeed, make the place their residence the year through. One would have thought, from the situation and aspect of the house, that it would not be a pleasant residence in winter; but all the halls and corridors are warmed by hot-water pipes, and so an even temperature is tolerably well maintained. Some, indeed, seem to prefer a residence at Ben Rhydding in winter to its attractions in summer; the visitors are less numerous, stay longer, and thus get more domesticated together; but, for our own part, we should not then care to expose a *poitrinaire* to the tender mercies of a northern blast. It nevertheless seems just the place, even then, for patients in what has been termed the first stage of phthisis, as indicated by a certain delicacy of appearance and appetite, when the patient cannot digest fat, and when he is inclined to rely for warmth on outward rather than inward resources. For diabetes, too, where bathing and exercise are of such vital importance, we should strongly recommend Ben Rhydding as a residence presenting in both respects admirable facilities for treatment. There is another class of patients still who seem to derive benefit from a residence here; not so much, however, from the situation or climate as from one of the appliances introduced by Dr. Macleod—these are chronic bronchitis, especially such as have emphysema and labour from occasional fits of asthma. For their use a compressed air bath has been constructed, and has been found to be wonderfully beneficial. By pumping air into an air-tight chamber, and limiting its means of escape, a pressure equivalent to two atmospheres may be attained, and it is surprising to see the effect of this on poor men and women who have passed the night panting in bed. Their breathing becomes quieter and easier, and many of them drop off to sleep. On a healthy individual the influence of the increased pressure is indicated by a slight oppression about the ears and temples; but by opening the Eustachian tubes, either by swallowing or by forced expiration, the mouth and nose being closed, the inequality of pressure is removed, and comfort is restored. It is only while the pressure is increasing or decreasing that the oppression is noticed. Whilst the pressure is stationary no uneasiness is felt.

Yet another class who may be benefited, and we have done. We have already alluded to the facilities for treating skin

diseases; the same means will be found available and useful for chronic subacute rheumatism. For this troublesome complaint the Roman or Turkish bath, the wet pack, etc., will be found exceedingly serviceable.

Nevertheless, of all these, we still think the place most beneficial for men who have broken down from over-work or are convalescent, rather than suffering from any acute disease. These, provided they can get out of doors, will doubtless find themselves highly benefited by a residence at Ben Rhydding.

There is but one point more to be alluded to—that is, the over-expectation of good to be derived from such a change. It is more than likely that many may feel themselves worse than usual for some days after their arrival. The sudden and complete change in one's mode of life is quite enough to account for this, but its effects speedily wear off, and before long the hygienic conditions begin to tell. Nevertheless, let no one be disappointed if for a day or two after his arrival he does not feel as well as usual; that will soon be changed.

PHYSIOLOGICAL NOTES FROM PARIS.

I. The *gases of the blood*, and the proportions in which they vary under certain conditions, have formed the subject of a recent experimental investigation by MM. Matbieu and Urbain.

(1) The influence of losses of blood on the proportion of the gases in arterial blood is first considered. Blood was taken from the crural arteries of fasting dogs, with the following results [Bs represents bloodlettings]:—

	Successive Bs of 20 c.c., at one day's interval.		Successive Bs of 20 c.c., at one hour's interval.					Successive Bs of 40 c.c., at one hour's interval.		
	Resp. 22.	Resp. 15.	Resp. 18.	Resp. 16.	Resp. 16.	Resp. 14.	Resp. 12.	Resp. 17.	Resp. 15.	Resp. 12.
	c.c.	c.c.	c.c.	c.c.	c.c.	c.c.	c.c.	c.c.	c.c.	c.c.
O.....	21·50	20·25	20·00	18·75	17·75	16·50	15·65	20·75	17·25	14·80
CO^2...	47·50	54·50	52·75	49·25	49·25	48·25	47·35	67·25	54·50	48·40

Hence we see that for a loss of blood of 20 c.c. there is the following series of diminutions in the oxygen:—2nd B, 1·25 c.c., 3rd B, 2·25 c.c.; 4th B, 3 c.c.; 5th B, 3·50. If this influence of bloodletting were not fully recognised, it would injure the accuracy of experiments on this subject, and a correction must always be made for it. It does not last for more than from fifteen to twenty days.

(2) The proportion of the gases contained in the blood of different arteries is then considered, and the results are shown in the following table:—

	I.				II.				III.	
	Carotid.	Branch of crural.	Carotid.	Crural branch.	Right lingual.	Right carotid.	Right lingual.	Right carotid.	Crural.	Branch of crural.
	c.c.	c.c.	c.c.	c.c.	c.c.	c.c.	c.c.	c.c.	c.c.	c.c.
O.....	23·00	22·00	23·50	21·25	19·00	20·75	18·75	19·00	12·67	10·16
CO^2...	54·50	44·00	46·50	37·50	44·00	51·75	60·75	43·50	62·50	52·10

In this table the results under I. were obtained immediately after the blood was drawn; those under II., after it had stood protected from the air for one hour; and those under III., after it had similarly stood for two hours. As a general rule, it is seen that the blood of the larger arteries is richer both in oxygen and carbonic acid than that of the smaller trunks.

(3) In another set of experiments, the influence of external temperature on the gases of the blood is investigated; and it is shown that the arterial blood of animals at a constant temperature contains most oxygen in winter. Thus, to take the most striking case, the temperatures being 0·7° and 24° C., the relative volumes of oxygen were 22·10 c.c. and 11·56 c.c. The experiments generally show that the quantity of oxygen fixed by the arterial blood varies directly with the degree of cold. The authors explain this phenomenon by a reference to the fact that the pulmonary endosmosis is more active at a low than at a high temperature, and they illustrate it by an ingenious experiment. Again, the introduction into the economy of an excess of oxygen when the temperature is low is in accordance with the fact that in winter organic combustion is at its maximum. In demonstration of this fact, they ascertained the difference of the oxygen in equal volumes of arterial and venous blood, when the inspired air was 10°, 22°, and 40° C. At 10°, 9·00 c.c. of oxygen had disappeared; at 22°, 7·75 c.c.; and at 40°, only 5·50 c.c.

(4) The influence of atmospheric pressure is the last point they investigated. The following are their results:—

Pressure of inspired air .	734 mm.	764 mm.	794 mm.
O	20·50 c.c.	22·50 c.c.	24·00 c.c.
CO^2	49·75 c.c.	51·50 c.c.	56·50 c.c.

Hence we see that in arterial blood both the oxygen and the carbonic acid increase directly with the atmospheric pressure, which is a necessary consequence of the laws of endosmosis of gases traversing moist membranes.

II. *Crystallised Aconitine* has been studied chemically by M. Duquesnil, and physiologically by that gentleman and M. Gréhant. This alkaloid must be distinguished from the various substances previously known as aconitine, which, according to M. Duquesnel, differ in their energy according to the mode in which they are obtained. He obtains his crystalloid body from the powdered root of aconitum napellus, by exhausting it with very concentrated alcohol, after adding a little tartaric acid. The alcoholic solution, protected from the air, is distilled at a temperature not exceeding 60° C., and an extract is thus obtained, from which fatty and resinous matters are separated by the addition of water, which contains the alkaloid in the state of a tartrate. Any colouring matter is separated by ether, and the aconitine is then liberated from the acid by the addition of an alkaline bicarbonate. It is then redissolved in ether containing a little "ether of petroleum," and obtained on evaporation in rhombic or hexagonal colourless tablets, whose composition is represented by the formula, $C_{54}H_{40}NO_2$ (where C = 6).

Its chemical composition seems to approximate it to the glucosides, which have the property, under the influence of certain agents—as, for example, ferments—to split up into glucose and some other substance. This view may explain why it is that certain preparations of aconite are so liable to undergo alterations which modify their properties.

It is almost insoluble in water, but dissolves readily if a drop of an acid is added. It is, moreover, soluble in alcohol, ether, benzine, and especially chloroform. It is not volatile; it turns the plane of polarisation to the left, and it is faintly alkaline. The most sensitive tests for it in solution are phosphoric acid, tannin, iodide of potassium, and biniodide of mercury and potassium; but the physiological experiment of applying the most minute quantity to the tongue is more certain than any of them, the characteristic sensation being at once produced.

It is one of the most active of the vegetable poisons. To detect it in a Medico-legal case we should employ dialysis, and then the method of Stas.

The physiological experiments were made in the laboratory of Claude Bernard, and under his superintendence. From three experiments on frogs (which they fully describe) it appears that small doses of this alkaloid possess the same physiological action as is induced by curarine—that is to say, the first action of the aconitine is to destroy the motor power of the nerves.

They were much astonished to find, in another case in which a comparatively large quantity of aconitine was injected into a frog, that the excitability of its motor nerves remained for a long time unaffected; but on opening its thorax it was seen that the action of the ventricle was completely arrested, and that the auricles alone contracted feebly. This observation led to the idea that the poison in a large dose primarily arrested the action of the heart, and that the result was the stoppage of the process of absorption. This hypothesis was thoroughly confirmed by the following experiment:—A frog's foot being extended under the microscope, a milligramme of aconitine was injected under the skin. In a minute and a half the circulation became slower, and in three minutes it had stopped. On the thorax being opened the ventricle was found motionless. The nerves of the brachial plexus were less excitable than the lumbar nerves, which were scarcely affected. The heart's action having been arrested, poisoning could only have taken place by imbibition.

In mammals the phenomena of poisoning occur with such rapidity that it is far from easy to analyse them. In a rabbit, however, into which they injected a milligramme of the alkaloid, and in which they kept up artificial respiration, the sciatic nerve, after a lapse of half an hour, could no longer give rise to muscular contractions. The contractility of the muscles was, however, unaffected.

III. M. Bert, one of the most distinguished experimental physiologists of the present day, has instituted a series of valuable observations on "The Influence that *Changes of Atmospheric Pressure* exert on the Phenomena of Life"—a subject to which we recently directed the attention of our readers in connexion with the human subject. He finds that when we rapidly diminish the pressure to which a warm-blooded animal is submitted down to 15 or 18 centimètres (of the barometer), it springs about, is seized with convulsions, and dies rapidly, with a bloody froth in the bronchial tubes. Death takes place with equal rapidity, whether the animal is enclosed in a bell-jar or is exposed to a continuous current of the attenuated air. In the former case the ambient air is scarcely altered; in both the blood is black in the cavities of the left side of the heart.

If, however, the pressure is gradually diminished, the animals may, with due precautions, be kept alive for a considerable time at very weak pressure, but finally die of asphyxia. The composition of the air in which they die varies very much with the degree of pressure. M. Bert gives a number of observations on this point made on sparrows, owls, cats, kittens, and guinea-pigs. We will quote the results afforded by the cats, as showing a fair average:—

	c.	c.	c.	c.	c.
Pressure of	75	51	29·5	21	16
CO^2 . .	13·2	10·1	9·6	6·4	5.5
O . .	4·4	8.5	10.3	13·5	16.6

Birds could not be kept alive at a pressure lower than 18 centimètres, while mammals could live at a pressure of only 12; but under these conditions their temperature sank several degrees. Cold-blooded animals and certain newly born mammals were able to bear a far lower pressure. Some anomalous results were obtained—thus, the hawk, a high-flying bird, was more susceptible than the sparrow; and a hedgehog showed itself as susceptible as other mammals, and could not be thrown into a state of hybernation.

From the tabulated results, which we have only quoted in the case of the cat, it appears that till the pressure sinks to about 55 centimètres the functions are not materially affected; and this corresponds to about an elevation of 2000 metres. From that point the alterations in the exhaled air follow a uniform course to 30 centimètres, when they become more marked.

IV. M. Gréhant has made a series of experiments "On the Arrest of the Circulation of the Blood consequent on the *Introduction of Compressed Air* into the Lungs." As long ago as 1855 Poiseulle established the fact that inspiration impedes the pulmonary circulation, while expiration favours it, and that in inflated lungs the injected capillaries are of smaller diameter than in those organs when non-inflated. Recently M. Gréhant, while measuring the pressure of the blood of the femoral artery of a dog poisoned with curari, and in which artificial respiration was kept up, observed that if he worked the bellows with extra force the arterial pressure was diminished by one-half. This rough experiment, together with his knowledge of what Poiseulle had previously ascertained, led him to a further investigation of the subject.

In a dog in its natural condition, the pressure of the blood of the femoral artery was registered on M. Marey's revolving cylinder as equal to 12 centimètres of mercury. Through a tube fixed on its trachea, air at a pressure of 15 centimètres was forced into the lungs, when the arterial pressure fell to 3 centimètres, and the tracing showed that the blood-waves gradually diminished and finally disappeared. In a second experiment the inflated air was submitted to a pressure of 6 centimètres of mercury, and the arterial pressure fell from 12 to 5 centimètres.

Similar experiments, with analogous results, were made on rabbits. In one case, when the inflated air was at a pressure of 4·2 centimètres of mercury the carotid pressure fell from 13·8 centimètres to 2·6 centimètres. Division of the pneumogastric nerves did not exercise any influence on these phenomena.

M. Gréhant describes two perfectly distinct experiments by which he directly proves that the compressed air arrests the pulmonary circulation. We give the second, as being the one capable of being most briefly described. The blood yielded by an animal dying from hæmorrhage is defibrinated, and the thorax being opened and two glass canulas inserted into the pulmonary artery and the left auricle respectively, the circulation is artificially maintained through the lungs under a constant pressure of 5 centimètres of mercury. As soon as the lungs are inflated the blood ceases to flow into the left auricle, but comes again abundantly when the insufflation ceases.

These experiments may yield some useful hints as to the dangers that might ensue in cases of artificial respiration. It is needless to add that the subject treated of by M. Gréhant is quite distinct from the effects of compressed air on the body generally.

RECOLLECTIONS OF DR. JOHN DAVY.

John Davy was the illustrious brother of a still more illustrious man; and if we have hitherto given no sufficient notice of this excellent Physician and Physiologist, it was not from the want of a due esteem for his merits, but because we hoped that a fitting opportunity would soon occur in a review of a biography of him. But nothing of the kind has yet appeared worthy of the subject; and, though we cannot pretend to supply this want, we deem it due to his memory, and a just tribute of our respect to the Medical Profession, to give a brief notice of such points concerning him and his works as we can glean from some of his intimate friends, before they, too, are silenced in the grave.

The short obituary notices of him that have been published seemed to us scantily appreciative, as rather hinting at his faults than generous to his merits. His virtues were assigned chiefly to his sympathy with and veneration for his elder brother's reputation; as if such a mind as John Davy's could avoid a noble respect for his most eminent and true friend and near relation. And as to his defects, it was said that Dr. Davy's "main deficiencies were deficiencies affecting his power of imagination and his faculty of exposition;" as if, in physiological science, the imaginative and expository faculties were not too often in want of him, or men like him—that is to say, of inquirers judiciously diligent in experimental observation and scrupulously precise in the record and application of the results.

He was an original and profound observer, not a compiler or sciolist, always explaining his experiments with didactic and instructive perspicuity suitable to the occasion; while his "Piscatory Colloquies" are a good example of the imaginative faculty in its proper place. He never indulged in the ordinary roads to temporary fame by advertisement or dissertation; but pursued the noiseless and even tenor of his way in the investigation of difficult and obscure problems of physiology, and obtained his results by the experimental method. Happy would it be for this science had it more men thus working and fewer merely writing and talking.

He graduated in Medicine at Edinburgh, in 1814, when his inaugural dissertation on the blood gave earnest of his taste for a branch of physiology to the cultivation of which much of his attention was happily devoted in after years. Most of these were spent in the Medical Department of the Army, generally in chief Medical charge at the several stations where he served; and he has left very valuable, though never very current, records of the different colonies in which his duties placed him. Thus, we have his "Account of the Interior of Ceylon," quarto; "Observations on the Ionian Islands and Malta," two vols. octavo; "The West Indies before and after Slave Emancipation," octavo; to which may be added his "Lectures on Chemistry and Discourses on Agriculture," a small octavo volume, dedicated to the "Managers of the Reid School of Practical Chemistry of Barbadoes," at whose solicitation they were delivered and published.

His "Physiological and Anatomical Researches," two vols. octavo, 1839, and his "Physiological Researches," octavo, 1863, contain a wealthy mine on the subjects; while his work on the "Diseases of the Army," octavo, 1862, affords the most extensive series of the pathological history of soldiers, as explored by dissection, that has ever been published, and is indeed a sort of modern Morgagni. Of the researches at Fort Pitt, which had resulted in the discovery of the softening of fibrin, many years before this important pathological element figured as a great and new fact, under the name of "thrombosis," on the Continent, Dr. Davy has left interesting notes in his work on "Army Diseases," chap. viii., pp. 267 and 288. He was the discoverer of phosgene (chloro-carbonic acid), and his early contributions to chemical science have been well recorded in Thomas Thomson's "History of Chemistry."

But to Dr. Davy physiology is still more indebted. Here his patient research was rewarded with many important dis-

coveries. Among them are the bilocular auricle of the heart and the cutaneous branch of the pulmonary artery of batrachians; the chemical constitution of the urine in them and in fish, and of the excrements of insects; the temperature of man under several conditions, and of many other animals, including the regular warmth of certain fishes; important points in the anatomy and physiology of the torpedo, and in the structure of the generative organs of other plagiostomes; phenomena connected with the blood, respiration, and animal heat of higher vertebrates, and with the impregnation and development of the ova of the salmonidæ. These are only some points that at present occur to us without a critical examination of his extensive works.

Of such men, with their minds mostly devoted to the abstract or higher branches of our Profession, it has often been remarked that they are "not practical"; which seems to us only one of the many modes, in the present commercial age, of hinting a dislike to or ignorance of these pursuits. But it is easy to show, even in the single instance of John Davy, how groundless and idle such opinions may be. He proved the true structure of the central organ of vegetative life in a class of vertebrates; how far the two commonly received primary divisions—hot-blooded and cold-blooded—of the whole of that sub-kingdom are at variance with physiological truths; how the temperature of the human species may, as is now well known, afford important guidance in the practice of Medicine; how the myriad swarms of gnats are useful, by converting vegetable matter into nitrogeneous compounds, for the fertilisation of plants; and how the ova of fish may be transported to, and hatched at, any distance, even as far off as the Antipodes. Surely these are practical facts. And several ichthyologists, especially Dr. J. E. Gray, the the worthy head of the Zoological Department of the British Museum, had the commendable perspicacity to recognise immediately this last as a great practical fact, and to promote the results of it accordingly. Hence the present well-established and interesting addition to the economic resources of our country, now that the eggs of the salmonidæ for the purpose of breeding, at home and abroad, have become a regular article of commerce. And the waters of Ireland should afford peculiar facilities for the development of this practical fact.

Something like a practical fact, too, was the good example of Dr. Davy's generous pursuits to Army Medical Officers. But, so far from such an example having met with due reward, he was injudiciously, if not ungratefully, displaced or passed over in favour of servile mediocrity or convenient inferiority—and this not only in the department which he had adorned in the public service, but to some extent in civil life also, when men by no means his equals received honorary degrees from universities, while those learned bodies might have honoured themselves, and done a graceful act of justice to physiological science, by a suitably grateful recognition of the merits of John Davy.

Never was a Medical officer more active and sincere, more zealous and intelligent, in the execution of his public duties. These were always so paramount with him that he neither would nor could endure negligence or incompetence in his subordinates, much less such shams as were then, if not now, too common in the public service. And in this respect his conduct was alike to superiors and inferiors; so that, as is often the fate of officers conscientiously devoted to their duties, he was not generally very popular. Though in private few men were more capable of the most cordial and generous friendship, in his public capacity he was too particular, too just, to be always quite pleasant and convenient. Accordingly, when he was judiciously pointed out as the most proper man for the highest office in his department, the significant question came, "Would he be likely to give trouble?"—and thenceforth he was shelved, ignobly banished to the Westmoreland lake district, much to the satisfaction of the gentle dulness of more pliant and fortunate Medical officers. But his quiet mind was not in the least soured by this treatment. He enjoyed in that beautiful seclusion his pure love of nature, and his friendship with nature's own poet—Wordsworth—and never dropped his favourite physiological pursuits.

He continued, besides, the practice of angling, having been throughout the greater part of his life an ardent and excellent fly-fisher. Of his devotion at proper seasons to this sport he has left pleasing evidence in his "Angler in the Lake District," and the "Angler and his Friend," two small octavo volumes published during his retirement. His angling tours extended far and wide—to the Hebrides, the borders of Wales, Ireland, and elsewhere. In these excursions he was often accompanied by a congenial friend, such as Mr. Gulliver, who is the "Amicus" to whom the prefatory note of "The Angler and his Friend" is addressed; and in that note the circumstances which had led to their retirement from the army, after vainly offering their services for the then looming war, are intimated. In the same note it will be seen that Dr. Davy carried to his retirement his wonted equanimity of mind, undisturbed by any alloy of discontent. And, indeed, his piscatory friends often noted the fulness of the enjoyment which they shared with him. Among these was Dr. Maunsell, a worthy brother of the angle, at whose house, near Dublin, Dr. Davy received agreeable entertainment on his way to or from the Irish fishing quarters.

Indeed, he was not only a good friend, but a most excellent husband and father. Of his tenderness in this last relation his nearest friends had painful evidence when some of his little ones sickened and died of scarlet fever; and so durable was his feeling of this sorrow, that it was ever ready to be excited in sympathy with other parents in like affliction. So, no wonder that he was wont to say that children may be sent as much to teach us as we them. His person was rather small and spare, and he had one leg somewhat bent from a fracture in early life. With a fair complexion, his hair was dark and plentiful, though kept short, and he had bright hazel eyes. But his mind was his fairest possession. In its guileless simplicity dwelt the love of natural science and its cultivators, without the slightest debasement of envy, jealousy, or rivalship. Nay, he was ever ready, and in the most friendly way, to give his valuable aid and encouragement to the physiological inquiries of all sincere students; and his profound chemical knowledge was often thus signally useful. In short, his life was passed in noble and innocent pursuits, until somewhat suddenly cut off, at the ripe age of 78, in his house at Lesketh How, near Ambleside, on January 24, 1868. He was buried hard by, amid those scenes which in life he loved so well.

"Study to be like him."

ENGLISH HOSPITAL AT METZ.

DECEMBER, 1870; JANUARY AND FEBRUARY, 1871.

(*From a Correspondent.*)

(*Concluded from page* 359.)

HAVING noticed very roughly some points which seem to me to have interest, I will conclude by giving notes of a few of the cases which have been under our care:—

Case 1.—V., aged 33, a soldier of the line, was wounded on August 14. When he first came under our charge he was in an exhausted condition, and complaining of constant pain. A bullet had passed through the right upper arm, in the neighbourhood of the shoulder-joint; its aperture of entrance was immediately below the coracoid process, and it passed out behind a little lower down. The humerus had been fractured close to its head, but had united with a certain degree of firmness; several pieces of bone had come away, abscesses had formed around the fracture, and the skin on the inside of the arm was quite undermined. There was no movement in the shoulder-joint, and it seemed probable that the scapula, as well as the humerus, was diseased. Another bullet had passed close to the elbow-joint without fracturing the bones, but intense pain was felt in the joint, and the wounds had not closed; any attempt to flex the forearm on the arm caused intense pain. The forearm and hand were very œdematous. As he was becoming more exhausted every day, we urged him to have his arm amputated, but he refused for some time.

December 27, 1870.—Superficial gangrene appeared on the back of the hand and fingers. The patient was now willing to submit to an operation, but his condition did not admit of it; his pulse was imperceptible at the wrist. He was ordered a good quantity of stimulants, and plenty of strong soup, etc., and it was decided to amputate as soon as there was any reasonable hope of success.

30th.—The gangrene had not extended, and the patient's condition had so far improved that it was decided to seize the opportunity. Chloroform was administered, and the arm removed at the shoulder-joint. A long flap, including the deltoid, was dissected up, and a short flap on the inside containing the vessels was made by passing the knife behind the head of the bone, and cutting from within outwards. In

attempting to rotate the arm during the operation, it broke again, rendering the division of the muscular attachments rather difficult. The artery was compressed above the clavicle, a very slight quantity of blood being lost. The vessels were ligatured, and the flaps brought together with metallic sutures. The patient appeared to be dying more than once during the operation, but was restored by brandy. The head of the humerus was soft and carious, and its cartilage was gone. The cartilage lining the glenoid cavity was ulcerating, but we could not find any disease of the scapula. The cartilage of the elbow-joint was diseased.

31st.—Patient passed a fair night, after taking an opiate. No bleeding has occurred this evening. He is a little feverish.

January 7, 1871.—Has gone on very well; wound suppurating freely. No sutures taken out at present. The stump is dressed with carbolised oil, after being thoroughly washed out with carbolised water. The man eats well, and takes about a bottle of sherry a day.

11th.—Is gaining strength. Nearly the whole line of incision has healed. All the sutures but three have been taken out. To-day he has no appetite, and complains of pain referred to the elbow and hand.

14th.—Still improving. All the ligatures and sutures have been taken away. Pain comes on towards evening. He takes fifty minims or a drachm of laudanum every night.

23rd.—Has been gradually gaining strength, and now walks pretty well. He still complains of pain, and has had a tolerably regular alternation of good and bad days. Has taken quinine three times a day, and lately has been taking chloral instead of opium at night. Laudanum, in doses of a drachm, has not latterly procured him any sleep. I have given him chloral in doses of twenty increased to forty grains; this always sent him to sleep immediately, and he never suffered any ill effect from it. I usually gave it dissolved in a little brandy-and-water, and it seemed to me to act more surely and quickly when so given. Some syrup of chloral which I tried was far inferior in its effects to the solid hydrate dissolved immediately before it was taken—in fact, I saw no result whatever from the syrup of chloral that I used.

February 7.—The patient left us to-day for the house of a French lady in Metz, who is taking care of a number of soldiers who have lost limbs and are without friends until the Government is sufficiently settled to give pensions. The wound is not quite healed, one point in the line of incision still discharging slightly.

15th.—I saw him for the last time to day. There is no longer any discharge; the stump is quite sound, and the man is out of doors all day. Although this patient was much reduced by his wounds, and by being confined to his bed for four months with a short allowance of food, he did very well. At that distance of time from the date of the injury, the patient was suffering from diseased bone or diseased joint, and one may expect as good results as are met with in operations for disease. The effect on the system of the original injury has long passed off, and he is suffering merely from the irritation caused by a diseased limb.

The operations which prove most fatal are those which are not performed within a few hours of the receipt of the injury, but which are performed within two or three weeks of it.

Case 2.—G., aged 38, soldier of the line, was wounded on August 16, at the battle of Gravelotte. A piece of shell had struck him on the left ankle, and before he was taken from the field a horse trod on the same foot. When he came under our care, several sinuses around the ankle-joint led to dead bone: it was evident that the astragalus and tarsal bones, as well as, perhaps, the lower end of the tibia, were severely damaged. He complained of much pain, but his general health was fair.

December 19, 1870.—I performed Syme's amputation of the foot. On opening the ankle-joint it was found quite disorganised; the articular cartilage of the lower end of the tibia was gone, and the surface of the bone carious. After sawing off a slice of the tibia and fibula, the section was so soft and vascular that it was thought best to take off another slice. This was done; the resulting section was more vascular than normal, but still much less so than the first. The lower end of the tibia was so much enlarged that the flap was barely large enough to cover it. Metallic sutures were used, and the stump was dressed with carbolised oil. On examining the foot, the astragalus and scaphoid were found smashed and the articular tissues spoilt.

22nd.—The flaps rather tense and red, so that it was necessary to loosen some of the sutures. Patient rather feverish. Morning temperature 102°.

23rd.—Stump red; does not suppurate freely. Temperature 102·3°.

25th.—Stump suppurating more freely; less red. Temperature 99·8°.

28th.—The edge of the flap is sloughing a little, and the whole flap has fallen back to some extent, though the bone is not exposed. The flap is kept up by strapping.

January 3, 1871.—The angles of the wound are uniting. General health improved. Temperature 99°.

7th.—Stump healing rapidly.

From this time the patient went on perfectly well, and when I last saw him, on February 22, the stump was quite sound, and not tender; the pad of the heel made a thick and firm covering for the ends of the bones. I have no doubt that by this time, with a suitable boot, he can walk on it. With so much injury, and with the implication of the bones of the leg, it seemed doubtful that this case would succeed; but as the stump resulting from Syme's operation is so much more satisfactory than that from amputation in the lower third of the leg, we resolved to try it.

Case 3.—A man, whose name I did not get, was brought to us from another Hospital on December 11. His left thigh was enormously swollen, the skin tense and shining. The man's face was pale and anxious; his breath had a sweetish, pyæmic odour; and he had a good deal of diarrhœa. The pulse was small and quick. His account was that he had not received any hurt, but that his thigh had been getting gradually larger for two months; he could give no cause for its coming. The pain was most severe. I made an incision at once, and let out an enormous quantity of dark-coloured pus. When the abscess was emptied I was much surprised to find that the femur was fractured. I questioned the patient about it, and he assured me that he could not in any way account for it, never having met with any accident; indeed, he did not know that it was broken until I told him. The lower end of the upper fragment could be felt on the outside of the thigh about three inches above the knee-joint; it was very sharp, as if it had been broken obliquely. The man was much relieved when the abscess had been opened, but never rallied. He died three days after admission. I was so pressed for time that I could not examine the bone after death. It seems possible that the bone had been gradually thinned by the pressure of the growing abscess.

Case 4.—A chasseur had been hit on August 16 by a piece of shell in the right groin, fracturing the pubic bone. When I first saw him two or three fragments of bone had been already extracted. I took away several other pieces, and, when they were all put together, it was evident that nearly the whole of the horizontal ramus of the right pubic bone and some of the portion forming the symphysis had come away. When we left him the patient could get about very well with crutches, and could bear with some weight on his right leg. In such cases it is well to examine the interior of the wound with the finger every two or three days. Fragments of bone become detached frequently, and when detached cause great irritation, and lead to troublesome abscesses.

REMARKABLE CASE OF IMPALEMENT.

Our readers will peruse with great interest the following case of impalement which occurred in the practice of Mr. Reynolds, of Thame, Oxon. Through the kindness of Mr. Reynolds, we have been enabled to examine the patient, whose present condition fully bears out the account kindly furnished by his partner, Mr. Humphreys, who, seeing the case at first, had the chief management of it. Mr. Humphreys states—

"Last Good Friday (April 7), George W., aged 11 years, was on a rick of straw, playing at soldiers with another boy, who, being on the ground, charged at him with a rick-stake, on which he fell, and which was driven into him. The stake, which was slightly curved at the upper part, was forty-three inches long and three inches in circumference, being very sharp-pointed at its extremity. As much as seventeen and a half inches of it entered his body. It struck him just in front of the right spermatic cord, and passed beneath Poupart's ligament into the cavity of the abdomen, traversing the whole of the cavity across to the left side, and then entered the thorax through the diaphragm, displacing the heart and pushing it to the right side of the sternum, piercing the left lung, and then passing out between the seventh and eighth ribs, and then under the muscles and integuments in the axillary space,

and along the upper third of the humerus, which it kept extended above the boy's head, the external skin not being ruptured.

"The accident occurred at 2.30 p.m., at a village five miles from Thame. Dr. Lawson, my assistant, went to attend the case, but, finding it a very serious one, sent for me to help him. I found the boy sensible, and not in much pain, and expressing a wish to have the stake removed. I determined not to give chloroform, on account of the injury to the heart and lung, and at once proceeded to remove the stake, it having been in the boy now four hours. He was held down by four strong men, whilst Dr. Lawson and I used our whole strength to remove it, taking care to have the course of the stake followed by the fingers of a gentleman present, to prevent the admission of air into the cavities. After the removal there was not more than a teaspoonful of blood lost. The heart still remained displaced. On the boy moving, a lump of the small intestines protruded from the wound, as large as an orange, which, after ascertaining that it was not torn, we replaced, and then ligatured the wound in the abdomen, and applied a cold wet compress along the whole course of the passage of the stake, and having given the boy a dose of opium, put him to bed.

"8th.—Found the boy depressed, but not in much pain. Pulse 120. Breathing difficult, and with emphysema extending over the whole body, the cellular tissue crackling on passing the hand over the surface, a great quantity of air escaping from the wound in the groin. Ordered beef-tea and weak brandy-and-water, with some diaphoretic mixture and grey powder and opium.

"9th.—The same symptoms, only with more pain. Pulse small, quick, and thready.

"10th.—Emphysema better, but symptoms of peritonitis showing themselves; bowels tympanitic and very tender; legs drawn up; great anxiety of countenance; wound dry, and not discharging; pulse 160, and very wiry. Slight spitting of reddish mucus, with severe cough and dyspnœa, and pain over left side of chest. Crepitus to be heard over the left lung. The heart still beating an inch to the right of sternum. Ordered a mustard poultice to the left side of chest, and a linseed poultice all over the bowels. Removed the sutures and pressed out about half a teacupful of bloody matter. Gave calomel gr. j., opii gr. $\frac{1}{4}$, 4tis horis. To take nothing but gruel and barley-water.

"12th.—Decidedly better. Emphysema and dyspnœa better, but crepitus still to be heard over the left lung. Not so much pain and anxiety. Pulse 130. Bowels have acted, but abdomen tympanitic and very tender. Right testicle, showing signs of severe inflammation, to be poulticed. Treatment to be continued, but the calomel and opium not quite so often, the gums being slightly sore.

"16th.—The symptoms have been gradually diminishing for the last four days. The emphysema has not quite gone, and the crepitus in left lung is much better. The wound in the groin, which was from two to three inches long, shows signs of healing, but the right testicle is sloughing out. The bowels less tender, and are acting naturally every day. Ordered beef-tea and a little wine; calomel and opium twice a day only.

"Three weeks after, the boy continuing to progress well, all treatment was discontinued; but next day all the symptoms of inflammation returned with violence. Ordered the calomel and opium again, and poultices, and to go back to the gruel, etc. Under this treatment for a few days the symptoms again abated.

"Six weeks after, the boy was able to sit up and play, and eat his ordinary food, but showed signs of an abscess in the axilla. The testicle has sloughed, and the wounds in the groin and scrotum healed. The heart is still beating an inch to the right side of the sternum. The left lung is consolidated up to the fourth rib. Ordered poultice to axilla; to take quinine and steel, cod-liver oil, and wine.

"I consider that the principal points in the case are—1st, the stake having been left in so many hours, the injured vessels in its course were sealed by the formation of coagula, and thus hæmorrhage was prevented; and 2ndly, the calomel and opium seemed to act as a charm in staying the extensive serous inflammation — for whenever we discontinued their use the symptoms returned. I have made these few remarks on the case, as so severe a stake-injury with recovery is seldom seen."

When we examined the boy, five months after the accident, he was able to walk about, and was perfectly free from pain, even on pressure. There was slight enlargement of the abdomen, with the cicatrix of the wound in the left groin; the right testicle absent. There was also a flatness of the left side of the chest, the left lung being perfectly consolidated from the fourth rib downwards, and the breathing puerile all over the right side in consequence. The apex of the heart was still beating an inch out of its right place.

REVIEWS.

A Treatise on Diseases of the Nervous System. By William A. Hammond, M.D., Professor of Diseases of the Mind and Nervous System and of Clinical Medicine in the Bellevue Hospital Medical College, New York, &c. 8vo. Pp. xxv., 774. 1871. New York: D. Appleton and Co.

[Second Notice.]

We commence our reconsideration of Dr. Hammond's volume at the point at which he takes up "Diseases of the Spinal Cord." In the second chapter of this section we find a very complete essay on "Spinal Irritation," or (as he terms it from its pathology), "Anæmia of the Posterior Columns of the Spinal Cord." In his history of this affection he gives full credit, not only to the brothers Griffin, but to several earlier British Physicians with whose names the present generation are not familiar—as, for example, Player, Brown of Glasgow (1828), Darwall of Birmingham (1829), Tate (1830), and Whatton (1831). While Dr. and Mr. Griffin based their admirable monograph on 148 well-analysed cases, Dr. Hammond tells us that his observations are based upon a careful study of 127 cases occurring in private practice during the last six years, and of which he has full notes, and 29 of which he has less complete data—in all, 156 cases. The views of a trustworthy Physician who has enjoyed so extensive an experience of a somewhat mysterious disease are worthy of all consideration, and we shall therefore endeavour to lay them before our readers. The author divides the symptoms into the *centric* and the *eccentric*. In the former he places (1) *Tenderness at some one or more points over the spinal column, increased by pressure;* and (2) *Pain in the spinal cord.* The tenderness is the essential symptom of spinal irritation. Its seat is generally in the dorsal region of the spine. Of his own cases, twenty-five had cervical tenderness only, thirty-seven cervical and dorsal, forty-five dorsal only, nineteen dorsal and lumbar, fifteen lumbar only, and in fifteen the whole spine was tender. One hundred and sixteen cases, therefore, of one hundred and fifty-six, were characterised by dorsal tenderness, and in forty-five it was limited to this region. The degree and character of the tenderness are subject to great variation, and in some cases strong pressure is required to develope it, while in others the least touch is insupportable. Sometimes there are radiating pains from the tender spot to distant points. In a gentleman now under Dr. Hammond's care, with well-marked spinal irritation in the region of the third lumbar vertebra, pressure not only causes intense suffering at that point, but developes pain along the whole course of the crural nerves and their branches, as far as their terminations on the inner sides of the feet; while a lady, who has spinal tenderness over the eighth cervical and first dorsal vertebræ, experiences, from pressure, intense pain along the course of the first intercostal, the internal anterior thoracic, and all the nerves of the left upper extremity.

"The fact," says Dr. Hammond, "that the patient denies the existence of tenderness should have no weight with the Physician. Only a few days ago a young lady consulted me for severe infra-mammary pain, headache, and nausea. I at once suspected spinal irritation, but she declared, in answer to my inquiries, that there was no sign of tenderness anywhere over the spinal column. I insisted, however, on a manual examination, and to her great surprise found three spots that were exceedingly painful to slight pressure. This young lady had been treated for dyspepsia for several years, without deriving any benefit from the measures used, but was cured by the treatment which I shall presently fully consider. Occasionally it happens that the tenderness is not perceived for some time after the pressure is made. In a recent case I found the interval to be over a minute, and then acute pain, following the course of the nerves, was experienced."—P. 411.

Passing over his remarks on the second of the centric symptoms, we come to the consideration of the *eccentric symptoms*, which he arranges, after the example of the Griffins, according to the part of the spinal cord with which they are connected. His experience of this disease is so extensive, and his remarks are so judicious, that we shall offer no apology for a somewhat long extract, embodying his chief conclusions:—

"(*a*) *The Cervical Region.*—As has been already observed, in twenty-five of the cases the irritation existed in the cervical

region only of the spinal cord, in thirty-seven the cervical tenderness was conjoined with dorsal tenderness, and in fifteen with tenderness of the whole spine. Taking the uncomplicated cases as presenting the clearest features, the following would appear to be the more prominent symptoms of cervical spinal irritation:—

"*Vertigo* was an accompaniment in eleven cases, and *headache* in fifteen; *noises in the ears* in eight, and *disturbances of vision* in four. *Fulness* and a *sense of constriction* across the forehead were complained of in several cases, as was also tenderness of the scalp. In addition, the *mind* was more or less affected in every case, and in seven the aberration was of such a character as almost to amount to insanity. In one of these, a married lady, aged 30, there were several paroxysms of maniacal excitement every day; and in another, that of a young lady, aged 23, so furious were the exacerbations that, for fear she would injure herself or others, she had to be restrained by two strong nurses, who held her while the fits lasted. The predominant type, however, was melancholia.

"*Sleep* was deranged in every case, generally in the form of insomnia, though in three cases the tendency to somnolence was excessive. In every case the dreams were of an unpleasant character; in two there was nightmare, and in one somnambulism.

"*Neuralgic pains* were present in seventeen of the twenty-five cases. If the upper part of the cervical region was the seat of the irritation, these pains were experienced in the scalp and face; if the lower, they were seated in the neck, the shoulders, upper part of the chest, and the upper extremities.

"*Motility* was interfered with in eighteen cases. Sometimes there were *fibrillary twitchings;* in five cases there were *clonic spasms* of the muscles of the face and neck; in three, *general chorea;* in two, *contractions* of the flexors of the arm on one side, so that the elbow was rigidly bent; in two, the contractions were in the flexors of the hands, and in four, of the fingers. In one case there was *complete loss of power* over the hand; in four, *aphonia;* and in one, almost constant *hiccough* while the patient was awake.

"*Nausea* was present more or less in fifteen cases, and, in one, part of everything taken into the stomach was almost immediately rejected. *Pain* in the stomach was not met with in any case.

"(*b*) *The Dorsal Region.*—I found the dorsal region of the spine tender in one hundred and sixteen cases. In thirty-seven of these it was conjoined with cervical, in nineteen with lumbar tenderness, and in fifteen it was affected with the whole spine, leaving forty-five uncomplicated cases.

"The most prominent symptoms in these cases were connected with the viscera, the stomach being the organ commonly involved. Thus, *gastralgia* was present in every case, *nausea* and *vomiting* in nine cases, *pyrosis* in three, *gastric flatulence* in forty, and *acidity*, as evidenced by heartburn, in twenty-six.

"Next in order came the heart. There were *palpitations* in twenty-six cases, fits of *oppression*, during which the heart beat with irregularity as regarded force and rhythm, in ten cases, and *attacks of syncope* in five.

"There was *difficulty of breathing* in fifteen cases, and *cough* in fifteen. *Intercostal neuralgia* existed in ten, and *infra-mammary pain* in thirty-one cases.

"There were no muscular spasms, contractions, or paralysis.

"In the thirty-seven cases in which the dorsal tenderness was conjoined with cervical tenderness, the symptoms characteristic of each region were more or less intermingled. In two cases there was *epilepsy*, and in three *chorea paralytica*.

"(*c*) *The Lumbar Region.*—This portion of the spine exhibited tenderness in forty-nine cases. In nineteen of these it was accompanied by dorsal tenderness, in fifteen the whole spine was affected, and in fifteen the tenderness was confined to the lumbar region alone. Of these latter all were characterised by *neuralgic pains* in the lower extremities, and in three of them there were similar pains in the muscles of the back and abdomen. In six there was *spasm of the neck of the bladder*, accompanied with severe pain, and causing great difficulty of urinating; in one there was *incontinence of urine;* in five *pain in the uterus and ovaries*, and in one *neuralgia of the rectum*.

"*Motility* was affected in eight cases. In four of these there were strong *tonic contractions* of the muscles of the lower extremities, and in four *paralysis*. In all of these there were occasional *clonic spasms* simulating chorea. Of the nineteen cases in which there was also dorsal tenderness, the symptoms were in general those characteristic of spinal irritation of both regions.

"(*d*) *The whole spine* was tender in fifteen cases, and so extensive was the hyperæsthesia that it was scarcely possible to press upon the most limited spot without producing pain. Of these cases the most prominent symptom in three was *epilepsy*, in one *paralysis*, sometimes of the upper and sometimes of the lower extremities, and in three *contractions* of the limbs. *Neuralgic pains*, either in the scalp, face, neck, chest, upper extremities, abdomen, or lower extremities, were present in every case, according to the part most severely affected for the time being. The heart was disordered in five cases, the stomach in ten, in three there was *difficulty of swallowing*, from alternating paralysis and spasm of the muscles of the larynx, and in two *aphonia*."—Pp. 413-415.

From this valuable analysis of the symptoms we pass on to the consideration of sex and age as causes. Of the 156 cases, 140 were females, and of 137 cases of which Dr. Hammond noted the ages, seventy-two were between 15 and 25, thirty-two between 25 and 35, fifteen under 15, and eighteen over 35.

We should not refer to the subject of treatment if he did not speak so decisively on a point regarding which just now there is much discussion—namely, the administration of alcohol. In his remarks on improving the general tone of the system he writes as follows:—"I am as well convinced of the general applicability of alcohol in some form, in the treatment of spinal irritation, as I am of anything. Whisky, brandy, and rum are to be preferred on account of their less liability to disagree with the stomach, and as containing a greater percentage of alcohol than vinous or malt liquors." We may add, that to improve the nutrition of the spinal cord he recommends a combination of strychnia and phosphorus in the form of a pill, containing half a grain of extract of nux vomica and the tenth of a grain of the phosphide of zinc, which may be given thrice a day. The application of hot water to the spine in Dr. Chapman's indiarubber bags is "an admirable adjunct," but the most efficacious remedy with which our author is acquainted is the direct galvanic current, the negative pole being placed at some point above the seat of pain and the positive pole at an equal distance below it. No single application should last longer than three or four minutes, but the process may be repeated two or three times at the same *séance* with short intervals.

In the chapter on "Spinal Meningitis" we find some valuable remarks on the treatment of the bedsores that so frequently accompany the chronic form of that disease. Although not presenting anything positively new, they contain descriptions of methods of treatment that are not so generally known as they deserve to be.

"For the cure of the bedsores the method recommended by Dr. Brown-Séquard may be used. It consists in the alternate application of sponges, one of which is saturated with hot water, and the other with cold water. This should be done for five or ten minutes every day, and the effect is to increase the activity of the circulation of the part, and to promote the formation of granulations.

"But I have generally preferred the method by galvanism first suggested and employed by Crussel, of St. Petersburg, and which I used for the treatment of indolent ulcers with almost invariable success in 1859, when Surgeon to the Baltimore Infirmary. The method was also recommended by Mr. Spencer Wells. During the last six years I have employed it to a great extent in the treatment of bedsores caused by diseases of the spinal cord, and with scarcely a failure; indeed, I may say without any failure, except in two cases where deep sinuses had formed, which could not be reached by the apparatus.

"A thin silver plate—no thicker than a sheet of paper—is cut to the exact size and shape of the bedsore; a zinc plate of about the same size is connected with the silver plate by a fine silver or copper wire six or eight inches in length. The silver plate is then placed in immediate contact with the bedsore, and the zinc plate on some part of the skin above, a piece of chamois-skin soaked in vinegar intervening. This must be kept moist, or there is little or no action of the battery. Within a few hours the effect is perceptible, and in a day or two the cure is complete in the great majority of cases. In a few instances a longer time is required. I have frequently seen bedsores three or four inches in diameter, and half an inch deep, heal entirely over in forty-eight hours. Mr. Spencer Wells states that he has often witnessed large ulcers covered with granulations within twenty-four hours, and completely filled up and cicatrisation begun in forty-eight hours. During his recent visit to this country I informed him of my experience, and he reiterated his opinion that it was the best of all methods for treating ulcers of indolent character and bedsores."—P. 454.

Passing over chapters devoted to "Acute Myelitis" and

"Spinal Softening," we arrive at the consideration of "Sclerosis of the Antero-Lateral" and "of the Posterior Columns of the Spinal Cord," the latter being the title under which "Locomotor Ataxia" is considered. The former is a disease of a somewhat vague nature, that can hardly be regarded as fully established, although Dr. Hammond says that "there is rarely much difficulty in recognising it." The gait is stated to be characteristic, although it presents considerable variations. In one of his patients it was "similar to that of a duck," whilst in another "the motion of the body was almost serpentine." The subject of locomotor ataxia, as we now usually call it, is fully discussed; and a chapter of upwards of forty pages on it abounds in sound practical matter. After describing the ordinary symptoms of this disease, as lessened sensibility, difficulties in standing and walking, and the incapacity for prolonged muscular effort, he gives the following less generally recognised and very curious symptom:—"A phenomenon is often noticed as regards the upper extremities, which also exists with the lower, but which cannot be so readily manifested; and that is, that the patient loses the ability to distinguish even considerable differences between weights. In the normal condition, if two weights, differing in the ratio of thirty-nine to forty, are put one in one hand and one in the other, the difference is perceived without difficulty. The lower extremities, according to Jaccoud, are not so sensitive, and cannot distinguish a less difference than from about fifty to seventy grammes.

"A person affected with posterior spinal sclerosis may have an ounce-weight put into his hand, and if in a few seconds it be removed, and one of half an ounce substituted, he will not be able to tell correctly which is the heavier. Or both hands may be extended, and the two weights placed simultaneously in them. The eyes should, of course, be closed. Sometimes less differences can be perceived, but ordinarily greater ones are not distinguished. In the case of a gentleman now under my charge, there is an impossibility of telling which of the two pieces of lead, the one weighing one ounce, and the other a pound, is the heavier. Späth states that, in a case under his charge, the patient could not distinguish between two weights, which differed as one to one hundred.

"No means for measuring the extent to which the patient is able to determine the state of muscular contraction is at all comparable to the dynamograph. The range of its usefulness is, however, limited, owing to the fact that posterior spinal sclerosis is not very frequently seated high enough in the cord to affect the muscles of the upper extremities."—P. 491.

When the lesion is not above the origin of the nerves which go to form the brachial plexus, the line is straight, but when it lies between the fifth cervical and the first dorsal vertebræ, it resembles the coast-line of a country abounding in projecting headlands and deeply indented bays.

From an experience of ninety-one patients affected with this disease who have been under the anthor's care during the last six years, he is not led to speak hopefully of treatment. Of the many remedies that have been tried, the only ones which he has found to produce any amelioration of the symptoms are ergot of rye (in the early stages) and bromide of potassium, which may be combined with it. A drachm of the fluid extract of the former with from thirty grains to a drachm of the latter may be given three times a day. "Cod-liver oil," he adds, "is always advantageous, and the primary galvanic current is a main feature of the treatment." In eight cases chloride of barium was given with decided benefit.

Although the prognosis must generally be unfavourable, the patient may live for many years. Of the ninety-one patients referred to as under his own care, three only (so far as he knows) have died; and he mentions two cases of persons still alive who have suffered for over twelve and twenty years respectively. Five of his patients were cured, and in a considerable number there was a marked amelioration of the symptoms.

Amongst "Cerebro-spinal Diseases" our anthor places hydrophobia, epilepsy, catalepsy, ecstacy, chorea, hysteria, multiple cerebro-spinal sclerosis, and athetosis, the latter being a new form of disease, to which we shall direct the attention of our readers on a future occasion.

We must pass over these diseases very briefly. Dr. Hammond describes a very remarkable case of hydrophobia occurring in a boy, aged only 3 years, who had been bitten three months previously by a bitch in heat, but not stated to be rabid. During his illness he talked incessantly about dogs, and invented marvellous stories regarding them, all having a tragic ending. Dr. Hammond has no faith in the efficacy of any remedy when the disease is once fully developed. In two cases reported by Dr. Schivardi, of Milan, the primary current from the soles of the feet to the forehead caused great temporary improvement. Of the chapter on "Epilepsy" we need only state that it is based on 286 cases which have come under the author's notice, in order to recommend it to the careful study of our readers; while that on "Chorea," based on 82 cases, is equally deserving of commendation. The chapter on "Multiple Cerebro-spinal Sclerosis," like the previous ones on "Sclerosis," is mainly based on the observations of the present school of French pathologists—Jaccoud, Charcot, Vulpian, Bourneville, Guérard, etc.—but additionally contains details of eleven cases that have fallen under the writer's personal observation.

The section on "Diseases of the Nerve-cells" treats of progressive muscular atrophy under the title of "Atrophy and Disappearance of Trophic Nerve-cells;" of glosso-labio-laryngeal paralysis under that of "Atrophy and Disappearance of Motor Nerve-cells;" and of organic infantile paralysis under that of "Atrophy and Disappearance" of both kinds of cells; while under "Functional Derangements of Motor Nerve-cells" are described paralysis agitans, writer's spasm, and lead paralysis.

If space had permitted it, we should have made various quotations both from this section and from the concluding one on "Diseases of Peripheral Nerves;" but under existing circumstances we must content ourselves with the remark that the latter portion of the work is fully as valuable and original as the earlier parts. We cannot conclude without a word of commendation on the extreme beauty of the numerous illustrations that are freely scattered over this admirably got-up volume.

GENERAL CORRESPONDENCE.

UNION OF TENDONS.

LETTER FROM MR. SIDNEY PARSONS.

[To the Editor of the Medical Times and Gazette.]

SIR,—The following case being illustrative of rapid union of a severed tendon, I thought perhaps you would like to insert it in your widely circulated journal:—

A. H., a farm labourer, aged 19 years, whilst cutting turnips in a machine, accidently let his hand slip between the knives on May 26. He first came under my notice on May 31, and on examining the wound I found, by the escape of the synovial fluid, that the phalangeal joint of the thumb had been opened; and on further examination that the tendon of the extensor secundi internodii pollicis muscle had been severed. I put the thumb into a gutta-percha splint, so constructed as to keep it at perfect rest, and ordered the patient to use cold water dressing for a few days, after which the "red wash" was substituted. On June 14 the wound had closed over, and a healthy granulating surface had formed, and on June 17 this was covered with a fine cuticular layer. A week after this he possessed some power of extension as well as flexion over the terminal phalanx of the wounded thumb, thus showing the tendon of the extensor secundi internodii pollicis to have become united.

He is now able to follow his employment, and can extend and flex his thumb almost as well as before.

I am, &c., SIDNEY PARSONS, M.R.C.S., L.S.A.

Romsey, Hampshire, September 5.

OBITUARY.

JOHN WILLIAM IRVINE, M.D., L.R.C.S., L.S.A.

THIS gentleman was the eldest son of Dr. James Pearson Irvine, who for a quarter of a century practised his Profession in Lancaster. He was educated in the Lancaster Royal Grammar School, and afterwards at the University of Glasgow, where his distinguished career, in anatomy especially, led to his appointment as Curator of the Museum in the Leeds School of Medicine, at which place he finished his Medical studies. He obtained his diplomas of L.R.C.S. Edin. and L.S.A. Lond. in 1859, and in 1862 became a Doctor of Medicine at St. Andrews, passing his examination with high honours. His success in Liverpool, where he commenced practice, was rapid. He was at once appointed Honorary Surgeon to the Liverpool Caledonian School, and subsequently Honorary Surgeon to the Liverpool Dispensaries. In 1864 he was elected Visiting Surgeon to the West Derby Union Hospital, where he had excellent opportunities for pursuing the Surgical branch of his Profession, to

which he had always a strong inclination. All these appointments he held up to the time of his death, doing his duty diligently, and winning the esteem of all—patients or others—with whom his position brought him in contact. He was also an Assistant-Surgeon to the First Lancashire Rifle Volunteers, where his loss is particularly felt by officers and men. By gentlemanly bearing and scholarly attainments Dr. Irvine had won the confidence of all who knew him, and had gained that position which great qualities in those practising Medicine deserve. His affable and genial manners attracted the suffering poor in his wards, and his visits were like gleams of sunshine to them. With a kind word and a willing ear for all, he won from suffering humanity a love which is better than any stone that man can raise over the grave, and left on the hearts of his fellows a better epitaph than pen can write—a character which, at the time when sea as well as earth shall give up its dead, will indeed prove a monument more telling than brass. As regards his more immediate connexion with his brother Practitioners, it may truly be said that there is none who knew him but will be sorry, and truly sorry, to hear of his untimely death. He shone chiefly as a Surgeon; and as a Surgeon, operative or otherwise, he gave unmistakable signs of becoming one of the leaders in the town in which he practised. He has contributed several essays to the Medical papers: one on "Fever in Liverpool," in the *Medical Times and Gazette*, and another on "Resection of the Clavicle, with Formation of the Entire Bone," in the pages of the *Lancet*. At the time when his illness overtook him he was engaged on a paper for the "Liverpool Medical and Surgical Reports" on amputation at the hip-joint, that paper being the result of three successful hip-joint amputations, after failure of resection of the knee-joint and disease of the femur. The unfortunate gentleman last spring suffered from relapsing fever, an attack which was probably favoured by his unremitting labours in the fever wards of the West Derby Hospital during the late fever and small-pox epidemic. He never thoroughly recovered his strength after this attack, though he still supervised the wards of his Hospital with but short intermissions. In the beginning of August, by the strong advice of his Medical friends, he was induced to undertake a voyage to Canada on board the steamship *Germany*. He suffered on the second day from severe sickness, which prostrated him so much that on the fourth day after leaving Liverpool he died quietly and painlessly of exhaustion, at the early age of 33. Owing to some unfortunate mistake in the offices of the company to whom the ship belonged, the telegram announcing his death was delayed, and thus we are only at this late hour able to announce his melancholy death.

RICHARD FILKIN, M.D.,

Was born on November 25, 1775. His father was a Lieutenant in the Royal Navy. His family afterwards resided at Chiswick, Middlesex, where he went to school at Dr. Rose's. In July, 1790, he commenced his Medical education under Mr. Dundas (afterwards Sir David Dundas, Bart.), Sergeant Surgeon to King George the Third. Seven years later he entered on his Medical and Surgical studies at St. George's Hospital, and finally passed as Member of the Royal College of Surgeons. Richard Filkin then entered the army, and ultimately became Surgeon of the North Gloucester Militia. In 1815, the regiment being disembodied, he was placed on half-pay, which he retained to the time of his death. Being relieved from military duty, he settled in private practice at Tetbury, in Gloucestershire, where he resided about fourteen years, and at which place he is now to be interred. After he had left Tetbury, he went to Glasgow University, kept his terms, and took his M.D. He never practised after this, but occupied his leisure by travelling on the Continent of Europe. Subsequently he was much in London, and eventually settled at Richmond, where he had many old friends, and where he died on the 15th inst. Dr. Filkin was a man of considerable intelligence and of agreeable conversation, and as a Medical officer of the army, his zeal and energy occasioned him to be well thought of at the Army Medical Board, especially for his "Code of Diet for the Army."

GEORGE B. NEWTON, M.R.C.S.,

Was attached to her Majesty's ship *Ocean*, having previously served in the *Rodney*. Whilst serving in Japan, he died suddenly from sunstroke. Mr. Newton had lately received promotion on account of his Professional acquirements, and in recognition of his having induced the Japanese authorities to adopt the principles of our own Contagious Diseases Act. He did not live to know of this promotion. He was a man of remarkable energy and suggestiveness. Under his superintendence, the Lock Hospitals in China and Japan were established in connexion with both services.

CHARLES ELWORTHY CUTCLIFFE, SURGEON, ETC., OF SILVERTON, DEVON,

Died on September 10, 1871. He was in practice for thirty-five years, and having been for twenty years Medical Officer to the Tiverton Union for the parishes of Silverton and Bickleigh, was eligible for superannuation. Once during his period of service he was presented by "the poor" with a present of plate—humble in itself, but highly appreciated by him. During twenty years' service under the guardians of the poor no complaint was ever made against him.

JAMES E. MALE, M.R.C.S.,

Died on Sunday last, at his residence, Euston-place, Leamington. Up to the preceding day he had been in his usual health, but was then seized with very severe abdominal pains, which resisted all treatment, and he died at the end of twenty-four hours. The symptoms seemed to indicate the existence of perforation of the stomach or intestines; but a post-mortem examination showed that death was the result of fatty degeneration of the heart. Mr. Male was one of the oldest Practitioners in the town of Leamington, and many years Surgeon to the Warneford Hospital and to the Great Western Railway. He was educated at University College.

MEDICAL NEWS.

Apothecaries' Hall. — The following gentlemen passed their Examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, September 14, 1871:—

Popham, Francis William Home, Gowler, South Australia.
Thomas, John Howell, Carmarthen.

The following gentleman also on the same day passed his first Professional examination:—

Meredith, William Henry, Queen's Hospital, Birmingham.

The autumnal registration at the Hall commences on Monday, October 2, and terminates on Saturday, the 14th.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Addison, Charles E., L.K.Q.C.P., M.R.C.S.E., and L.M.—Certifying Factory Surgeon for the Colchester District.

Baumgartner, John Richard, M.R.C.S. Eng., L.S.A. Lond.—House-Surgeon to the Norfolk and Norwich Hospital, *vice* Dr. Beverley, resigned.

Harper, John William, M.R.C.S.L. and L.S.A.—Medical Officer to the Fifth District of the Stow Union.

NAVAL AND MILITARY APPOINTMENTS.

Admiralty.—In accordance with the provisions of Her Majesty's Order in Council of February 22, 1870, Assistant-Surgeon Thomas St. J. Clerke, M.D., has been placed on the retired list of his rank, from October 5, 1870.

8th Hussars.—Staff Assistant-Surgeon David Arno Smet Thorburn, M.D., to be Assistant-Surgeon, *vice* Edmund M'Grath, promoted on the Staff.

17th Foot.—Staff Assistant-Surgeon John Ruxton, M.B., to be Assistant-Surgeon, *vice* George Wellington L'Estrange, appointed to the Staff.

70th Foot.—Staff Surgeon Samuel Fuller, to be Surgeon, *vice* Surgeon-Major Vere Webb, appointed to the Staff.

Medical Department.—Surgeon-Major Vere Webb, from 70th Foot, to be Staff Surgeon-Major, *vice* Staff Surgeon Samuel Fuller, appointed to 70th Foot; Assistant-Surgeon Edmund M'Grath, from 8th Hussars, to be Staff Surgeon, *vice* Staff Surgeon-Major Francis Reynolds, who retires upon half-pay. To be Staff Assistant-Surgeons: Assistant-Surgeon George Wellington L'Estrange, from the 17th Foot; Alexander Crombie, M.B.; George Ballingall Stuart, M.B.; Lewis Allen Irving, gentleman; John Alexander M'Cracken, M.D.; James Mayhury Beamish, M.D.; James Albert Clery, M.B.; Brodie Cruikshank, M.B.; James Coats, M.B.; John Gover Williamson, gentleman; Henry Bradford, gentleman; William James Faweett, M.B.; Henry William Joynt, gentleman; William Egerton Saunders, gentleman; David Leckie, M.B.; William Johnston Charlton, gentleman; John Ruxton, M.B.; Alfred Henry Anthonisz, M.B.; William Tobin, gentleman; Oscar Frederick Molloy, gentleman; William Joseph Moylan, gentleman; Richard Exham, gentleman; William Leavens White, M.B.; James McNamara, M.D.; Rodolph Harman, M.B.; John Bower Wilson, M.D.; George Dalton

Nugent Leake, gentleman; Joseph Walter O'Malley Martin, M.B.; Robert Henry Robinson, gentlemen; Poole Robert Gabbett, gentlemen; Matthew Daniel O'Connell, M.D.; Charles de Montmorency Palmer, M.B.; Espine Charles Robert Ward, gentleman; William Finlay, gentleman; William Price Sullivan, gentleman; John R. Dickson, gentleman; Edward Hearne Joynt, M.D.

BIRTHS.

DAVIS.—On September 12, at the Laurels, Mortimer, Berks, the wife of G. H. Davis, L.R.C.P. Edin., of a son.

HILL.—On September 15, at 5, Bedford-terrace, Upper Holloway, the wife of James Robert Hill, L.R.C.P., of a daughter.

HUNTER.—On September 14, at Bridge House, Dartford, the wife of R. H. Hunter, M.R.C.S., of a daughter.

JEFFERISS.—On September 18, at Plas Marl, Landore, the wife of Walter Robert Spence Jefferiss, M.B., C.M., of a daughter.

MACKINNON.—On July 30, at Kussowlie, East Indies, the wife of Assistant-Surgeon Charles Mackinnon, 20th Hussars, in Medical charge of Convalescent Depôt, of a son.

MENZIES.—On August 18, at Sorrento, the wife of James A. Menzies, M.D. Edin., F.R.C.S. Edin., of Naples, of a daughter.

RAYNER.—On September 13, at Teviotdale, Stockport, the wife of Edwin Rayner, M.D., of a daughter.

SKEGG.—On September 14, at 23, Northumberland-street, Trafalgar-square, the wife of John J. Skegg, L.R.C.P. Edin., of a son.

MARRIAGES.

CLARK—VINK.—On September 14, at the parish church of South Hackney, Andrew Neal, third son of R. W. Clark, M.D., late of Whitby, Canada, to Rosa Isabella, second daughter of F. Vink, Esq., Terrace-road, South Hackney.

DODSWORTH—DANIELL.—On September 7, at Christ Church, Turnham-green, Chiswick, Frederic Charles Dodsworth, L.R.C.P.L., of Oxford Villa, Turnham-green, eldest son of F. C. Dodsworth, Esq., The Lawn, Turnham-green, to Fanny, daughter of the late Neville Daniell, Esq., and niece of Feru Edwards, Esq., of Woodbine House, Turnham-green, and Hong-kong.

DUSTAN—HARTNELL.—On September 14, at Trinity Church, Valetta, John Dustan, Staff Assistant-Surgeon, to Mary Ann Elizabeth, only daughter of the late Rev. M. A. Hartnell, M.A., of Tresco, Sicily.

EAGER—FURNIVALL.—On September 19, at Shere, Cawley Eager, M.D., M.R.C.S., son of John King Eager, M.R.C.S., of Ripley, Surrey, to Grace Isabella, daughter of William Henry Furnivall, Esq., of 16, Grafton-square, Clapham.

GRIFFITH—BOULTON.—On September 14, at St. Mary's, Bryanston-square, Captain V. S. Griffith, Adjutant of the East York Royal Volunteers, son of the Rev V. Pole Griffith, rector of Tullaghobeghy, diocese of Raphoe, to Fanny, youngest daughter of Robert George Boulton, M.D., and J.P. of Beverley, East Yorkshire.

MCSHEEHY—HIRST.—On September 13, at St. Ann's Church, Leeds, Louis McSheehy, F.R.C.S.I., Surgeon 12th Regiment, to Theresa Mary, only daughter of Joseph Hirst, Esq., Mount Cross, Bramley, Leeds.

MORGAN—BIRD.—On September 14, at St. Mary's, Melcombe Regis, Weymouth, Herbert, only son of the late M. Morgan, M.D., of Charlotte-street, Bedford-square, London, to Mary Amelia Anne, second daughter of William Salter Bird, Esq., of Semingtou, Wilts.

WHITE—PRICHARD.—On September 9, Dr. William White, Surgeon-Major (Artillery Brigade), of the Bengal Presidency, M.D. and F.R.C.S., of 3, Inverness-terrace, and of Court Lees, near Canterbury, Kent, to Selina Taylor Prichard, of 49, Westbourne-park, second daughter of the late William Taylor Prichard, Esq.

DEATHS.

CAMERON, HELEN GRANT, on August 21, aged five years; also, on the 22nd, Alan Martin, aged ten months, children of A. G. M. Cameron, M.D., at Lundavra, Essequibo, British Guiana.

FILKIN, RICHARD, M.D., only son of the late Lieutenant Richard Filkin, R.N., at his residence, Ormond-terrace, Richmond, Surrey, on September 15, in the 96th year of his age.

KING, LOUISA, the wife of Dr. William Grimwood King, at Parkfield-villas, King Edward's-road, South Hackney, on September 18.

MACLEAN, MILDRED, eldest daughter of the late William Maclean, Surgeon, Chatham, at 3, Edwardes-place, Kensington, W., on September 12.

MALE, JAMES EDWARD, M.R.C.S.E., at his residence, Euston-place, Leamington, suddenly, from heart disease, on September 17, aged 56.

MITTON, JOHN, M.R.C.S.E., at Wildbad, Germany, on September 4, aged 31.

NEWBOLD, EDWARD, Surgeon, of Macclesfield, at Worthing, on September 18.

ROBINSON.—At Newbury, Berks, on September 15, the dearly loved wife of R. P. Robinson, Surgeon, aged 78.

TRAVERS, MARY CAROLINE, daughter of Dr. Travers, at Kensington, on September 17, aged 9 months and 12 days.

TROSH, ANNE ELIZABETH, widow of Frederick Charles Trosh, M.D., late of Bombay Medical Staff, at Torquay, on September 9, aged 63.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

DUDLEY GUEST HOSPITAL.—Resident Medical Officer. Must have both Medical and Surgical qualifications, and be registered. Applications and testimonials to the Rev. G. Y. Osborne, St. Edmund's Vicarage, Dudley, on or before October 14.

GAINSBOROUGH DISPENSARY.—House-Surgeon. Must be duly qualified and registered. Applications and testimonials to Mr. F. C. Spouncer, on or before October 4. Election on the 19th.

KENT AND CANTERBURY HOSPITAL.—House-Surgeon and Dispenser. Must be duly qualified and registered under the Medical Act, 1858. Applications and testimonials to the Secretary, at the Hospital, on or before September 29. Personal attendance is desirable. Further particulars of the Secretary.

LIVERPOOL DISPENSARIES.—Resident House-Surgeon. Must be duly qualified. Applications and testimonials to the Secretary, on or before September 27. Election the following day at 2 o'clock p.m.

MANCHESTER ROYAL INFIRMARY.—Physician's Assistant. Must possess both Medical and Surgical qualifications. Applications and testimonials to the Chairman of the Weekly Board, on or before September 23.

MIDDLESEX HOSPITAL.—Assistant-Surgeon. Candidates to send their applications and testimonials to Mr. Henry N. Custance, on or before September 26. Election on October 3.

NARBERTH UNION.—Medical Officer for District No. 3. Candidates must have the qualifications prescribed by the Local Government Board, and must have a knowledge of the Welsh language. Applications and testimonials to Mr. John Thomas, Clerk, on or before September 23. Election September 25.

PARISH OF UNST, SHETLAND.—Medical Officer. Applications and testimonials to Mr. White, Inspector of the Poor.

QUEEN ADELAIDE'S DISPENSARY, POLLARD-ROW, BETHNAL-GREEN.—House-Surgeon. Must be a member of one of the Colleges of Surgeons of London, Edinburgh, or Dublin, and L.S.A. Applications and testimonials to the Rev. T. Peckston, 260, Cambridge-road, London, E., on or before October 3. Election on October 6.

ROYAL ORTHOPÆDIC HOSPITAL.—House-Surgeon and Apothecary. Must be M.R.C.S. and L.A.C., or possess the certificates of Medical and Surgical qualifications of some British University, College, or Corporation by charter. Applications and testimonials to the Secretary, 315, Oxford-street.

STOCKPORT INFIRMARY.—House-Surgeon. Must have both Medical and Surgical qualifications. Applications and testimonials to the Hon. Sec., on or before September 27. Election on October 2.

WARMINGTON DISPENSARY.—Resident Surgeon-Apothecary. Must have the qualifications which are required of candidates for appointments in the Poor-law Medical Service. Applications and testimonials to the Honorary Secretary, on or before October 2.

WESTMINSTER HOSPITAL.—House-Physician. Must be qualified to practise under the Medical Registration Act of 1858. Applications and testimonials to the Secretary, on or before October 1. Election on October 10.

WHITCHURCH UNION.—Medical Officer wanted for the Overton District. Candidates must have the qualifications prescribed by the Orders of the Local Government Board. Applications and testimonials to Mr. Spencer Clarke, Clerk, on or before September 25, at 9 a.m. Election the same day.

WORKSOP DISPENSARY.—Resident Surgeon. Must have both Medical and Surgical qualifications. Applications and testimonials to the Committee, on or before September 23. The duties commence November 1.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1861.

RESIGNATIONS.

Warminster Union.—Mr. Philip Grubb has resigned the Warminster District; area 7103; population 6263; salary £95 per annum—the Corsley District; area 5066; population 1616; salary £50 per annum—and the Workhouse; salary £35 per annum.

APPOINTMENTS.

Lexden and Winstree Union.—Henry D. Palmer, M.R.C.S. Eng., L.S.A., to the Eighth District.

Macclesfield Union.—James Allen, M.R.C.S. Eng., L.S.A., to the Adlington and Bollington District. John L. Rushton, M.D. St. And., M.R.C.S. Eng., L.S.A., to the Sutton and Rainow District.

Rugby Union.—Fred. Wm. Wimberley, M.R.C.S. Eng., L.S.A., to the Brinklow District.

Tenterden Union.—Wm. H. C. Tessier, M.D. St. And., L.R.C.S. Edin., L.S.A. Lond., L.A.H. Dub., to the Biddenden District.

UNIVERSITY OF TORONTO. — Dr. Alleyne Nicholson, lately Lecturer on Natural History in the Medical School of Edinburgh, has been appointed to the Chair of Natural History in the University of Toronto, Canada West.

VETERINARY COLLEGE, EDINBURGH. — Dr. G. W. Davidson, of Edinburgh, has been elected to the Chair of Zootomy or Comparative Anatomy, and Mr. Thomas Walley, M.R.C.V.S., of Manchester, to that of Cattle Pathology.

THERE was a small diminution in the deaths in Paris last week, the number being 827, against 945 the previous week.

MAX LOEWENSTEIN, in the Berlin *Centralblatt*, maintains, contrary to the statements contained in most anatomical text-books, that the vaginal mucous membrane is supplied with lymph glands. These vary in number in different individuals, and are most abundant on the upper surface of the canal. In structure they resemble the solitary glands of the small intestine.

SMALL-POX is alarmingly increasing at Brentford. In a few days nineteen persons have died of the epidemic at Old Brentford. Nine new cases are reported in New Brentford, and seven deaths in Bull-lane; and numerous other cases are reported in the immediate neighbourhood.

THE Mauritius papers state that a fever almost similar to that which so long devastated the Mauritius has appeared in a very bad form in Madagascar.

NOTES, QUERIES, AND REPLIES.

"He that questioneth much shall learn much."—*Bacon.*

C. W. S., Adlington, near Chorley.—Yes, man is an animal. Not necessarily a brute by nature; only sometimes.

Nemo is correct in his opinion.

X. is exempt. The Secretary of the College of Surgeons will furnish him, on application, with the papers he requires.

York can register the diplomas referred to by the payment of 5s. by application to Dr. Francis Hawkins, 32, Soho-square, London, W.

Candidate.—Under the peculiar circumstances of the case, we think you would be admitted for examination. Our correspondent should address a memorial stating the whole facts of the case to the Clerk of the Apothecaries' Company, Blackfriars.

A Partner is bound both by law and equity to the covenants of the agreement. It is not only necessary that he should not reside within three miles, but that he should attend no patient residing within that distance.

Parens.—We do not recommend any particular school. In our "Students' Number" all particulars will be found to enable our correspondent to choose a place of study for his son.

Studens had better consult his teachers as to the books he should use to assist him in his studies.

A. B. must pass the Preliminary Examination. The term "Professional studies" has reference to his entering a Medical school, and has no relation to his apprenticeship.

Anxious (Bath).—The case is one quite amenable to treatment. Our correspondent should place himself under the care of any respectable Surgeon in his own town, and should avoid as a pestilence advertising adventurers, who will not only rob him of his money but ruin his health. The person to whom reference is made is an arrant quack.

A Provincial Student.—The Primary and Pass Examinations for the diploma of Membership of the Royal College of Surgeons will take place about the middle of November. The exact dates will be duly advertised in the *Medical Times and Gazette.*

Dr. M., Fowey, Cornwall.—Sir Humphry Davy is to have a statue, which will be erected in Penzance, the place in which Dr. Beddoes found him serving his apprenticeship to a Surgeon. £500 has already been subscribed. Sir Christopher Wren, the architect, and Locke were Medical men.

Pharmacy.—It is true that at a meeting of the Pharmaceutical Council, on the 6th instant, the election of two homœopathic "registered chemists and druggists" was defeated by a majority of one!

Decrease of Small-pox.—In the year 1865 the deaths from small-pox in England and Wales, when the estimated population was 20,990,946, numbered 6411, and in 1869, when the population was 21,869,607, only 1565. The deaths in that year were 494,828, and in 1865 the number was 490,909.

E. R., Stockwell.—Professor Pryme, M.P., who died in 1868, states in his autobiography that when he first saw Lincoln's-inn-fields, the centre was a mere grass field with sheep feeding on it. Many of the great lawyers of the time had houses there—as Lords Kenyon, Erskine, and Sir F. M. Eden—who proposed converting it into an ornamental garden; whereupon Erskine said, "If so, it must be called the *Garden of Eden.*"

"*Incomes.*"—It is recorded of Radcliffe, that in 1691, when his fame was so great that everybody flocked to him for advice, that his neighbour, Dr. Gibbons, received £1000 a year—a large sum in relation to the value of money at that period—from the overflow of patients who were not able to get admission to the great Physician of the day. In 1707—seven years before his death—his fortune amounted to £80,000.

Progress of Growth in the various Provinces of France.—Dr. Chéron, "On Medical Art in relation to Military Organisation," gives some curious details with regard to the period of growth in the human being. The average number of Frenchmen liable each year to military service having attained the age of 20 is 325,000, but about 61,000 are exempt from various causes, of which deficient height is one of the most frequent. This, Dr. Chéron thinks, is not a sufficient ground for exemption, as the time required to reach the full development of the stature varies considerably in different races. The population of France, being composed of mixed races, presents great differences as regards height, and the duration of growth greatly varies from one region to another, according to the origin of the inhabitants. The descendants of the aboriginal Gauls, occupying the central zone of France, from the Alps to the Atlantic, scarcely reached their full height before the age of 26. The inhabitants of the South, springing from Greeks, Romans, and Gauls, attain their complete stature at 23 years of age. In the North-east of France the descendants of Belgians, Northmen, Flemings, and Germans are not fully grown till they reach the age of 26. Dr. Chéron quotes the opinion of Dr. Larry, a great authority in such matters, to the effect that a low stature is more often coincident with a strong constitution than a very high one.

The Correspondent who complains that the communication sent to us was not inserted seems to labour under a strange mistake respecting the duties of an editor. It remains for him to determine the value of contributions sent him with the view of being published. The authors of such communications are not always the best judges of their own productions, though generally they have a very exalted opinion respecting them. We cannot admit that the dictum of a "layman" with respect to the action of medicines, and their value in certain disorders or diseases, can be fairly put in competition with that of a Physician of extensive practice.

A Middlesex Hospital Student.—Yes; the session was opened by an introductory address by Sir Charles Bell. We cannot recommend that address as a truthful exposition of the "hopes and fears" of a Medical life. With all his unquestionable genius, vast acquirements, and brilliant discoveries, Sir Charles was really a "disappointed man." He never succeeded in practice in London. There were causes for this, to which it is not necessary to allude. But he felt his failure most poignantly, and expressed his dissatisfaction in unmeasured terms. Late in life the Government found out his merits, and appointed him to a chair in the University of Edinburgh. This was a paltry reward for eminent services to mankind; but it must be remembered that it is not without a "precedent." Government showed their appreciation of Burns by making him an Excise man. "They manage these things better in France."

Prussian Army Medical Department in the late War.—Sir Randal H. Roberts, Bart., in his recently published book, "Modern War, or the Campaigns of the First Prussian Army, 1870-71," says, "Perfect, however, as the organisation of the Prussian Army is in most respects, one portion seems to require a most thorough remodelling. I refer to the Medical Department. As it was in our service, so it is here: many an officer would rather endure pain and suffering than send for his regimental persecutor." The passage concludes thus:—"It is true that during the war many eminent Medical men from Berlin, and all the German towns, flocked to assist their country; but I am sorry to say that the want of good and efficient Medical men was deeply and fearfully felt." Sir R. Roberts went out at the commencement of the war as special military correspondent to the *Daily Telegraph*, and followed the fortunes of the 1st Prussian Army from the beginning to the end. His book, therefore, contains an eye-witness's account.

Spes.—The appointments referred to rest with the Secretary to the Colonies. The emoluments are not always in a ratio to the duties to be performed, but an energetic Surgeon may derive great advantage from such an appointment. It is a mistake to suppose that his practice is limited to his official duties. We could give several instances in which a colonial appointment has given the possessor the means of obtaining distinction and fortune. The case to which our correspondent refers is quite an exceptional one. There can be no doubt that Dr. A. was a man of great talents and acquirements, but he had the misfortune to be possessed of a very irritable temper and a brusqueness of manner which interfered seriously with his success as a private Practitioner in the colony to which he was appointed. He contributed largely to our knowledge of the natural history of the district in which he officiated. We quite agree with the opinion of our correspondent, that his labours in the cause of science gave him a just claim on the Government for some peculiar recognition. This he did not obtain, and we believe his family are at the present moment in a state of all but destitution.

Quackery at the Time of the Plague.—The following extract from Defoe's "Memoirs of the Plague" (new edition, Wm. Tegg) may not be without interest at the present time:—

"As for quackery and mountebanks, of which the town was so full, I listened to none of them, and observed often since, with some wonder, that for two years after the Plague I scarcely heard or saw one of them about the town. Some fancied they were all swept away in the infection to a man, and were for calling it a particular mark of God's vengeance upon them, for leading the poor people into the pit of destruction merely for the lucre of a little money they got by them; but I cannot go that length neither. That abundance of them died is certain, many of whom come within the reach of my own knowledge; but that all of them were swept off I much question. I believe rather they fled into the country and tried their practices upon the people there, who were in apprehension of the infection before it came to them. This, however, is certain: not a man of them appeared for a great while in or about London. There were, indeed, several Doctors who published bills recommending their several physical preparations for cleansing the body, as they call it, after the Plague, and needful, as they said, for such people to take who had been visited and had been cured; whereas, I must own, I believe that it was the opinion of the most eminent Physicians at that time that the Plague was itself a sufficient purge, and that those who escaped the infection needed no physic to cleanse their bodies of any other things—the running sores, the tumours, etc., which were broken and kept open by the directions of the Physicians, having sufficiently cleansed them—and that all other distempers and causes of distempers were effectually carried off that way; and as the Physicians gave this as their opinion wherever they came, the quacks got little business."

REST.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In this age of gigantic enterprise the poor human brain, stimulated beyond allotted capacity, too frequently gives way. The metal and the earthenware crock float but a short time together down the stream. The majority must fail in the race for wealth, fame, and position—*Væ victis!* Want of sleep, want of rest, all busy men suffer from. This letter is written on a calm Sabbath morning—the sun, as well as the sky, all but

Italian; the shops closed; the hum of business pleasantly changed into the melodious chimes of the village church bells, inviting us to come and find rest in public worship, inviting us to thank Providence for all mercies bestowed, and to pray for help and comfort in the trials of the future. Last night a welcome shower of rain has improved the green velvet turf of the little garden. The sweet simple roses are gone, tolerably replaced by hollyhocks, China asters, dahlias, and double geraniums; and the hardy chrysanthemums promise a variegated blaze later on.

Lord Shaftesbury, speaking of Sunday—the "pearl of days," the period for repairing all the wear and tear of the mind and the body during the week—looks upon it as a day which may be devoted to many family duties, to social intercourse, and to innocent enjoyments. Some people could afford to pay double fees, or, at all events, frequently be more considerate. Instead of a day of rest, jaded and tired, we shall find it hot and oppressive in the sick-rooms about to be visited. On the list are cases of choleraic diarrhœa, scarlet and typhoid fevers. Unavoidably we must run the risk of conveying infection to other patients, or, more likely, to our own families. A pretty wioning child—the only one after many longing years of married life, and heir to property—is rapidly sinking. The spring flowers will mark poor little Jack's early grave. The grief of the parents will only die with them.

Sufferers only can appreciate the mental agony of battling with work after a sleepless night. Opium, henbane, chlorodyne, chloral, bromides, hypodermic injections, purgatives, tonics, alcohol, electricity, baths, etc., will temporarily stupify into narcotism, followed by depression—*par après!* London Physicians, as well as patients! never work after dinner; mix in society; take a holiday whenever practicable; rest on Sundays; and if these remedies fail, go to the play. Depend upon it, the "play's the thing:" we are shaken out of ourselves temporarily; or, as Rousseau puts it, "go to theatres, there weep at misfortune, and, returning home, imagine ourselves happy and virtuous." The Prince of Wales, Mr. Gladstone, Sir William Fergusson—indeed, most busy men (editors especially)—are great dramatic patrons. Austere clerical dignitaries have innocently enjoyed Sothern in *David Garrick*, Mrs. Rousby (a Doctor's daughter) in *Joan of Arc*, and Toole in *Aladdin*. The Bishop of Manchester, complaining that courting hours were short and fleeting, and the days of wedlock long (and sometimes dreary), ought to go to the Strand to see the *Heir-at-Law*.

Major Magnum Bonum, a martinet on parade, a lamb at home, meanly taking advantage of his wife's absence ("Dolly Vardening" at Ryde), insists on a full-dress inspection of the kitchen utensils, including the blacking brushes—all on the Prussian system. The Tichborne claimant suggested a dose of physic would do the Solicitor-General a deal of good. Ah! these are not the times "when weariness can snore upon the flint, and restive sloth find the down pillow hard."

To all fussy, nervous, restless mortals let a portly Practitioner recommend Dr. Pangloss, LL.D., and recently elected (more judiciously than some of the others) F.R.C.P.

COMMUNICATIONS have been received from—

Dr. Littleton; Mr. Stothard; Dr. Rigge; Mr. J. E. Cutcliffe; Dr. Eade; F.R.C.P.; C. W. S.; Dr. Farber; Mr. C. F. Maunder; Mr. S. Turner; Dr. J. J. Sregg; Dr. Cousins; Mr. T. R. Tallack; Dr. W. H. Broadbent; Dr. B. W. Richardson; Mr. H. Morris; Dr. J. J. Ridge; Dr. Day; Mr. J. Chatto; Mr. Henry Bullock; Dr. F. R. Hogg; Dr. E. Hughes; Mr. Shirley Deakin; J. S.; Mr. Le Gros Clark; Messrs. Blackwood and Sons.

BOOKS RECEIVED—

Epidemic Cholera, by Edward Ambrose Fitzgerald, Surgeon Bengal Medical Service—Report of the Reigate and Redhill Cottage Hospital, 1870-71—Carbolic Acid from a Septic Point of View, by J. Milner Fothergill—Green on Morbid Anatomy—Mortality Experience of the Prudential Assurance Company.

PERIODICALS AND NEWSPAPERS RECEIVED—

Gazette des Hôpitaux—L'Union Médicale—Pharmaceutical Journal—Dublin Evening Telegraph—Medical Press and Circular—Dublin Freeman's Journal.

APPOINTMENTS FOR THE WEEK.

September 23. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

25. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

26. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

27. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

28. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; West London, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

29. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

VITAL STATISTICS OF LONDON.

Week ending Saturday, September 16, 1871.

BIRTHS.

Births of Boys, 1111; Girls, 1100; Total, 2211.
Average of 10 corresponding weeks, 1861-70, 1957·1.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	672	750	1422
Average of the ten years 1861-70	640·8	602·2	1243·0
Average corrected to increased population	...	...	1367
Deaths of people above 90	...	...	...

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561189	3	4	3	...	7	2	4	1	43
North ...	751688	19	...	7	2	6	2	11	...	55
Central ...	333887	1	2	2	3	4	3	2	...	19
East	638928	15	4	2	...	6	3	2	4	63
South	966132	19	6	18	3	9	1	6	6	88
Total	3251804	57	16	32	8	32	11	25	11	268

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·966 in.
Mean temperature	62·6°
Highest point of thermometer	78·6°
Lowest point of thermometer	52·5°
Mean dew-point temperature	52·9°
General direction of wind	N.E.
Whole amount of rain in the week	0·00 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, September 16, 1871, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1871.*	Persons to an Acre. (1871.)	Births Registered during the week ending Sept. 16.	Deaths Registered during the week ending Sept. 16.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3263872	41·8	2211	1422	78·6	52·5	62·6	17·00	0·00	0·00
Portsmouth ...	113450	11·9	77	48	77·8	52·4	61·6	16·44	0·33	0·84
Norwich	80533	10·8	46	60	70·5	48·0	59·2	15·11	0·00	0·00
Bristol	183298	39·1	150	84	...	...	...	...	...	...
Wolverhampton ...	68476	20·2	46	46	71·6	49·7	58·3	14·61	0·01	0·03
Birmingham ...	344980	44·1	328	208	73·5	49·0	57·7	14·28	0·16	0·41
Leicester	95882	30·0	87	74	...	...	...	...	...	...
Nottingham ...	86929	43·6	56	56	73·5	48·2	59·3	15·16	0·06	0·15
Liverpool	494649	96·8	430	319	72·3	49·5	57·4	14·11	0·00	0·00
Manchester ...	356099	79·4	278	279	72·7	49·2	60·2	15·66	0·00	0·00
Salford	125422	34·3	97	98	72·8	47·1	57·4	14·11	0·00	0·00
Bradford	146987	22·3	98	87	70·0	48·4	57·3	14·05	0·00	0·00
Leeds	260657	12·1	229	213	71·0	47·0	57·7	14·28	0·13	0·33
Sheffield	241507	10·6	185	167	70·0	45·0	57·0	13·89	0·21	0·53
Hull	122266	34·3	83	73	68·0	46·0	56·2	13·44	0·02	0·05
Sunderland ...	98797	29·9	94	96	...	...	...	...	...	...
Newcastle-on-Tyne	128677	24·1	109	101	64·0	43·0	53·0	11·67	0·12	0·30
Edinburgh	201728	45·6	124	74	66·7	42·0	54·5	12·50	0·00	0·00
Glasgow	479227	94·7	330	226	67·0	42·4	56·3	13·50	0·00	0·00
Dublin (City, etc.)	310565	31·9	197	144	70·5	45·2	55·7	13·16	0·04	0·10
Total of 20 Towns in United Kingd'm	7204001	33·8	5255	3875	78·6	42·0	57·7	14·28	0·06	0·15

At the Royal Observatory, Greenwich, the mean reading of the barometer in the week was 29·97 in. The highest was 30.12 in. on Thursday morning, and the lowest was 29·70 in. on Sunday night.

* The figures in this column are the unrevised numbers enumerated in April last, raised to the middle of the year by adding 1-40th of the rate of increase which prevailed between 1861 and 1871. As the population of Dublin and its suburbs showed a decline between the Censuses of 1861 and 1871, the enumerated number in April last has been inserted above for that city, the population being assumed to be now stationary.

St. George's Hospital Medical School.

—The WINTER SESSION will commence on MONDAY, 2nd OCTOBER, with an Introductory Address by Dr. John Clarke, at 2 p.m., in the Hospital.

The system of clinical teaching has been arranged so as to afford every Student personal instruction in the wards from the Physicians and Surgeons themselves.

Special departments have been organised for practical instruction in Midwifery, Ophthalmic Practice, Orthopædic Surgery, Skin Diseases, Vaccination, and Dentistry. Lectures on Public Health are given by the Lecturer on Medicine.

Pathology (including Morbid Anatomy), Psychological Medicine, and Comparative Anatomy are taught in distinct courses of lectures.

Instruction is given in all the special modes of Medical and Surgical investigation.

The following paid offices are offered for competition annually—viz., Obstetric Assistant, Curator of the Museum, Demonstrator of Anatomy, Medical and Surgical Registrars.

The House-Physicians and House-Surgeons are selected by merit from among the Perpetual Pupils without payment, board and lodging in the Hospital being provided at the expense of the Governors.

The London Hospital and Medical

COLLEGE.—The next WINTER SESSION will commence on MONDAY, OCT. 2nd, 1871, when the Introductory Lecture will be given, at 3 p.m., by Dr. W. J. Little, formerly Physician to the London Hospital. After the Introductory Lecture, the Prizes will be distributed by John Adams, Esq., Consulting-Surgeon to the London Hospital.

The BIENNIAL FESTIVAL will be held at the LONDON TAVERN, at 6 p.m.—T. B. CURLING, Esq., F.R.S., Consulting-Surgeon to the Hospital, in the Chair.

General Fee to Lectures and Hospital Practice, £90, payable in two instalments of £45 each. Library fee, £1 1s. Special entries can be made to Lectures or Practice.

The Hospital contains 570 beds. There are Medical and Surgical Wards for Children, Wards for Syphilis, Special Departments for Diseases of Women, Diseases of the Eye, Diseases of the Ear, Diseases of the Skin, and Special Arrangement for Diseases of the Throat. A Maternity Department exists for the delivery of lying-in women at their own homes. 835 cases were attended last year by the Students of the Hospital.

For Instruction in Mental Diseases, Students can attend, without further fee, the Practice of Dr. John Millar, Medical Superintendent of Bethnal House Asylum, a few minutes' walk from the Hospital. Clinical Lectures, both Medical and Surgical, will be given every week, and Practical Instruction imparted in all the Departments.

The In-patients during 1870 were 5213, and the Out-patients 63,736; total, 68,949.

At the Medical College, which has been enlarged, Lectures will be given on all subjects required by the Examining Boards.

MEMBERS OF THE STAFF AND LECTURERS AT THE COLLEGE.—Mr. James Luke, F.R.S., Mr. John Adams, Mr. Curling, F.R.S., Dr. Herbert Davies, Dr. Andrew Clark, Dr. Ramskill, Dr. Langdon Down, Dr. Hughlings-Jackson, Dr. Morell-Mackenzie, Dr. Sutton, Dr. Fenwick, Dr. Woodman, Mr. Jonathan Hutchinson, Mr. Maunder, Mr. Cooper, Mr. Walter Rivington, Mr. Jas. Adams, Mr. Warren Tay, Mr. McCarthy, Mr. Reeves, Dr. Head, Dr. Palfrey, Mr. Barrett, Dr. Letheby, Dr. Meymott Tidy, Dr. Prosser James, Mr. J. E. D. Rodgers, and Mr. Gilbert Baker.

The following Prizes and Appointments are open without further payment to Students paying the general fee of £90:—

Seven Scholarships to be offered for competition in the Winter Session.

1. A Scholarship of £30 to the Student of less than three months' standing who passes in October the best examination in the subjects required at the Preliminary Examinations.
2. A Scholarship of £20 to the Student of less than three months' standing placed second in the above examination.
3. A Scholarship, value £20, in Human Anatomy for first year Students, to be awarded in April, 1872.
4. A Scholarship, value £25, in Anatomy, Physiology, and Chemistry for first year and second year Students, to be awarded in April, 1872.
5. A Hospital Scholarship, value £20, for Clinical Medicine, to be awarded in April, 1872.
6. A Hospital Scholarship, value £20, for Clinical Surgery, to be awarded in April, 1872.
7. A Hospital Scholarship, value £20, for Clinical Obstetrics, to be awarded in April, 1872.

The Duckworth-Nelson Prize, value £10 10s., for Practical Medicine and Surgery (biennial).

Money Prizes to the value of £60, given annually by the House-Committee for zeal in Dressing Out-patients and Knowledge of Minor Surgery.

Certificates of Honour in all the Classes, according to the results of the general examinations at the end of the session, and Special Certificates to those who have fulfilled with credit the duties of Hospital appointments.

Four House-Surgeoncies, tenable for three or six months, and Dresserships to In-Patients, open to all.

Dressership to Out-Patients, with the privilege of competency for the Prizes above mentioned.

The office of Resident Medical Officer, tenable for two years, with a salary of £75 for the first year and £100 for the second year. The office of Junior Resident Medical Officer, tenable for six months.

Four Medical Assistantships, held for three months, with residence and board in the Hospital for three weeks.

The office of Resident Accoucheur, tenable for six months.

N.B.—The holders of all the resident offices are provided with rooms and board free of expense.

Two offices of Clinical Assistant in the Medical Out-Patients' Department, each at a salary of £40.

Two offices of Clinical Assistant in the Surgical Out-Patients' Department, each at a salary of £40.

The office of Medical Registrar; salary, 25 guineas.

The office of Surgical Registrar; salary, 35 guineas.

Prosectors of Anatomy, Ward Clerks, and Post-mortem Clerks.

A prospectus, giving details, will be forwarded on application to the Bedell of the London Hospital Medical College, Turner-street, E. Further information may also be obtained from Mr. J. Adams, Treasurer, 10, Finsbury-circus, E.C.; Mr. Rivington, Dean, or Mr. Warren Tay Vice-Dean, at the Medical College.

St. Thomas's Hospital.—The Medical

SESSION for 1871 and 1872 will commence at the New Hospital, on the Albert Embankment, Westminster-bridge, S.E., on MONDAY, the 2nd OCTOBER, 1871, on which occasion an Inaugural Address will be delivered by Mr. Le Gros Clark, at Two o'clock, after which the Distribution of Prizes will be made by Sir Francis Hicks, Treasurer.

Gentlemen entering have the option of paying £40 for the first year, a similar sum for the second, £20 for the third, and £10 for each succeeding year; or, by paying £105 at once, of becoming perpetual Students.

PRIZES AND APPOINTMENTS FOR THE SESSION.

First Year's Students—Winter Prizes, £20, £15, and £10; Summer Prizes £15, £10, and £5.

The Wm. Tite Scholarship, founded by Sir Wm. Tite, C.B., M.P., F.R.S., the proceeds of £1000 Consols, tenable for three years, is awarded every third year.

Second Year's Students—Winter Prizes, £20, £15, and £10; Summer Prizes, £15, £10, £5; the Dresserships and the Clinical and Obstetric Clerkships.

Third Year's Students—Winter Prizes, £20, £15, and £10; Mr. George Vaughan's Cheselden Medal, the Treasurer's Gold Medal, the Grainger Testimonial Prize, the Two House-Physicianships, the Two House-Surgeoncies, the Resident Accoucheurships; Two Medical Registrarships, at a salary of £40 each, or one at £80, are awarded to 3rd and 4th year's Students, according to merit.

MEDICAL OFFICERS.

Honorary Consulting-Physicians—Dr. Barker and Dr. J. Risdon Bennett. Dr. Peacock, Dr. Bristowe, Dr. Clapton, Dr. Murchison, Dr. Barnes, Mr. Le Gros Clark, Mr. Simon, Mr. Sydney Jones, Mr. Croft, Mr. Liebreich, Dr. Stone, Dr. Ord, Dr. John Harley, Dr. Payne, Dr. Gervis, Mr. MacCormac, Mr. Francis Mason, Mr. Hy. Arnott, Mr. J. W. Elliott.

Medicine—Dr. Peacock and Dr. Murchison. Surgery—Mr. Le Gros Clark and Mr. Sydney Jones. General Pathology—Dr. Bristowe. Physiology and Practical Physiology—Dr. Ord and Dr. John Harley. Descriptive Anatomy—Mr. Francis Mason and Mr. W. W. Wagstaffe. Anatomy in the Dissecting-room: Anatomical Lecturers—Mr. Rainey and Mr. Wm. Anderson. Chemistry and Practical Chemistry—Dr. A. J. Bernays. Midwifery—Dr. Barnes. Practical and Manipulative Surgery—Mr. Croft and Mr. MacCormac. Physics and Natural Philosophy—Dr. Stone. Materia Medica—Dr. Clapton. Forensic Medicine and Hygiene—Dr. Stone and Dr. Gervis. Comparative Anatomy—Mr. C. Stewart. Ophthalmic Surgery—Mr. Liebreich. Botany—Dr. Wale Hicks. Dental Surgery—Mr. J. W. Elliott. Demonstrations Morbid Anatomy—Dr. Payne. Mental Diseases—Dr. Wm. Rhys Williams. Geographical Distribution of Diseases in England and Wales—Mr. A. Haviland.

T. B. PEACOCK, M.D., Dean.
R. G. WHITFIELD, Medical Secretary.

For entrance or Prospectuses, and for information relating to Prizes and all other matters, apply to Mr. Whitfield, Medical Secretary, The Manor House, St. Thomas's Hospital, Newington, Surrey, S.E.

Middlesex Hospital. — The Winter

SESSION for 1871-72 will be opened on MONDAY, OCTOBER 2nd, at Three o'clock, with an Introductory Address by Dr. John Murray.

LECTURES FOR WINTER TERM.

Medicine—Dr. Greenhow, F.R.S. Surgery—Mr. De Morgan, F.R.S. Practical Surgery—Mr. Hulke, F.R.S.; Mr. Lawson; Mr. Henry Morris. Diseases of the Eye—Mr. Hulke, F.R.S. Physiology—Mr. Lowne. Anatomy—Dr. R. Liveing, M.A. Cantab. Chemistry—Mr. Heisch. Pathological Anatomy—Dr. Cayley. Anatomical Demonstrations—Dr. Liveing. College Tutor—Dr. Liveing.

Consulting-Physicians—Dr. F. Hawkins, Dr. A. P. Stewart.
Physicians—Dr. Goodfellow, Dr. Thompson, Dr. Greenhow, F.R.S.
Obstetric Physician—Dr. J. Hall Davis.
Assistant-Physicians—Dr. R. Liveing, M.A. Cantab., Dr. Cayley, Dr. John Murray.
Consulting-Surgeon—Mr. Shaw.
Surgeons—Mr. De Morgan, F.R.S., Mr. Nunn, Mr. Hulke, F.R.S.
Assistant-Surgeons—Mr. Lawson, Mr. Henry Morris.
Dental Surgeon—Mr. Tomes, F.R.S.
Assistant Dental Surgeon—Mr. Turner.

The Hospital contains 305 beds; there are special departments for Cancer (36 beds), for Diseases of the Eye, Diseases of Women and Children, and Syphilis. Demonstrations are given during the Summer Session on Diseases of the Skin and the Use of the Laryngoscope. Three Clinical Prizes, including the Governors' Prize of Twenty Guineas, are awarded to those Students who pass the most satisfactory examination at the bedside and in the Post-mortem Room. Class Prizes are also given. There are likewise valuable rewards in the form of Six Resident Clinical Appointments. Students can avail themselves, free of charge, of the assistance of the College Tutor, and thus avoid, when preparing for the examinations of the Licensing Boards, the necessity of any private teaching apart from that of the Medical School.

General Fee for attendance on the Hospital Practice and Lectures required by the Colleges of Physicians and Surgeons and the Society of Apothecaries, £90, which may be paid by instalments.

Fee for Dental Students, £25 guineas for the first year, and 15 guineas for the second.

Some of the members of the staff receive Students to board with them.

Further information may be obtained on application to the Treasurer, Dr. Greenhow; the Dean, Dr. Cayley; or to Mr. Lucas, the Resident Medical Officer, at the Hospital.

The Middlesex Hospital College

DINNER.—The ANNUAL DINNER of the Past and Present Students and Friends of the Middlesex Hospital Medical College will take place at the FREEMASON'S TAVERN on MONDAY, OCTOBER 2nd, at 6.30 p.m.—THOMAS TAYLOR, Esq., F.R.C.S., in the Chair.

Gentlemen intending to be present are requested to send in their names as early as possible to the Dean, Dr. Cayley.

Tickets, 7s. 6d. each (not including wine), to be paid for at the door.

ORIGINAL LECTURES.

LECTURES ON EXPERIMENTAL AND PRACTICAL MEDICINE.

By BENJAMIN W. RICHARDSON, M.D., F.R.S.

ON THE ORGANIC HYDRIDES; WITH AN APPENDIX ON HYDRAMYL AS AN ANÆSTHETIC.

LECTURE II.

GENTLEMEN,—At the close of the last lecture we had before us a solution of iodine in hydride of amyl, and the practical applications of this solution were described at some length. I have still to notice two other simple solutions in which the hydride of amyl is the solvent.

Solution of Oils and Fats in the Hydride.—Common oil mixes in the hydride of amyl freely, and stearine, spermaceti, and other similar fatty substances readily go into solution in it. When a solution thus made is exposed to the air, the volatile hydride evaporates, and leaves the oily or fatty matter behind. By this simple means we are able to leave upon the skin an even layer of substances which effectually exclude the air, and which, if required, may act also as means for diluting more active remedies. There is here in the hydride a solution of spermaceti and olive oil; the spermaceti, cut into fine shavings, is added until the fluid is saturated, then a sixth part of oil is added. This solution is most useful in the treatment of burns. It is gently poured over the burnt surface, and as the evaporation of the hydride proceeds, the cooling that occurs is an immediate source of relief from pain. In time, the part is left covered with a pellicle or false skin of fatty substance, and the air is entirely excluded. If, when the surface of the body is freshly covered with the solution, a little cotton-wool is lightly placed upon it, the rapidity of evaporation is subdued, and the dressing is more effective. I met, myself, with the accident of a severe burn this winter, and treated the injured part precisely as I have stated, and with the best success. The relief from pain was all but instantaneous, and by reapplying the solution over the cotton-wool I kept the pain entirely in abeyance until the balance of the circulation was restored. I left the dressing on the abraded surface, retaining it with a light bandage, and when, a few days afterwards, I removed the cotton-wool and the layer of fatty matter, I found the healing perfected. It is important in using this solution to avoid bringing the flame of a candle or other light near to the part, the vapour that goes off being very inflammable.

The advantage of the hydride over ether and the other volatile solvents of fats is, that by its presence it excites no pain. The oxides and the chlorides themselves create local pain on sensitive surfaces; this fluid does not. In some forms of skin affection where there are symptoms of extreme vascularity, heat, and irritation, the application of a mixture of the hydride and olive oil is very soothing and useful, and I should think it might be of service in some ophthalmic cases; but on this point I have as yet had no experience.

A solution of wax or of spermaceti in the hydride may be turned to much good account in bandaging. The bandage is well saturated with the solution, and is applied while in the moist condition. In a short time the bandage is left quite dry, and the part encircled by it is encased in a firm but flexible structure, which effectually excludes the air.

Ammoniated Hydride.—When a solution of ammonia is placed in contact with amyl hydride, bubbles of gas rise freely from the ammonia, and diffuse into the light hydride. After a time the hydride may be decanted off, when it will be found strongly impregnated with ammonia. The mixture, I think, is merely mechanical; at the same time it is very useful for several purposes. The solution may be diluted with more hydride, until the pungency of the ammonia is reduced, and then the vapour may be inhaled: a method of administering ammonia which in many cases would prove of advantage. In scarlet fever, for which disease ammonia is so excellent a remedy (I had almost said an antidote), we are often embarrassed, in cases where the patients are very young, because we cannot get the sufferers to swallow ammonia in solution. In such cases, then, we could with little difficulty introduce the remedy by the lungs, and so sustain the fluidity of the blood and keep up the action of the heart.

A solution of camphor in this ammoniated solution of the hydride is useful as a preservative of animal substances, and may be applied for the preservation of specimens of natural history. The specimen to be preserved is dipped in the solution, and is allowed to remain in it until it is quite saturated. Then it is removed, and the hydride is permitted to evaporate, when the structure is left charged with the camphor, and is retained in good condition for a long period of time. Half an ounce of camphor in sixteen ounces of the hydride forms a good compound for the purpose named.

Lastly, on this point, the simple ammoniated hydride serves well for keeping pathological preparations during considerable periods of time. A good many years ago I discovered that if a little common ammonia be put into a closed jar with a pathological specimen, the specimen retains its freshness for many weeks. I now use the solution before us in preference to the simple ammonia, and with still better results. Into a pint jar I place, with the specimen to be preserved, half an ounce of the ammoniated solution of the hydride, and after the vapour is well diffused I close the jar closely with a tightly fitting stopper. The jar being placed in a cool place, there is not the least occasion to hurry over an examination, for the specimen will keep (even for microscopical research) three or four days in excellent condition.

AMYL HYDRIDE AS A GENERAL ANÆSTHETIC.

To complete the research instituted as to the physiological action of amyl hydride, I have experimented with it as a general anæsthetic. There are many points in common between this substance and amylene (the anæsthetic introduced by the late Dr. Snow), as the following outline will indicate :—

	Composition.	Fluid density. Water=1000	Boiling-point Cent.	Boiling-point Fahr.	Vapour density. $H_2=1$	Solubility in water.
AMYLENE	$C_5 H_{10}$	·659	35°	95°	35	1 part in 9319.
AMYL HYDRIDE	$C_5 H_{12}$	·625	30°	86°	36	Insoluble.

To test the properties of the hydride, its effects were first tested on pigeons, guinea-pigs, rabbits, and frogs. In all these researches the same plan was adopted. The animal in each case was placed in this glass chamber, which has a capacity of 1000 cubic inches. The arrangements here are such that every condition of a practical kind is at hand. A measured quantity of the vapour is gently diffused through the air of the chamber with hand-bellows: an aneroid barometer within the chamber gives the atmospheric pressure, a thermometer registers the temperature, while, by means of a warming apparatus beneath, the air can be sustained at a fixed temperature at all seasons of the year. The amount of vapour yielded at the temperature that exists during the time at which the experiment is carried out is calculated, and by a simple contrivance the animal is so introduced that no air is let in to interfere with the charge of vapour within the chamber at the moment of the introduction. Thus we have means for obtaining the facts we require to learn, in a steady and systematic manner.

In order to produce a decisive effect with the vapour of amyl hydride, the air in the chamber was charged with different percentages of the vapour at 65° Fahr., and some preliminary experiments were made in which the special symptoms induced were not noticed in detail, the production of decided anæsthesia being only sought. After this the particular phenomena presented were carefully noted.

It may be of service to those who are anxious to study the action of anæsthetic substances with rapidity and precision, to give in this place a sketch of the manner in which the phenomena observed are noted down. The facts to be registered are tabulated in a special book, on a plan devised in consultation with Dr. Sedgwick, to whom I am constantly indebted for the most useful suggestions. The table is arranged under the following heads, the facts of one experiment being added for clearness of illustration :—

Anæsthetic used.	Date of expt.	Conditions of Atmosphere.			Conditions of Subject.			Conditions of Inhalation.					Conditions of Narcotism.										Result.
								Physical.			Duration.		Duration of				Symptoms.						
		Bar.	Therm. (dry bulb).	Therm. (wet bulb).	Animal.	Age.	Temp.	Method.	Cubic space of chamber.	Quantity of agent.	Beginning.	End.	Removal from vapour.	1st stage.	2nd stage.	3rd stage.	4th stage.	Circul.	Resp.	Nerv.	Vomit.	Temp.	
Amyl. hydride	July 8	29·75	65° Fahr.	63	Pigeon	15 mnths	108·8° Fahr.	Diffusion of vapour in chamber	1000 cubic inches	60 per cent. of vapour in air	3 p.m.	3.1 p.m.	3.1 p.m.	0	0	50 secs	0	Not appreciably changed	Respirations fell 23 during anæsthetic sleep.	0	0	108·6° during narcotism	Recovery in one minute.

Remarks.—The anæsthesia was complete for thirty seconds.

The research with hydride of amyl was commenced by narcotising pigeons. Observations on these animals are specially important, for, as they are extremely susceptible to the dangers of anæsthesia, it may be safely inferred that an anæsthetic which proves safe to them will prove safe to the human subject. Moreover, in the pigeon, even more than in man, vomiting and muscular excitability during the action of the narcotic are easily induced; and again, in them, modification of the animal temperature is always strikingly marked. In a word, so close is the analogy of symptoms caused by an anæsthetic in a pigeon and in the human subject, the value of any anæsthetic may be safely determined by the effect produced on the pigeon; and no new anæsthetic agent ought ever to be administered to the human subject until the inferior animal named has been found in several instances to pass through the ordeal with perfect safety.

When, then, in the case of amyl hydride, a pigeon is exposed to an atmosphere containing from thirty-five to forty per cent. of the vapour, the period required for the production of decided symptoms is under a minute, and within two minutes the insensibility is so profound that the animal must be removed into pure air. The insensibility is accompanied with slight muscular movement, and sometimes with a drawing back of the head; but the muscles speedily relax, and the sleep is calm and attended with the deepest insensibility. On removal of the animal from the vapour, and on placing it in pure air, the recovery is very rapid—from one and a half to two minutes being sufficient to insure entire restoration to consciousness. The specific lightness of the vapour, and its insolubility in the blood, account for the briefness of the insensible condition it produces. The temperature of the body of the animal is but slightly modified; there is a reduction of temperature, but it amounts barely to the fourth of a degree on Fahrenheit's scale. In this particular the amyl hydride differs materially from chloroform and ether. Chloroform administered to the third degree of narcotism causes a reduction of from 6·5 to 6 degrees of temperature in pigeons, and ether causes a reduction of 4 degrees. Perhaps the shorter period of administration required to produce the deep insensibility when the hydride is the agent employed may account for the difference observed. On guinea-pigs and rabbits the vapour of amyl hydride acts with the same rapidity as on pigeons. Recovery from the effects is also equally rapid, while the animal temperature in these animals undergoes no appreciable decline. In these animals the muscular excitement is not developed, but in the rabbit there is noticed a rapidity of breathing during recovery which instantly ceases if a little of the vapour be readministered.

In order to see the extreme effects of the amyl hydride, the vapour of it was made to kill;—the animal after being narcotised was, I mean, retained in the vapour until the evidences of life had ceased. Animals of the three classes named above were thus allowed to sleep to death. The process of death is gentle—a continuance, as it seems, of the deep sleep. The circulation and the respiration appear to cease simultaneously; but in one case I could hear the heart in motion a few seconds after the cessation of respiration. Towards the close of the life the temperature falls suddenly from 1° to 1½° Fahr., and the pupils dilate.

After death the heart is found fully charged with blood on both sides and in all the cavities. The arterial colour of the blood on the left side is decidedly darker than is natural, but the coagulation is not interfered with, and the corpuscles show no evidence of change.

The lungs after death are not found congested with blood, as in death from agents which kill simply by causing asphyxia, neither are they found bloodless and blanched, as is so common after death by chloroform and some other volatile chlorides. They are left retaining a natural colour and character. The brain shows no visible sign of injury.

For a long time after death from amyl hydride the muscles of the body retain their irritability, and may be called into vigorous action by electrical excitation. I recollect no agent that destroys life and interferes at the same time so little with the muscular irritability. Let it be understood, however, that this retention of condition for muscular motion under stimulus extends only to the voluntary and the semi-voluntary muscles. In the midst of the life of the other muscles the involuntary heart is dead, and makes effective response to no stimulus, not even to electricity.

The influence of the vapour is slower on frogs than it is on warm-blooded animals; but after a little time frogs become so profoundly narcotised, it is hard to determine they are alive, and if the temperature be lowered they will lie in the vapour for two and three hours, and still, on removal, will recover. Thus, if a strong, healthy frog, narcotised deeply, be placed in a shallow glass basin, with a little of the liquid hydride around the body, the evaporation of the liquid will keep up such a degree of cold that change into fatal death is suspended; and when the liquid has evaporated altogether, if the temperature of the air be kept at from 65° to 70° Fahr., and a little water of the temperature of 70° be occasionally supplied to the animal, it will recover when every indication of life is, to the naked eye, absent. In plain fact, it is difficult to say when death has actually occurred. The muscular irritability may positively be so suspended that it cannot be called forth by stimulus, and yet recovery may be the ultimate result.

After I had conducted these experiments, I ventured to inhale the vapour of amyl hydride myself to the production of unconsciousness. I placed four drachms, by measure, of the fluid in this vulcanite inhaler, pouring the liquid upon a double layer of domette, with which the inhaler is loosely lined. The vapour was to me agreeable to breathe; it caused none of the suffocating sensation experienced from the inhalation of vapour of ether, and none of the irritation produced by the vapour of chloroform; but it induced a sensation of gentle glow or warmth in the chest. After six deep inspirations of the vapour, I felt evidence of change in the cerebral circulation—viz., giddiness and inability to stand firmly, with the swaying movement, or sense of movement, common to the first stage of narcotism. Then, for a few seconds, I lost consciousness, but, the inhaler being removed, I recovered very quickly, and in three minutes was perfectly well. Neither nausea, chilliness, nor headache followed the administration.

On the whole, of the facts thus gleaned by experiment, I infer that the amyl hydride, in addition to its other useful applications, might be employed as a general anæsthetic for the prevention of pain in certain Surgical operations, such as extraction of teeth, where the operative proceedings are short—not exceeding, that is to say, two or three minutes in duration.

There is one other application of amyl hydride, interesting in a physiological as well as practical point of view, to which reference should be made. It becomes of service in studying the question of restoration of life after death by extreme cold. In some animals of cold blood—fishes and frogs—if their bodies be suddenly frozen, it matters not how extreme, how absolutely through the mass of the animal body, the freezing may be, there will still often be recovery on thawing their bodies, if the process of thawing be not too rapidly carried out. We may therefore, taking one of these frozen animals with the intention of restoring it, so utilise the fluid as to moderate the thawing at will. We place the frozen animal in a tall glass jar, and over it we pour some hydride of amyl. Then we warm gently the lower part of the jar; and as the liquid can never be made to exceed the temperature of 86° Fahr., if the evaporation be perfectly free, the animal thaws in it without any danger of what is called reaction, and recovery is the general fact.

I cannot do better in closing this part of the lecture than

demonstrate the fact just named by an experiment. Here are some frozen fish that have by the frost been frozen in an aquarium; they have been retained in the frozen state in this room by a surrounding of ice and salt; and here, also, are some frogs frozen so completely that they are, you will say, of stony hardness. I will pass some of these frozen animals round, but one of them—a frog—I will retain. I take this glass jar, an anatomical-preparation jar, fourteen inches long and two and a half inches in diameter; I place the animal in the jar, pour over it five or six fluid ounces of the light hydride, and apply a gentle warmth so as to raise the fluid to its maximum of 86° Fahr. There is not the least occasion now to do more than wait and watch. In a short time, as the muscles of the animal relax, there will be a sign of renewed respiratory action, in the escape of a bubble of gas from the mouth of the animal. As I am speaking of it the phenomenon occurs, although there is no apparent breathing movement. That escape of gas is of itself quite sufficient. I turn the fluid, together with the animal, into a large glass funnel, having a narrow escape-tube, so that the fluid can run away into a receiver below it, and the animal be left in the air. Soon the animal recommences to breathe, and, as you see, in the freshness of its renewed life, it leaps out of the vessel. It has recovered without sustaining a trace of injury.

(To be continued.)

THE

DISCUSSION ON PURULENT INFECTION

AT THE

PARIS ACADEMY OF MEDICINE.

By Professor VERNEUIL.

GENTLEMEN,—When in 1869 I took part in the discussion on purulent infection, I had two points in view: I wanted to be brief, in order not to fatigue your attention, and clear, so as to convince your minds. My *rôle*, moreover, was a modest one, for I came neither as a reformer nor an innovator; I merely desired to be the propounder of a doctrine slowly prepared during the last fifty years, ten times foreseen, and almost reduced to a formula even in our own country, but which at last owed its quasi-completion to a new series of exact researches especially undertaken on the other side of the Rhine.

Finding it impossible at that time to lay before you all the arguments—all the proofs drawn from history, from clinical observation, from pathological anatomy, and from experimental physiology—I had to limit myself by reviewing, in a few condensed propositions, the principal points which I then considered as nearly demonstrated. I also indicated the gap which was yet left to be filled.

The theory has been variously judged. M. Bouillaud accuses it of not being new. M. Chassaignac considers that it creates an inextricable confusion, and, moreover, that it resembles that of M. Guérin, with the exception of a different name and the addition of an entity. M. Legouest thinks it altogether useless. M. Alphonse Guérin attacked it with a severity which at first pained me; but, considering our old and sincere friendship, I soon became reconciled. MM. Bouley and Gosselin alone gave me their support by admitting, without hesitation, an infection of the blood previous to the invasion of pyæmia.

The opposition offered me by my honourable colleagues has not changed my convictions. I merely perceive that I have missed my aim; that, desirous of being concise, I wound up by being obscure; that my doctrine has not been understood, because I presented it badly; that I did wrong in forming premature aphorisms. In order to defend myself to-day, I shall be obliged to enter into fuller details, which may almost seem prolix.

But I am quite at esse in this debate. The theory which I uphold is not my own. I have nothing to claim, not having written anything on the subject prior to 1869; and, free from all preconceived notions, I must naturally be impartial. I have acquired my opinions by reading a good deal, which at first only led me to doubt; by observing at the bedside, which began to open my eyes; lastly, by carefully taking up the pathological anatomy and physiology of traumatic lesions. Starting from this principle—that the accidents following wounds have their cause in the perturbations of the reparative process—I have looked for these causes in the local disposition of the primary lesion, in the organic state of the subject, and in the composition of the surroundings of the patient.

In following this rule, I scarcely ran any risk of going astray. However, when the theory took its hold, I returned to my books in order to submit it to a dissolving and decisive action of criticism; I definitively adopted it when I found it resist and render a sufficient account of all the facts. In order to make the demonstration more clear, allow me, first of all, to define certain terms, so as to avoid any logomachy, and to remove a misunderstanding which has already taken root.

I shall commence by this latter. The discussion at first started on the curability of purulent infection. Soon afterwards the pathogeny came into play; and, lastly, the different theories proposed up to this day were also to be examined: thus the field gradually grew larger. I have thought best to enlarge the same still more, for the following reason.

The greater number of my colleagues consider purulent infection a special disease, having an origin, an etiology, a regular march, and symptomatology all distinct, and, consequently, a definite place in the nosological list. I am of a different opinion. I regard, with Virchow, Weber, and others, purulent infection as the accidental complication of a general and pre-existing malady—septicæmia. The difference is, therefore, quite marked. MM. Guérin, Legouest, Chassaignac, in order to remain logical, have, from the beginning, described the causes of pyohæmia. As to myself, before studying the complication, I began with an examination of the primary disease which must necessarily serve as its prologue. I therefore, first of all, drew an outline of the history of pyohæmia.

If my views are correct, I was right to proceed in that manner; if I am wrong, I beg my honourable opponents to have the kindness to follow me in my digression, to occupy themselves for a few moments with septicæmia, that I may show in the end that it has no necessary connexion with pyohæmia, no relation of cause to effect. If they do not accede to my demand, we might discuss a long time without understanding one another, and contend without coming together; for we should not be placed upon the same territory. I now pass to the question of words, about which it is so necessary to agree.

Of the Traumatic Poison, or Sepsine.—This virus is produced under different circumstances, but especially on the surface of exposed wounds. It is a particular substance, the principal characters of which I indicated in my last communication, and of which I now merely wish to recall the properties that interest the practical Surgeon. This substance introduced into the circulation, no matter how, alters the blood and developes a general disease called septicæmia.

I had several terms by which to designate this deleterious substance. I chose the one of *traumatic virus*, without, however, paying too much attention to the name. My choice was violently criticised, and to defend the same I have no idea of entering into a physiological discussion on the different viruses; but I must remark that the substance in question possesses the principal attributes of the so-called virulent matters. In fact, it is spontaneously developed from the decomposition of organic matter; it is inoculable in infinitesimal doses, and seems to act like ferments. Lastly, it communicates its toxic properties to the blood of the infected subject; so that this blood, if transferred to another healthy subject, produces septicæmia, as in direct inoculation.

I invoked for this purpose the conclusive experiments of Otto Weber, which date since 1864. I should have said that similar experiments had already been made by Hamont in 1827. I must also add that the recent researches of MM. Coze and Feltz, Raimbert and Davaine leave no doubt on this point. I avow, nevertheless, that the above-mentioned substance differs from virus in one essential character; that is, it does not necessarily infect the subject that generates or supports it. In other words, a wound may furnish the deleterious product in large quantity without altering the blood of the wounded, or without producing a change in his general state. Such a patient would be, so to speak, rather venomous than virulent.

M. Alph. Guérin tells us that the term "virus" had already been thought of by Trousseau, who, with his vivid imagination, thought to have found in the quantity of the poison the explanation of its effects. M. Guérin thinks that I, too, have been seduced in the same way. I do not defend myself for having borrowed an idea from the teachings of one of the most eminent men of our age. I find that Trousseau did well to specify materially the vague idea of *encombrement*, and to admit, in order to explain the epidemicity, the presence of virulent germs in the air. But, in truth, I do not see that it is neces-

sary to have a vivid imagination, or that one must yield to seduction, in order to admit an analogy so striking.

I shall not prolong this discussion any farther: it can be taken up some other day, and furnish material for a desirable revision in the yet imperfect classification of infectant, inoculable, and morbigenous substances. I hope that these explanations will satisfy M. Chauffard, and also M. Bouley, who, though admitting the toxic substance, refuses it the quality of a virus, and assimilates it to ferments; which, by-the-bye, but little advances the question, and might even be an error—for the putrid poison, unlike other ferments, resists heat and alcohol.

After all, I am ready to accept any name, and, among others, the one much used, of *septic poison*, though I think it preferable to give to the active principles of putrid matter the name of *septine* or *sepsine*. The latter term, employed by Bergmann, has the advantage of possessing an excellent radical, sanctioned by usage, and could easily enter into combination with other words. Sepsine is, moreover, a sort of animal poison to be classed among the alkaloids.(a)

Whatever may be the chemical nature of sepsine, this substance, introduced into the economy, produces a general disease to which M. Piorry, in 1847, gave the very appropriate name of *septicæmia*, in order to replace the one of *typhohæmia*, at first adopted.

Septicæmia (also called *septicohæmia*, *septhæmia*, *septicæmic fever*) is therefore synonymous to alteration of the blood by septic matters, to putrid fever, putrid infection, and putrid resorption, so often met with in the old authors. Thus, in fact, if the word was at that time new, the idea had been known long ago, having always found a place in the humoral theories. However, it was only at the beginning of this century that it was experimentally demonstrated. Haller had paved the way, and gave in conclusion of his researches the following very explicit phrase:—"*Nihil potentius humores nostros corrumpit quam ipsa putrilago.*"

In 1815, Orfila announced to have poisoned dogs in a few hours by the introduction of fragments of putrid matter into the cellular tissue. Gaspard, at last, in 1822, founded a dogma which gave great promise for the future. His numerous experiments, intelligently practical, were repeated in France for a period of twenty-five years, then left off, but again taken up with a fresh ardour in Germany since 1846, and continued up to this day.

One would think that the Surgeons who every moment had occasion to observe putrid poisoning would be the first to profit by these experiments, and to understand their importance. But not at all; the Medical pathologists alone knew how to be benefited by them. Whereas, MM. Bouillaud and Piorry, in twenty short phrases, but very clearly expressed, described the principal characters of acute or chronic, sporadic or epidemic Surgical septicæmia, our Surgeons were either completely silent, or else took part at the restoration of the humoral doctrines in quite another direction.

Pierre Bérard, in his celebrated article on pus, makes no allusion to acute putrid infection; and, in his description of chronic putrid infection, he still attributes the essential *rôle* to pus. Sédillot, it is true, in 1847, spoke of septico-pyohæmia, but did not describe simple septicæmia apart, of which his experiments, as though in spite of himself, furnished him such conclusive examples. In vain did obstetricians point to the dangerous effects of the retention of putrid matter in the uterus, and describe the rapid poisoning resulting therefrom. Our Surgeons were working alongside of traumatic septicæmia, but never remarked or described the disease.

This scarcely excusable negligence must, however, be explained. The Surgeons of that day had taken up the history of phlebitis, the outlines of which had been drawn by Hemler and his disciples. On the other hand, convinced as they were that the mixture of the pus with the blood was the true cause of the serious traumatic accidents, they paid all their attention to discovering the mechanism of this mixture; so that, absorbed by this twofold research, they always confounded, in the description of pyohæmia, the part due to putrid infection, to purulent infection, and to phlebitis. It is only in the last few years that the distinction was thought of, and afterwards affirmed in France by MM. Gosselin, Batailhé, Maisonneuve, and others.

En résumé, and, as far as France is concerned, the word septicæmia, created twenty-three years ago, has thus far not been described in any Surgical work of importance, including the collection of theses at the School—the faithful echo of our every-day scientific tendencies.

The German school, during all this time, did not remain inactive. Virchow, in 1846, repeated Gaspard's experiments, and adopted the term created by Piorry. Otto, Weber, and Billroth followed, and introduced the use of the thermometer in the study of traumatic fevers; Bergmann, Panum, and Stich studied carefully the chemical properties of the putrid poison; and thus became established the formal distinction between septicæmia and pyohæmia. As to myself, I believe that the reaction has been rather excessive, and the separation too radical. Consequently, I shall try and re-establish the unity of Surgical fevers, which, in spite of the multiplicity of their forms, the variable degree of their gravity, the different period of their apparition, form, none the less, an uninterrupted chain from the traumatic fever, which lasts four or five days; pyohæmia, which lasts from one to several weeks; and the hectic fever, which may prolong itself for several months.

(*To be continued.*)

(a) Bergmann and Schmiedeberg have succeeded in isolating a sulphate of sepsine in the form of needle-shaped crystals, of which an aqueous solution at the dose of ten milligrammes is said to poison a dog.

ORIGINAL COMMUNICATIONS.

CASE OF SELF-INFLICTED GUNSHOT WOUND OF THE THROAT.—RECOVERY.

By J. FAYRER, M.D., C.S.I.

A Hindoo carpenter, aged about 25 to 28 years, attempted to commit suicide at 5 p.m. on October 19, 1870, by shooting himself in the throat with a pistol, purchased at a native gunmaker's, and carrying a bullet of about twenty to the pound.

It appears that he placed the pistol against or near the right side of his throat, about the upper margin of the wing of the thyroid cartilage, over the thyro-hyoid space. The ball passed through and emerged on the left side, a little below the angle of the lower jaw. He fell, and there must have been considerable effusion of blood. After some hours he says he applied a portion of his dress to the wound, and then, having crossed the river in a boat, walked about four miles to the Hooghly Hospital, where he was admitted on October 19, at about 7 p.m. He absconded on the 24th, and presented himself at the Medical College Hospital on October 26, having, as he said, walked all the way. From his statement it appears that many hours elapsed before he received Medical aid, and even his own rough dressings were not applied until about four hours after the wound was inflicted, during which time a considerable quantity of blood was lost by oozing. Soon after shooting himself he tried to drink, but the water came through the wounds on either side of his throat. These wounds, he says, were about the size of a two-anna piece, the left being rather larger than the right; that immediately after inflicting them, he grasped his throat with his left hand, placing the thumb on the left and the index finger on the right aperture, not with the view of stopping hæmorrhage, but of tearing open the wounds. This idea he appears to have abandoned, and to have tried to staunch the bleeding with a portion of his clothing.

For a few days he had paroxysms of coughing, every attempt to swallow being thus frustrated; fluids were rejected and came through the wounds in the neck. The whole throat swelled, inflamed, and became very painful, and soon the tissues about the pomum Adami sloughed and became fœtid. It appears that gangrene began in the right side, on October 26.

When admitted into the Medical College Hospital he was much reduced, and miserably weak; the neck was swollen and infiltrated. There was a sloughing wound on the right side and anterior surface of the pomum Adami; a second on the left side, near the angle of the lower-jaw, in a similar condition. These were separated by a bridge of integument about a quarter of an inch in width. The sloughs separated soon after admission, laying bare great part of the right ala of the thyroid, and a smaller portion of the left. The os hyoides appear to have already separated; it was probably comminuted by the bullet; the carotid artery could be distinctly felt beating in the left wound. Through the large gaping wounds, now converted into one, an elongated, irregular opening, an inch in length, in the pharynx and œsophagus, was perceptible; through this the vertebral column could be felt with a probe. Efforts to speak produced a faint husky sound. The vocal cords had apparently escaped when the thyroid cartilages were injured; indeed, portions of their upper margins perished. When he

recovered and left the Hospital he could speak, with still a husky but quite audible voice. On admission, any attempt to swallow was followed by rejection of the fluid through the wounds. The tube of the stomach-pump was introduced with some difficulty, and some beef-tea passed through it into the stomach. He seemed anxious to feed himself, and as he appeared to swallow a small portion he was allowed to take milk and beef-tea frequently. It was observed that when all sloughing had ceased, and the clean granulating surfaces allowed the deeper parts to be quite distinctly seen, he managed to swallow more of the fluid, a considerable portion running down the open channel.

By November 2, with a view of expediting the healing of the wound by placing the parts at rest, all feeding by the mouth was discontinued. The head was bandaged forward to facilitate contraction, and nutrient enemata of beef-tea, wine, and milk were trusted to, being given at frequent intervals. He existed entirely on this mode of sustenance until November 7 (the sixth day), when the craving for food became intense. The wound during this rest had contracted considerably. Milk and beef-tea were again carefully introduced into the stomach through the tube, which now passed easily.

The enemata were also resumed until November 9. About this time contraction of the healing œsophagus began to be apparent, and the tube was introduced daily, through which he was fed with milk morning and evening.

On November 11 arrowroot was added to the milk, the enemata of beef-tea and port wine being still continued.

The wound in the neck was all this time granulating healthily, and rapidly closing, and he was beginning to speak in an audible voice. This progress continued, and by the end of the month the wound was reduced to a fistulous opening.

On December 5 he began to feed himself with milk, arrowroot, and beef-tea, and now has only a few drops passed through the wounds. He began to take solid food, and found he could swallow it easily. He rapidly improved in health, became fat and strong, and was able to give us an account of his accident and all that followed it. The cause, he said, was jealousy. A tube was passed occasionally down the œsophagus, to obviate the contraction caused by cicatrisation of the wound, and it appeared to do so satisfactorily.

It was not until May 23 that he was discharged, as we had kept him in the hope that a small fistulous opening communicating with the larynx (the remains of the wound) would close. It had nearly done so when he was discharged. As he was in good health and impatient to return home, we let him go.

The wound, with the exception of the narrow fistulous opening above mentioned, had contracted to a linear though irregular cicatrix, and I believe it would have been impossible for anyone to have imagined that it was due to a perforating gunshot wound; though, of course, when the nature of the wound and its subsequent progress is explained, it is intelligible. We verified the fact of its being a gunshot wound by inquiry from the police, at the Hooghly Hospital, and from the native gunmaker from whom he had purchased the pistol. His own statements, too, though very wild and vague at first, were so clear and consistent afterwards that there was no reason to doubt their truth. It is not difficult to imagine how important Medico-legal questions might arise out of such cases, and it is therefore not uninteresting that such a case as this should be placed on record.

ON RHEUMATISM.

ITS NATURE AND ORIGIN.

By J. JAMES RIDGE, B.A., B.Sc., B.S., M.D. Lond.

(*Continued from page* 344.)

We have seen that there is good reason to reckon among the capabilities of cold the power of exciting inflammatory action in distant organs by reflex influence. For my present purpose it is not essential that the exact mode in which this is done should be explained, though, of course, if it were possible to do so, the proof would be complete. Is the inflammation true "reaction"? If so, does it occur centrally, being a reaction of the central ganglia against the impression of the afferent nerves, and is that reacting impulse transmitted along the efferent trophic nerves so as to excite inflammation; or is it peripheral, a reaction of the tissues in consequence of the cold-induced modification of the efferent nerves? We cannot at present decide. But we know that cold is able to affect distant parts through the medium of the sympathetic, as when the vessels of one hand contract, and its temperature falls, on plunging the other into ice-cold water. It seems probable, then, that the altered nutrition of distant parts, and the occurrence of inflammation in them, is determined by the influence of cold upon their central trophic centres. But this is not its only possible influence, nor does it account for all the symptoms of rheumatism. There is febrile action before there is any arthritis, and sometimes febrility occurs without any local inflammation at all, or only some such insignificant accompaniment as a few herpetic vesicles. Dr. C. F. Oldham(a) has recently endeavoured to prove that the intermittent fever which has been ascribed to the influence of a specific miasm is really due to "chill, or, in other words, the sudden abstraction of heat," and adduces some good arguments in support of this view. It seems not at all unlikely; for in hot climates the difference between the day and night temperatures is often very great. Further, the influence of the excessive heat is such as to relax the tone of the nervous system, to weaken the power of inhibitory nerves which would repel morbific impressions of cold; hence the great frequency of fever. At the same time, the periodicity of the diurnal changes probably accounts to a great extent for the intermittency of the febrile phenomena.

It seems, then, as if in intermittent fever the heat-regulating centre is alone affected, and the reaction of sweating, or rather, I think, the transference of action to secretory nerves, terminates the febrile process for a time. In the recognised catarrhal affections there is more than this. We have implication of other centres — namely, those which control some mucous membrane or other; yet the preliminary general fever is here also usually much relieved by a critical perspiration. The occurrence of the local catarrh may also sometimes be averted by the same process. But the greater the extent or intensity of the local inflammation, so much the less likely is the sweating to prevent it, or a continuance of perspiration to remove either the local action or all general febrile action; because we have then a focus of inflammatory fever, and this secondary fever in turn renders the nerve-fibres of all kinds more sensitive to fresh impressions. When the articular serous membranes are similarly attacked, we have first the same general febrile action, and subsequently a very intense form of secondary fever—very intense, as is usual in most serous inflammations, but often also because of the extensive total surface inflamed, and partly, perhaps, on account of the intensity of the exciting cause. The severity of the process can to some extent be gathered from the large amount of fibrin present in the blood, surpassing in this particular almost all other diseases. Yet the amount of pyrexia as measured by the thermometer, though often great, is not generally so much as we should expect. Is not this because the fever is maintained against and in spite of the abundant sweating which is such a remarkable characteristic of the disease, though not peculiar to it? The inflammatory fever evinces its presence partly as heat, partly as work done in the process of perspiration and the evaporation of water. For it ought not to be forgotten that this sweating is not mere transpiration, since the vessels are often distended to their utmost for a long time before it occurs. Hence we see the danger which arises from checking this cooling process, unless artificial cooling agents supply the deficiency; for, in consequence of its arrest, the heat accumulates, and the phenomena of heat-stroke may result. I do not assert, however, that the fever is all secondary, for there are generally exacerbations, especially at night; and though we speak of the heat-regulating centre in the singular number, it seems capable of different actions or states simultaneously in different parts—for the process of perspiration is not always general, but the alternative febrile action may continue in various nerve-territories at the same time that sweating occurs in others.

At present the molecular changes of nerve and cell by which the chill influences the textures are very obscure; but so, also, are those which are the admitted cause of simple inflammation. That inflammation can be excited by nervous influence is nearly all that we can positively assert; the *modus operandi* remains to be discovered. The ultimate cause of rheumatic inflammation is in no deeper darkness. Some facts with regard to the causes of inflammation are apparently emerging from the gloom, but it would be unwise to be very dogmatic upon such scanty materials, and most certainly would it be improper to deny the possible neurotic origin of rheumatic inflammation if we cannot make it fit in with an imperfect theory.

We have now to gather together the various considerations which will enable us to reply to the question, What, on this supposition, are the conditions required for the production of rheumatism? They are of two kinds.

(a) "What is Malaria."

1. *General Conditions.*—The principal of these is, that there must be a susceptibility of the nervous system to inflammation-exciting influences. In the highest states of health this impressibility is slightest; the tone of the system is good. In consequence of this, influences which affect others are submitted to with impunity. But that this is only a matter of degree is proved by the fact that the more powerful the influence the more numerous will be the sufferers and the greater will be the proportion of severe cases. A slight shower may suffice to establish the morbid process in the very susceptible; a drenching rain will infallibly increase the number of patients —patients, too, suffering from all manner of inflammatory affections—according to the special weakness of each. There may be some in whom no amount of exposure will establish rheumatism; there are few in whom more or less will not set up inflammation of one kind or another.

There is one very important element which greatly affects the liability to morbid action under the influence of cold; that element is *habit*. This scarcely needs illustration; but the effect of daily cold-sponging in checking the susceptibility to catarrh will thoroughly illustrate it. We must observe, however, that the influence on the nervous system thus exerted is only gradually developed, and is so at all only so long as the effect is restrained within certain limits. The application of cold, the first and every time, if we would obtain beneficial results, must be of an intensity such as is within the amount required to establish catarrh, etc. If a cold be set up every time, harm, and not good, will result. And if, after a while, such an exposure is endured as to establish severe morbid action, the stability gradually built up during much time will disappear, and we must begin again from the beginning. It is on this principle that we are obliged to commence with baths less cold and prolonged, and proceed gradually to the longer and the colder. The power we wish to encourage and strengthen is the recoverability of the nervous system, the stability of its equilibrium, by which its resistance to depressing influences will be more firm and decided. It is possible that there are inhibitory trophic, as well as inhibitory motor, nerves. If such is the case, it follows that a greater resistance to inflammation-exciting influences may be conferred by either a more powerful condition of the inhibitory nerves or a diminished impressibility of the excitory nerves. So long as the balance is maintained on the right side, the actual degree of health (in some directions) may be very different, but immunity from inflammation the same.

Here, then, I believe, we find the explanation of the influence of constitution, hereditary or acquired, in predisposing to an attack of rheumatism. As Dr. Fuller remarks,(b) "some are peculiarly sensitive, others under precisely the same circumstances remain perfectly free from it. Others, having long been perfectly free from it, become very subject to it on changing their mode of living, or from some less obvious cause; others get rid of it in the same way. The disease generally makes its appearance in those subject to its invasion, whenever the system is lowered or deranged. It is frequently an attendant upon disordered conditions of the uterine system. . . . . M. Chomel has been struck with the frequency of its occurrence after excessive lactation, after much venery, and during tedious recoveries from fevers." These are circumstances which Dr. Fuller thinks strongly show that the disease is due to the production of the acid poison, through the derangement of normal digestion and assimilation associated therewith. The argument, however, that rheumatism must have a humoral origin, because it is constitutionally disposed to and inherited, and because it is modified and developed by external conditions of climate, food, and habit, only holds good if it were also true that diseases of the nervous system are never influenced or produced by the very same circumstances. But this is notoriously incorrect, and therefore Dr. Fuller's argument is quite inadequate to prove the conclusion he desires.

This power the system has of adapting itself to external conditions is just that power of habit which I before mentioned. A balance, as it were, is struck among the nerves regulating nutrition at different degrees of intensity, by which the normal processes of nutrition are carried on healthily under exposure to the average climatic influences. The maximum amount of morbific influence which it is possible for anyone to suffer without harm is thus, *cæteris paribus*, determined by the average of his ordinary exposure, and it therefore varies with each individual, and in the same individual at different periods; but under the same external conditions there will of course still be differences among men in this respect—differences to be accounted for by the hereditary or acquired constitution, the age, the previous state of health, the diet, etc.

Notwithstanding these particular differences, however, an average resistance-power to climatic influences will exist in every body of men exposed to the same circumstances, and, if these are altered, we might expect the average of rheumatic and other inflammatory affections due to cold to vary also. If this body of men continue exposed to an average of deleterious influences higher than before, then the same law will operate, habit will again be formed; they will adapt themselves to the new circumstances. On this principle it is that we can account for Sir J. Pringle's observation, quoted by Dr. Fuller, that rheumatism is more prevalent at the commencement of a campaign, and shortly after return to garrison, than at any other period of a soldier's life. At each of these periods a new balance has to be struck among the trophic nerves, the more luxurious habits and self-indulgences of garrison life after the hardships of a campaign unsettling the system as much as the previous increased exposure.

2. *Particular Conditions.*—These determine the kind of disease—that is, what tissues the inflammation shall attack, and the character it shall assume. They include—(*a*) Hereditary or acquired predisposition to inflammation of fibrous and serous tissues. This notoriously varies to a very great extent. The nature of hereditary influence I need not discuss. That weak points, organs and tissues more susceptible than others to morbid action of different kinds, do exist in most men, if not in all, and that such coigns of vantage are hereditary, is unquestionable. Further, the occurrence, from whatever cause, of rheumatic inflammation renders the system more liable to a second attack, and the joint or joints previously affected more obnoxious to the morbid process. The wherefore of these conditions we cannot yet explain. (*b*) Exposure to a sufficient exciting cause. The frequency of exposure to chill, and its severity, will of course increase the risk. But though cold is the most common cause of rheumatism, it is not essential to its production. It follows from my theory that anything which can disturb the balance of the nerve-forces in the direction of inflammation is able, in those disposed to inflammation of fibrous tissues, to set up rheumatism. Such has occurred in many of those cases where mental excitement, grief, anxiety, fright, or over-fatigue have appeared to excite it; so, also, it is possible to conceive of morbid blood thus affecting the nerve-ganglia controlling the inflammatory process—an explanation to be received when no better is forthcoming. In some cases, however, it is not improbable that such causes as these have only depressed inhibitory nerves, or so affected the nervous system that other (slighter than usually necessary) causes have been able to excite the disease. As examples, also, of such central causes are those cases of arthritis from injury to the spine quoted by Dr. Day, and before noticed. While, therefore, we need not be surprised that anything capable of exciting inflammation by its direct action on the nervous system may excite rheumatism in the predisposed, we must attribute a reflex action to the most common of all causes—the influence of cold.

I have said that any peculiarity in the inflammation can be easily accounted for. The principal peculiarities are the fugitiveness of the inflammation, and the rarity with which suppuration occurs. Bearing in mind that cases of cold-excited arthritis which do proceed to suppuration are quite as truly rheumatic as those which do not, although usually excluded from the category, any real disinclination to suppurate is probably due (1) to the nature of the tissues affected; (2) to the nervous origin of the disease; (3) to the constitutional predisposition.

The condition of the blood has recently been shown to have a marked influence upon the tendency to suppuration, especially in commencing the process. We can therefore easily understand how a general tendency to suppuration will be to a great extent dependent upon the condition of this fluid and the original construction of the white corpuscles, so that, if these are normally formed and thoroughly endowed with their proper physiological disposition (which, perhaps, is to develope into red globules), the tendency for them to degenerate into pus-corpuscles will be at its minimum; and to accomplish this result a more powerful stimulus will be necessary. Of course the tissues themselves, if sufficiently irritated, also suppurate; but I speak rather of a general pyopoietic tendency, which influences greatly the degree of local irritation required to produce pus. If any joint has been exposed to a traumatic influence or a previous attack we know that the inflammation is more readily set up there. But the tissues, as a rule, are not locally irritated at first, and the rest enforced by the pain

(b) "What is Malaria."

preserves them from it afterwards. Since, also, the exciting cold acts solely by its influence on the nervous system without any blood-infection, and if sufficiently powerful is able to establish the inflammatory action thus without any great preparatory alteration of vital processes, it follows that the attacks generally occur when there is no special proneness of the blood to favour suppuration. There is sometimes, however; and when so altered, by scarlatina, pyæmia, the puerperal state, etc., then it is that suppuration most often occurs, tending to prove that there was some necessary factor absent in the former case. The intensity of the nerve-influence, however, may be great enough to induce tissue-suppuration, although a concomitant influence of the tissues or blood is probably present in most cases in which it occurs. To put these circumstances concisely, I would suggest that the general termination of the arthritis in rheumatism is to be accounted for by the inflammation being excited by the influence of the nerves alone in tissues little prone to suppurate, and in individuals whose blood has no general pyopoietic tendency.

In connexion with the constitutional influence there is one point which should be mentioned, and that is that every now and then we meet with a run of cases of some special type, which indicate the existence of a wave of epidemic influence upon the population at large, evincing its presence when individuals are attacked by disease, and modifying in various ways the symptoms of rheumatism. At one time the cases of acute and severe rheumatic inflammation are very common; at another they are few and far between, while subacute cases abound; while at yet another time the general symptoms are low and asthenic, and typhoid symptoms are more frequent; or there may be such a modification of the blood that purpura complicates nearly every case. A tendency to the supervention of peri- and endo-carditis seems also sometimes to be prevalent. These are evidently accidents of the disease, although the nature of the causes of such epidemic constitutional states is seldom clearly defined.

If the simple nature of rheumatic inflammation is established or rendered probable by the above considerations, I might consistently say in a word that the rational treatment to be adopted must be that of simple catarrhal fever and local inflammation. While this is perfectly true, the appreciation of its real nature will enable us to use our weapons more intelligently and with greater precision, and will enable us to understand more clearly the methods by which they can affect the disease, and the value of their influence.

(To be continued.)

ON THE COCA LEAF, AND ITS USES IN DIET AND MEDICINE.

By J. H. SCRIVENER, M.D., Lima.

THE two most valuable vegetable productions of Bolivia are the Cascarilla (*i.e.*, the Cinchona, or Peruvian Bark), and the Coca; the former is well known to fame, the latter comes next in importance for its services to mankind.

The Coca (*Erythroxylon Coca*) is a shrub which grows to about six feet in height. Its leaves are about one inch in length, and of a light-green colour; its flowers are white, and produce a red berry. In its cultivation the soil is well prepared previous to the sowing of the seeds, and then divided into different compartments. After the sprout has come out, which takes place in a few weeks, and when they have grown to two or three feet in height, they are transplanted to other grounds, within two or three feet of each other, which are called *cocales*. These plantations are formed in the most shady places, for the purpose of protecting them from the heat of the sun, which is very powerful in the deep valleys of these regions. Indian corn is also sown between them, the broad shady leaf of which serves as an additional protection to them.

The Coca plant grows luxuriantly in all the valleys, and arrives at perfection in about two years; the time is known by the height of its branches and the brittleness of its leaves, which break or fall on touching them. The Indians are careful in gathering the leaves, as they are delicate and easily broken from their stems. As soon as they are gathered they are laid upon the ground for the purpose of being dried by the sun, which, as this process gradually takes place, changes the colour of the leaf from a light to a dark green. The leaves, when perfectly dried, are wrapped up in palm-leaves and covered with flannel. Packages are then made of them of fifty pounds each, which are called *cestos;* others of 100 pounds are called *tambors*. They are then conveyed on the backs of llamas to the Custom-house of La Paz, and sold to the miners for the Indians of their establishments. The duties on the Coca form an important revenue to the nation, amounting to 400,000 dollars a year—£80,000.

It is not known when the Coca was first discovered, but it must have been at an early period, probably under the Incas. Its production was very great during the Spanish sway, for it then became an article of importance to the Indians. Previous to that period, according to Prescott, it was reserved for the Incas and nobles of the country.

There are many estate-holders in the city of La Paz who have large plantations of Coca, from which they derive a large revenue; they are not exposed, like other plantations, to local causes or atmospheric changes which might injure or destroy them.

According to an article published in *La Tribuna*, August 5, 1863, "the Indians of Peru refer to mystic traditions for the origin of this plant. They say that Manco Capac, the divine Son of the Sun, descended in the primitive epoch from the rocks of the Lake Titicaca, and bestowed the light of his father upon the poor inhabitants of the country; that he gave them a knowledge of the gods, taught them the useful arts and agriculture, and presented them with the Coca, that divine plant which satisfies the hungry, gives strength to the weak, and makes them forget their misfortunes."

In the splendid and sumptuous city of Cuzco (the capital of the Incas) the Coca-leaf was used as an article of luxury; the Incas and the nobles masticated it in their palaces and temples, which were richly adorned with gold and silver.

There are different opinions of the properties of the Coca, for, according to some writers, it contains a small quantity of some narcotic, which intoxicates those who masticate it; whilst others affirm, as cited by Prescott, that its effects are similar and equally injurious to the mastication of tobacco.

The properties of the Coca are variable, according to the quantity employed. It is a stimulant, a tonic, slightly narcotic, and very nourishing. It possesses an agreeable aroma, and a flavour similar to that of tea, and, like that plant, is frequently employed in the form of an infusion in slight disorders of the stomach.

There are certain signs in the physiognomy of a Coca chewer which manifest the influence of the plant; they are characterised by a paleness of the lips, a slight yellow tinge about the angles of the mouth, and the teeth are stained with a bright yellow. With its use the countenance, which usually presents an afflicted aspect, becomes more animated; the eyes assume a brilliant appearance; the pulse is strong and frequent, and there is a desire for physical exertion. These are, undoubtedly, signs of the stimulating and tonic effects of this plant.

Abuse of the Coca occasions, according to some authors, signs of premature old age, which are marked by an unsteady step, a yellow skin, a want of brilliancy in the eye, and a general indifference or apathy. I have seen hundreds of Indians, during my residence in Bolivia, who have chewed the Coca-leaf from youth upwards, many of whom had attained their 80th year, and who showed no signs of having been affected by the plant. I have only seen the signs above mentioned in very advanced age, for the Indians are proverbial for longevity.

There can be no doubt that the Coca is both salutary and nutritious, and, we may add, the best gift that the Creator could have bestowed on the unfortunate Indians. It is of inestimable value to them, for without it they would do nothing with spirit or goodwill. They are always supplied with a quantity of its leaves, which nourish and strengthen them; and it is their great resource in their trials and afflictions. They always carry a bag of the leaves hanging from their neck, and a small flask by their side filled with ashes or lime. The manner of employing them is very singular, and is as follows:—The Indian takes a handful of Coca-leaves out of the bag, and withdraws the filaments from them. He then puts them into his mouth, and chews them into the form of a ball. He then wets a piece of thin stick, which he introduces into the flask; and on withdrawing it, it is covered with the lime or ashes. He then pierces the ball in his mouth with it till it has acquired a strong and pungent taste, which is naturally followed by a copious salivation: part of this salivation is ejected from the mouth, and part of it is swallowed. The ball is retained in the mouth for about an hour, and is then renewed with another handful of leaves.

The proprietors of the mining establishments in Potosi and other districts are abundantly supplied with Coca, which they daily distribute to the Indian workmen. The quantity which they give to each Indian is an ounce and a half, with the

exception of holy days, when it is increased to three ounces. Groups of Indians may be seen on those days, and at the hours of rest from their labours in the mines, chewing the Coca with as much pleasure and delight as a connoisseur in tobacco smokes a rich havana.

The effects of Coca on the Indian are very visible; they are strongly marked in his countenance by a greater brilliancy in his eye, more agility in his step, and he is animated and contented; he appears as if he had partaken of a rich repast. There can exist no doubt, in view of these beneficial effects, of the erroneous opinions of authors who have written on the noxious effects of this plant; and to prove still further their little knowledge of its properties, I shall bring forward the effect it produces upon travellers.

The Indians of Bolivia are very remarkable for the rapidity of their journeys on foot, and are probably without rivals as postillions. There are some who are called *andadores* (swift travellers), who are employed by the Government on critical occasions to convey dispatches to distant parts, for the swiftness of their journeys and their well-known fidelity. They travel from sixty to seventy miles a day—from the rising to the setting of the sun—and for several successive days. Their road generally lies over passes in the mountains only known to them, and they are without any other food than a few Coca-leaves, or a small quantity of powdered Indian corn. But, what is still more surprising, and will appear almost incredible, is, that they travel these long distances without being weary, or at least without signs of fatigue.

I heard from good authority that, during the war for the independence of the country, a battalion of infantry, composed principally of Indians, made forced marches of sixty miles a day, notwithstanding the weight of their knapsacks and their arms, and without any other food than the Coca, and occasionally a small quantity of Indian corn. This was found sufficient to sustain their strength, to keep them lively and contented, and ready and disposed to continue their journeys, which invariably terminated without signs of fatigue.

There was at that period a battalion of infantry, under the command of General Valdes, which travelled 108 miles on foot in three days, and without any other food than the Coca-leaves.

The Indians, according to Tschudi, looked upon the Coca plant as sacred and mysterious. It formed a principal part in their religious ceremonies, and they burnt it upon their altars as a pious offering to their deity. The priests chewed it at their prayers to conciliate the benevolence of their gods, and blessed it to obtain every worldly advantage. The Indians, according to the same author, filled the mouths of the dead with Coca-leaves for the purpose of securing their salvation; and some have affirmed that this custom still exists among them, and that when an Indian meets with a mummy he kneels down with devotion, and places around it a quantity of Coca-leaves.

There are few plants that can be compared to the Coca for its varied and inestimable qualities. Besides its admirable effects in nourishing the system, it is employed with advantage, in a Medical point of view, as an excellent tonic in weakness of the stomach, and other affections of that organ. It is to be hoped that the day is not distant when that plant will become generally known to the Medical Faculty, and placed beside those in our pharmacopœias as one of the most important of the kind.

I cannot admit the opinion of the Jesuit Julian, who states that the Coca would lose the strength of its properties by exporting it to Europe, and that Medical men would not employ it as a tonic. There can be no difficulty, in my opinion, in preserving the properties of the plant, as the leaves might be packed up in cases lined with tin, as the tea is from China, which would prevent it from becoming impaired in the voyage.

It would have been interesting to have known when this plant was discovered, but this was a task we could not accomplish, and will probably remain a mystery. The information we have acquired of it is from the period of the Conquest, when the Coca was employed in the manner we have described; and, from the knowledge we possess of its valuable qualities, we firmly believe that when they become known in Europe it will be employed with advantage for complaints of the stomach, and as a solace and powerful auxiliary unequalled in the history of plants to the poor and afflicted when suffering from hunger and grief.

The Coca was introduced into Salta, a province in the Argentine Republic, about a century ago, and is frequently employed by its inhabitants. The peasants in the valleys of San Carlos, Molinos, and Rinconado chew it with the same pleasure and advantage as the Indians of Bolivia. It is not unknown in Buenos Ayres, the capital of that State, where it is gradually coming into use, and can be obtained at several chemists' shops. The natives employ it, in the form of an infusion, in disorders of the stomach.

It is to be regretted that we have no further details of the Coca, which is attributed to the conquerors of Peru, who were indifferent to everything save gold and silver, and who destroyed everything that tended to a knowledge of the country. It is well known that the Incas transmitted to their descendants an account of their laws, arts, and sciences—in fact, everything relating to the welfare of the country. These accounts were made of cords of different colours, called *quipos*, which, according to Prince San Severo, served them as an alphabet. It would have been an easy task to the Indians, who had acquired a knowledge of the Spanish language, and who served as interpreters to their conquerors, to have deciphered the *quipos*; but the indifference of the latter to all that was scientific had no bounds; they were satisfied with amassing gold, silver, and precious stones, and cared nothing about the history and customs of the country.

REPORTS OF HOSPITAL PRACTICE

IN

MEDICINE AND SURGERY.

KING'S COLLEGE HOSPITAL.

NECROSIS FOLLOWING INJURY — REMOVAL OF DEAD BONE.

(Under the care of Mr. WOOD.)

[Reported by Mr. E. B. ROCHE, House-Surgeon.]

S. W., aged 8 years, was admitted on June 7. A fortnight before he had fallen from a height of four or five feet on to a heap of rough stones, and hurt his right leg, so that it soon became very painful, and he had to keep his bed. The pain continued, and the leg gradually increased in circumference up to the time of his admission, when there was considerable swelling over nearly the whole length of the tibia, which pitted on pressure, and gave an indistinct feeling of fluctuation. There was, too, intense pain caused by the gentlest manipulation, and considerable febrile disturbance, with a temperature of 105°.

Mr. Wood made a free incision in the most prominent part of the swelling, carrying his knife down to the bone, and let out a quantity of very offensive pus.

On June 18 another incision was made, about four inches above the first, and from this also much pus escaped. The soft parts around the knee-joint now commenced to swell, the swelling extending some distance up the thigh, and any attempt at movement caused excessive pain. A drainage-tube was passed through the openings already made.

On July 5, Mr. Wood made two incisions—one on each side—about four inches above the joint, and a drainage-tube was passed. About ten ounces of very fetid pus were thus evacuated.

On the 7th the patient was seized with a slight rigor; there was, however, no recurrence of shivering, and from this time the child rapidly improved, his temperature fell, and his appetite and strength increased.

Two other small incisions had to be made, which soon healed, and the upper opening in the leg closed; those in the thigh continued discharging for some time, but no dead bone could be felt through them. The surface of the tibia at the lower opening on the leg is seen to be necrosed.

On September 12 a thin plate of the tibia was removed by the dressing forceps through the opening in the leg, which has now healed over. The leg is quite straight, and the knee at the present time stiff, and the limb still kept upon a long back-splint.

(Under the care of Sir WM. FERGUSSON.)

O. K., aged 6 years, was admitted for disease of his right humerus on January 19, 1871. About six months previously his arm was jammed by a door being closed upon it suddenly, causing at the time much bruising of the soft parts, which soon became red and swollen. Abscesses soon formed and discharged themselves, giving rise to sinuses, two of which were discharging at the time of admission. One of these was situated in front of the arm, about an inch and a half below the coracoid process, and the other about the same distance above the external condyle; through both these sinuses dead bone

could be distinctly felt. The general health of the child was very bad. Sixteen days after admission, the condition of the boy being much improved, Sir Wm. Fergusson opened up the sinuses, and attempted to remove the sequestrum, first through one, then through the other. It resisted these efforts for some time, but at last yielded, when Sir William with a powerful pair of forceps seized the bone through the upper opening, and pulled well in the axis of the arm. By these means the whole shaft of the humerus was dislodged in a state of necrosis. The head and lower extremity of the bone remained intact, but the arm itself bent easily, as the new bone was too soft and yielding to allow it to preserve the straight position. It was placed upon a splint, and the wounds dressed with water dressing, and gradually closed.

The result of this case is an arm of the same length and firmness as the other; but the mobility at the elbow-joint is considerably diminished.

(Under the care of Sir WM. FERGUSSON.)

Jane P., aged 20; admitted for necrosis of the lower jaw. She states that about twelve months ago, while loading a cart at a market-garden, she slipped and fell, striking the right side of her face, and cutting her cheek. A few days afterwards the jaw became very painful, and the cheek swelled considerably. The pain and swelling continued, and after nine months two openings formed, leaving sinuses, one of which is below and anterior to the angle of the inferior maxilla on the right side, and the other an inch and a half anterior to this. Through each dead bone could be felt. Sir William Fergusson enlarged the posterior sinus, and through it extracted a piece of necrosed bone about one inch and a half long, consisting of a portion of the angle and the bone anterior to it. The third molar tooth was dislodged with it. Oiled lint was applied to the wound, and the patient fed on spoon diet for a few days. The opening rapidly closed, and in ten days after the operation solid food was easily masticated.

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Medical Times and Gazette.

SATURDAY, SEPTEMBER 30, 1871.

THE INDIAN MEDICAL SERVICE.

THE members of the Indian Medical Service have good reason to complain of the state of uncertainty in which they have latterly been placed. The two facts of no admissions to the junior ranks having taken place during the last three years, and of the steadily increasing disproportion between the numbers of Surgeons and Assistant-Surgeons in the three Presidencies, indicate an abnormal condition of affairs in the covenanted branch of the Service; while the increase of uncovenanted Medical officers—many of whom are of native or mixed extraction—and their nomination in many instances to appointments formerly held by commissioned Surgeons or Assistant-Surgeons, justifies the suspicion that there is being brought about a gradual and insidious change, the ultimate result of which will be the extinction of the Indian Medical establishmen It appears, in fact, that the Indian Government is now effecting, in an underhand manner, changes in the constitution of the Medical Service of that country similar to those proposed some years ago, but which it was found impossible to carry out without a special Act of Parliament, altering entirely the terms of admission to the Service. By conferring the "local rank" of Surgeon and Assistant-Surgeon on senior members of the subordinate Medical Department who may have attained the necessary Professional standard, a mode was hit upon of getting round the barriers raised by unrepealed Acts of Parliament, and of at the same time gradually introducing into the Indian Medical Service a new element, the disturbing influence of which was at first barely perceptible; but now, from the increasing numbers of this class of Medical officers, and their selection at considerably lower salaries for posts formerly held by Medical officers of the superior grade, the tendency of the change is every day becoming more obvious.

In order duly to appreciate the nature of this change, we must not limit ourselves to the merely Professional aspect of the question. From the earliest days of our presence in India, down to the present time, Medical science has been the one and sole branch of European learning which has thoroughly recommended itself to the native mind. Our system of law has been accepted and submitted to, but is still, in many instances, felt to be harshly dissonant from, and inconsistent with, native prejudices and feelings. Our theology in all its varied and contradictory phases has never yet gained such a hold upon the convictions and opinions of Brahmin or Mussulman as would enable it to continue its existence beyond a single generation, supposing the English population to be withdrawn from India. Not much more can be said for general literature. It must, however, be admitted that the engineering skill of the English occupiers has, in roads, canals, and railways, left indelible traces of the presence of a race possessing superior knowledge and energy. Politically, therefore, any change likely to result in a deterioration of the class of Medical officers in India possesses an importance over and above that attaching to it as a matter of simply Professional interest.

We are quite ready to admit that many, or even all, of the Medical officers virtually admitted into the Indian Service by the back-stairs of local rank may be men of ability and skill—some, indeed, we believe possess very high attainments as Physicians and operative Surgeons—but they have been appointed by selection from a population infinitesimally small compared with that composed of students who have gone through a systematic Professional training in the United Kingdom, and from among whom candidates for admission to the Service must further submit to a strictly competitive examination. Although some men of exceptional skill and acquirements may no doubt have passed into the "local ranks" of the Indian Medical Service, it must be admitted that competition among the members of a larger class, who have enjoyed superior Professional opportunities, is more likely to supply the sort of men required, than is selection from the subordinate Medical Department, or the organisation of an uncovenanted Medical service, the admission to which is by nomination instead of by competition. These, however, appear to be the means most in favour at present with the Indian Government of keeping up its stock of Medical officers. The discontent and suspicions of the members of the Indian Medical Service have been thoroughly aroused, and, we must say, not without cause. Rumour succeeds rumour as to impending changes. The latest is, that the Indian Medical establishment is to be divided into two branches—civil and military; that the latter will be placed under the superintendence of the Inspectors-General of Hospitals of the British Medical Service in India, and thereby virtually transferred to the Medical Department of the home army, and liable to removal from

India in their regular turn; while the former will be under the supervision of Inspectors-General of the Indian Service, and will remain in India till the completion of their terms of service. The liberty of choice between the two Services is to be given to the officers already in the Indian Medical Service. The result would, of course, be the transfer of the Medical charge of the native portion of the Indian army to the British Medical Service, and the abolition of all the military duties now performed by members of the Indian Medical Service.

Such a scheme would involve many difficulties and instances of individual hardship to members of both Medical Services, unless it be complemented by an extension of the system of retirement by which Medical officers might obtain credit for the longer periods of service entitling them to the higher rates of pension. There can be no doubt that the Indian Government could have the Medical duties of the native army performed much more cheaply by the Army Medical Department than by its own, as it would thereby free itself from the higher rates of retirement which it has hitherto paid to its Medical officers. The Medical officers who might elect for the Indian Civil Medical Service would, of course, continue on the old terms of pay and retirement; and if the standard of admission to the Service be kept up to the high mark at present attainable by competitive examination, and if the terms offered by the Government be sufficiently good to induce highly educated young men from this country to compete, the Civil Medical Service of India would probably afford one of the most attractive and remunerative fields for Professional labour. On the other hand, if the standard of admission be virtually lowered by the selection of men unwilling or unfit to encounter the test of competitive examination, direct injury will be inflicted not only upon the Profession, but upon the political position of the whole British population of India.

THE METROPOLIS WATER ACT, 1871.

A few weeks ago, on the eve of its becoming law, we expressed no very favourable opinion of the above measure; now that the Bill has passed into an Act we shall be rejoiced to find that we were mistaken in our surmises, yet we have our misgivings. We repeat that the Act is a Water Companies' measure, and our assertion is confirmed by the statement of the Companies' organ (the *Journal of Gas Lighting, Water Supply, and Sanitary Improvement*), which states that "the Act just passed is the result of earnest conferences between the Companies . . . . and the Government," and adds that, *if cautiously acted upon*, it (the Act) is calculated to effect much good. The article we have just quoted insists upon time being given for the gradual introduction of the constant system of supply, together with cautious preparation for this desirable boon. It is a pity that any rupture should have occurred between the Water Companies and the Metropolitan Board of Works—that the former should have imbibed the idea that Bill No. 1 was conceived in a spirit of gross antagonism to the Companies, and that the strongest opposition of these was consequently excited. Fears are entertained lest the Metropolitan Board, in a fit of petulance at the rejection of their own Bill, should prefer to leave the Act as much a dead letter as the Act of 1852. The securing of a constant supply in the metropolis and adjacent districts practically rests with the Metropolitan Board and the Water Companies; for, putting aside the outlying districts, a constant supply for the metropolis is to be obtained in one of three ways:—Either a Company may now (as no doubt the Companies will) take the initiative, and propose to furnish such supply in any district; secondly, if in the City, the Corporation may demand it, or, outside, the Metropolitan Board of Works; or, lastly, the Board of Trade (now the Local Government Board) may, under certain conditions, insist on a constant supply in any district. These conditions are, that certain regulations as to prevention of waste, etc., be complied with by the consumers. These regulations are to be made by the Companies, and, if not complied with by four-fifths of the householders in a district, the obligation on the Companies to furnish a constant supply ceases. If neither the Metropolitan Board nor the Companies elect to enforce compliance with the regulations, the Act becomes a dead letter. We regret that the enforcement of the regulations has not been made compulsory on someone; and earnestly do we counsel the Companies to put the statute in force, give a constant supply, and thus forestall that future legislation which must necessarily speedily ensue should the Act prove nugatory.

No doubt the evils attending the present system of intermittent supply have been much exaggerated; for we confidently assert that in the larger class of houses contamination in cisterns seldom occurs, whilst in the poorer class of houses, in consequence of the smallness of the cisterns and butts, a daily almost complete removal of the supply takes place. Nevertheless, a constant supply may, and no doubt will, prove a great boon to the population; for not only, with reasonable care, will all risk of poisoning by impure water be avoided, but a cool and refreshing beverage will be so constantly at hand, that habits of temperance may be expected to be introduced, such as can scarcely be looked for when drinking-water is too often a nauseous lukewarm beverage.

THE WEEK.

TOPICS OF THE DAY.

We regret to say that the health of her Majesty, although partially recovered, is still not re-established. The Queen has not been able to attend divine service, as has been her wont, or to take her usual amount of air and exercise. We fear there is too much reason for apprehending with Mr. Disraeli that a long time must elapse before her Majesty will be able to resume the performance of public and active duties.

We are glad to see that the last speech of the Prime Minister, at Aberdeen, affords evidence that the quiet time of the recess has given opportunity for recollection that there are subjects of as real importance to the well-being and happiness of the people as Ballot Bills and Extension of the Suffrage. It is true that the general tone of the latter part of his address at Aberdeen seemed to indicate that Parliament had enough to do without legislating on such matters; but he acknowledges that "legislation upon health, legislation upon atmosphere, legislation upon water, legislation upon drainage, legislation upon labour in all its relations," are subjects which Parliament must attend to, although to do it he thinks the machinery of Parliament must be improved, in order to give greater facility and expedition to the transaction of non-political business. But whilst Mr. Gladstone and his colleagues are improving the machinery of Parliament, another session may slip away, and cholera may be in our midst.

It is worthy of remark, considering the popularity of the cry for a National Parliament and for Home Rule in Ireland, that if we descend from Imperial to Medical politics, we find our Irish friends by no means so enamoured with isolation. The proposal of the Government last year to create a separate Examining Board for each division of the United Kingdom was, we believe, very unpalatable to the Irish Medical authorities. We know that it was opposed by some of the most distinguished of the Medical Profession in Ireland, on the ground that there might be an inequality in the eyes of the public between the English and Irish qualifications; and this, we fancy, was the view taken in some quarters where the idea of Irish political independence is by no means unwelcome.

The vacancy for the Assistant-Surgeoncy to the Middlesex Hospital is still unfilled. There are several candidates for the post, but we hear there is to be no canvassing.

The deaths from diarrhœa in London last week declined to 205, of which 186 were of infants under 2 years of age. The deaths in the previous week were 268. Only 2 deaths were referred to cholera and choleraic diarrhœa; in the eight previous weeks these deaths had averaged 22. The fatal cases of small-pox in London last week rose to 89; in the previous week the number was 57. The fatality showed an increase in St. Pancras district, Bethnal-green, Walworth, Battersea, and Camberwell.

The inquiry into the management of the Temporary Small-pox Hospital at Hampstead is undoubtedly at present the chief matter of Medical interest amongst us. The inquiry promises to be a long one, and we do not intend to express any opinion on the main points at issue between the complainants and the defence until we have the evidence of both sides before us; but enough, we think, has transpired to verify the remarks we recently made. The Hospital was got up in a hurry for the indiscriminate reception of paupers and of people of a higher station who could not be nursed at home. The East Grinstead Sisterhood, which generously and heroically undertook the nursing, was quite inadequate to the task. The Sisters had to rely upon hired nurses, who were procured on the spur of the moment, and even these were largely supplemented by the aid of convalescents, who, whatever might have been their previous station or condition, were set to work in a rate-supported Hospital. The Hospital seems to have been conducted on the principle of a workhouse Hospital; and as thirty patients were received per diem, many of them in a most filthy condition, and the nursing staff was most inadequate, there can be no wonder that scandals got abroad. With regard to the questions at issue between the Medical Superintendent and his assistants, as we have said, we must reserve all comment.

THE HEALTH OF THE TROOPS DURING THE MANŒUVRE CAMPAIGN.

So far as concerns the health of the troops engaged during the fortnight's campaign, the experiment has met with an almost unanticipated success. The general health of the troops is reported to have been highly satisfactory. The number of admissions into the permanent Hospitals at Aldershot from all the camps was actually below the average, and the men who remained at Aldershot furnished a greater proportion of cases to strength than did the men on active service. This, of course, is to be accounted for by the fact of all the weakly men and recruits likely to break down under hard work or exposure having been left behind; but it nevertheless affords a satisfactory proof that the health and condition of the men on field service had been maintained. Many Medical officers, indeed, expressed to us the opinion that their men had actually derived considerable benefit from the complete change of scene and employment. And judging ourselves from the appearance of many of the regiments marching into camp after the heavy work of Thursday, the 21st inst., the last day of the operations, we were struck by the generally healthy appearance of the men, dust-begrimed and travel-stained as they were. With the exception of one case of small-pox there was no serious form of fever. Rheumatism, bronchial attacks, slight bowel derangements, and accidents were the chief causes of admission into Hospital. One man of the 7th Hussars was so severely injured on Thursday by the falling of his horse that he was reported to have been killed; but this, we believe, was not the case. A man of the 42nd Regiment received a very severe injury of the wrist, from a pick-axe having been driven through the joint while he was engaged at trench-work.

During our hurried visit to the camp we had an opportunity, through the courtesy of the quartermaster of one of the regiments just returned from the campaign, of seeing the Broad-arrow camp-kitchen in full work. It certainly appeared to answer the purpose admirably, and has both cheapness and simplicity of construction to recommend it. It consists of four sets of ranges, each composed of three flues dug in the ground, in a shape resembling the Ordnance broad-arrow, and converging in one common flue leading into a spacious wattle and daub chimney. The depth of the flues is about two feet, and at regular intervals along the upper surface are openings of a kidney shape, into which block-tin cooking-pans accurately fit, the intervening spaces being filled in with adhesive baked clay. A good wood fire is lighted at the open end of the flue, and the draft through the narrow and nearly air-tight channel towards the chimney is so powerful that there is almost a complete consumption of the smoke, and the heat is carried along the whole length. The flues, of course, work more efficiently when the wind is in a favourable direction, but even when such is not the case they do their work very tolerably. The set of ranges which we saw had been in operation some three or four months, and the soldier-cooks in charge appeared perfectly satisfied with them. The peculiar shape of the cooking-pots is for the sake of portability on the march, as the hollow part of the pot fits on the back; and as each pot cooks for five men, every fifth man on the march carries one, containing the other necessary cooking utensils for the same number of men. The kitchen, we believe, was devised by a sergeant of the Army Service Corps, who, as we were informed by one of the soldiers employed at the one which we visited, received from the Government a honorarium of £5 for his invention.

ROYAL COLLEGE OF SURGEONS.

THE Calendar of this institution has just been published, and, as heretofore, contains a large amount of valuable information for the members of the Profession generally. In addition to the regulations to be observed by candidates for the Fellowship and Membership of the College, the questions submitted during the past year, whether primary or pass, for both distinctions, are published, and will be found of great assistance to those about to offer themselves for examination.

The following analysis of this useful publication will, perhaps, be read with some interest:—It appears that there are now 1334 Fellows of the College—viz., 192 honorary, or those on whom the distinction was conferred in December, 1843, and August, 1846. Of these gentlemen the senior appears to be Mr. Joseph Swan, of Tavistock-square, admitted a Member so long ago as October, 1813; the youngest is Dr. G. M. Humphry, F.R.S., of Cambridge. There are 434 Fellows by examination, of whom the senior appears to be Mr. Robert Martin, of Ipswich, who passed for Membership in April, 1813; the youngest is Mr. Thomas Cooke, admitted a Member and Fellow in the present year. By election there are 706 Fellows, the oldest being Mr. George Burt, the last elected Mr. James Gleadall. For the first time there appear in the present Calendar two gentlemen who have been elected *ad eundem*—viz., Dr. M. Kelburne King and Mr. William McCormac. There are nearly 15,000 Members of the College. The Licentiates in Midwifery have increased to 1014, and those in Dental Surgery to 314.

The following gentlemen are members of the Council, viz.:—*Mr. George Busk, F.R.S., President; *Mr. Henry Hancock and *Mr. T. Blizard Curling, F.R.S., Vice-Presidents; Mr. J. Flint South, *Mr. John Hilton, F.R.S., Mr. Richard Quain, F.R.S., Sir William Fergusson, Bart., F.R.S., *Mr. F. Le Gros Clarke, Mr. Thomas Turner, Sir James Paget, Bart., F.R.S., Mr. Charles Hawkins, Mr. Prescott G. Hewett, Mr. H. Spencer Smith, Mr. John Birkett, Mr. John Simon, F.R.S., Dr. G. M. Humphry, F.R.S., Mr. Luther Holden, Mr. John Gay, Mr. J. E. Erichsen, Mr. W. J. Erasmus Wilson, F.R.S., Mr. Henry Lee, Mr. T. Spencer Wells, and Mr. George Critchett. Those gentlemen to whose names an * is prefixed are also members of the Court of Examiners with the following:—Messrs. R. Partridge, F.R.S., Edward Cock, John Adams, S. A. Lane, and W. Scovell Savory, F.R.S.

The following recognised metropolitan Hospitals appear to be represented on the Council:—St. Bartholomew's, by Sir James Paget, Bart., and Mr. Holden; St. Thomas's, by Messrs. South, Clark, and Simon; Guy's, by Messrs. Hilton and Birkett; the London, by Messrs. Curling (Vice-President) and Critchett; University College, by Messrs. Quain and Erichsen; the Charing-cross, by Mr. Hancock (Senior Vice-President); King's College, by Sir William Fergusson, Bart.; St. George's, by Messrs. Hewett and Lee; and St. Mary's, by Mr. Spencer Smith. The only Hospitals not at present represented on the Council are the Westminster and Middlesex. A vacancy has just been created in the Council by the death of Mr. Solly, which will be filled at the annual election in July next. The Examiners in Medicine are Drs. Peacock and Wilks, F.R.S.; those in Midwifery, Mr. Hancock (Chairman), and Drs. Farre, Barnes, and Priestley; in Dental Surgery, Messrs. Partridge, Hilton, Cock, Cartwright, Ibbetson, and Salter. The Professors are Mr. Timothy Holmes (Surgery and Pathology), Mr. W. H. Flower, F.R.S. (Comparative Anatomy and Physiology), Mr. Erasmus Wilson, F.R.S. (Dermatology), and Dr. G. M. Humphry (Lecturer on Anatomy and Physiology). Two new officers appear as Assistants in the Museum—viz., Dr. Goodhart and Mr. Lidderdale.

Turning to the financial department, we find that this year the disbursements exceeded the receipts by £7 11s. 10d. The following is a summary of the receipts and expenditure for the former:—College income, £11,461 19s. 1d.; from trust funds, £290 3s. 2d.; total, £11,752 2s. 3d. Disbursements for College purposes, £11,433 12s. 2d.

Under the head "Receipts," the largest amount, as might be expected, is derived from fees paid on examination for the several diplomas, amounting to £9279 11s.; the next largest amount is derived from rent of chambers and dividends on stock (£36,000), producing £1907 1s. Elections to the Fellowship, Council, and Court of Examiners yielded £262 10s. The dividends received on trust funds were £290 3s. 2d. The smallest amount was received from Sir Charles Blicke's bequest of £300 to the Library—viz., £8 17s.; the largest on Mr. Erasmus Wilson's liberal donation of £5000—viz., £147 10s.

The expenditure, which amounted to £11,759 14s. 1d., was chiefly on account of fees paid to members of the Council, Courts of Examiners, etc., and salaries and wages to the large staff of officers and servants of the College. The Councils and Courts received £4377 18s. 6d.; for this amount the former attended fourteen meetings, and the latter during the past collegiate year held six meetings for the examinations for the Fellowship, forty-seven meetings for the primary and pass examinations for the Membership, two meetings for examinations in Midwifery, and one for the Licence in Dental Surgery. The amount paid for salaries and wages was £3387 8s. 10d.—not an extravagant sum when the large number employed is taken into consideration, as we find there are eight officers and fifteen servants, exclusive of extra assistance. For taxes, rates, and stamps (not including postage), the large sum of £974 17s. 7d. was required. Pensions are put down at £457 3s. Law expenses, £146 10s. 10d. Subjects, patients, bandaging, and refreshments at examinations, £158 3s. 11d.

The following analysis of the examinations may be interesting:—At the primary examination for the Fellowship during the past year 93 candidates offered themselves; of this number 54 passed, and 39 were referred for six months. At the pass examination for the same distinction 29 candidates went up, of which number 18 passed, and 11 were referred for one year. For the *primary* examination in Anatomy and Physiology for the Membership there were 603 candidates, 424 of whom passed, and 179 were referred for three months. For the *pass* examination in Surgical Anatomy and the Principles and Practice of Surgery and Medicine there were 382 candidates; 247 passed, 59 were approved in Surgery but were required to qualify in Medicine, 44 were approved in Surgery and afterwards qualified in Medicine, and 291 diplomas were granted; the rejections for six months amounted to 76. For the Licence in Midwifery 12 were examined, 7 passed, 2 were referred for a written examination, and 3 were altogether referred. For the diploma in Dental Surgery 10 candidates were examined, of whom 8 passed to the satisfaction of the Board, and two were referred to their studies for six months.

The gentlemen who have filled the office of President, taking them in seniority, are: Messrs. South (twice—viz., in 1851 and 1860), Hilton, Quain, and Sir William Fergusson, Bart. There have been four representatives of the College in the General Council of Education and Registration—viz., Messrs. Green, Arnott, Hawkins, and Quain. The Honorary Medal of the College has been presented to Messrs. Wilson (1800), Parkinson (1822), Swan (1825), Bennett (1834), and Crowther (1869).

The Collegial-Triennial Prize has only been awarded on six occasions—viz., in 1822 and 1825 to Mr. Joseph Swan, in 1840 to Mr. Thomas Williams, in 1843 to Mr. Holmes Coote, in 1846 to Mr. Henry Gray, and in 1858 to Mr. George Harley. For the Jacksonian Prize a long list of prizemen appears. The following is the subject for the Collegial-Triennial Prize: "The Structure and Functions of the Medulla Oblongata, including the Connexions of the Central Nerve Roots." The prize consists of the John Hunter medal, executed in gold, to the value of fifty guineas, or, at the option of the successful author of the dissertation, of the said medal executed in bronze, with an honorarium of £50. The subject of the Jacksonian prize for the present year is, "The Treatment of Wounds after Operations, including the Arrest of Hæmorrhage, Primary and Secondary." The subject of the prize for the ensuing year (1872) is, "The Diseases of the Nose, including those of the Sinuses connected with it, and their Treatment."

It only remains to add that the compilation of the Calendar reflects credit on all engaged in it. Were we disposed to be hypercritical, it would be to inquire why only one Fellow is allowed to place "M.D." after his name when there are amongst them and the Members so many graduates in Medicine of Universities in the United Kingdom.

THE FIVE PAST PRESIDENTS OF THE NEW SYDENHAM SOCIETY.

The Council of the New Sydenham Society has presented to each of its unpaid officers a handsome portfolio, containing photographic portraits of the five gentlemen who have held the office of President of the Society—viz., Sir James Paget, Sir Thomas Watson, Dr. Williams, Mr. Hilton, and Dr. Stokes. The Society owes its prosperity in great measure to the activity of the local secretaries, and it was felt, at the general meeting of 1869, that some acknowledgment was due to those gentlemen beyond an annual vote of thanks. The Council were empowered to devise some method of discharging this obligation, and that which they have chosen will be, doubtless, accepted as graceful and appropriate. The portraits have been taken expressly for the purpose, and are of great excellence.

A GOOD AND SENSIBLE EXAMPLE.

So great an alarm was lately caused at Ruthin, North Wales, in consequence of several deaths having occurred from typhus fever, that the people began to desert the village, and a complete exodus was threatened. Mr. Watkin Williams, M.P., hearing of the terror which prevailed, went at once to Ruthin, visiting the fever-stricken patients, and trying to allay the fears of the inhabitants. His efforts were successful. There was, we believe, no occasion for the great alarm which existed. The example set by Mr. Williams is, however, highly commendable. Nothing is more depressing than fear, and more likely to predispose to fever, whilst a bold faith and hope have a contrary effect—

> "Thus drew Marseilles' good Bishop purer breath,
> When the air sickened and each breeze was death."

A MEMORIAL TO HARVEY.

A MOVEMENT has been set on foot for the erection of a memorial to our distinguished fellow-countryman Harvey, on the occasion of his 300th birthday. The memory of John Hunter is best perpetuated by the museum which he did so much to establish; but for Harvey there is no such memorial—for though his great discovery has now become part and parcel of our every-day knowledge, and is within the circle of the most limited education—nay, though now Harvey's proofs seem so childishly simple that his discovery appears as though it were no discovery—we have but to look back to the opposition he himself encountered, and to the obloquy showered upon him, to understand something of his position when nearly 300 years ago he proclaimed abroad what he had long before established in his closet. It is fitting there should be a memorial of such a man above and beyond what has been done by the College of Physicians to keep his memory green. Their efforts may do thus much within a certain circle, but it is right that something should be done beyond these to perpetuate the name of the great discoverer. To this end a movement has been commenced in Folkestone, Harvey's native town, to procure for him some memorial on the occasion of the 300th anniversary of his birthday, which falls in 1878. A public meeting has been held in Folkestone, and the proposition has been well received; but it is desirable that any memorial should have a national rather than a local character. It is proposed that the memorial shonld take the form of a statue; and for that no better place than Folkestone could be chosen—better, far, than having it erected in London, and, when some new military hero is voted a statue, seeing it displaced and hidden, as has been that of Jenner. Meanwhile, subscriptions are wanted—not from Medical men alone, but from all interested in the advance of sound scientific knowledge; and Dr. Bence Jones, Honorary Secretary to the Royal Institution, has consented to act as treasurer. The honorary secretaries are—Dr. George Eastes, Albion-place, Hyde-park-square; and W. G. S. Harrison, Esq., Town Clerk's Office, Folkestone. We would strongly advise the gentlemen immediately concerned in getting up the memorial to extend its basis as widely as possible; for, though a local memorial to Harvey would be a great thing, a national one would be far greater. Probably their best course would be to call a meeting, gathering together the heads of the Profession, so as to obtain their sanction and countenance—individual enterprise might then be left to do the rest. But to give the scheme a proper *locus standi* these men ought to be invited to take part in the movement.

CHOLERA AND COPPER.

IT is well known that during the epidemics of cholera which have occurred in this country, Birmingham suffered little or nothing in comparison with other large towns. The cause of this immunity from the disease was variously accounted for. One of the most prevalent opinions was, that it was dependent mainly on the extent of the workings in copper carried on in the town and neighbourhood. It would appear from a late publication of Dr. Burg's that there is some ground for believing that that opinion is the correct one. Dr. Burg, in revising the different statistics of deaths from cholera during its last outbreak in Paris in 1864 and 1865, finds that, out of 26,332 artisans in brass and copper, there were only 16 deaths—viz., 6 per 1000. In other statistics he finds, among 5650 coppersmiths, founders of bronze, and manufacturers of brass instruments, not a single death is recorded from cholera. In the Society of the "Bon Accord," formed in Paris in 1819, and composed only of workers in bronze, there has not been a single member attacked by cholera since the foundation of the Society; and we may add to these curious and interesting facts that the city of Mio-Tinto, protected as it is by the surrounding copper mines, has never been visited by the epidemic, although it ravages all the surrounding provinces.

THE BLOOD IN CHYLURIA.

PROFESSOR HOPPE-SEYLER (*Med. Chem. Unters.*, 1871, p. 551) has recently been fortunate enough to obtain and analyse, simultaneously, specimens of both the blood and urine of a female patient of the late Professor Niemeyer's, suffering from chyluria, and thus to contribute to our scanty knowledge of the pathology of this obscure disease. The urine had a milky-white appearance, and contained 7·2 parts per 1000 of fat. The blood yielded 41·3 per cent. of serum, of a yellowish colour, barely turbid, and not in the least milky. Indeed, there was perfect coagulation of the blood, and the serum was not of the same fatty nature as the urine. The analytical results exhibit a smaller proportion of albuminoids than is usual. This, Hoppe-Seyler suggests, may be owing to loss through the urine, to dilution with lymph in consequence of the manner in which the blood was drawn (by cupping), or to both these causes. The serum contained a high percentage of fat, whilst the blood corpuscles did not appear to contain fat in larger proportion than normal corpuscles; nor were the red corpuscles and the colouring matter of the blood (hæmoglobin) diminished. Since the whole blood contained 1·7 per 1000 fat, the serum 35·9 per 1000, and the urine 7·2 per 1000, Hoppe-Seyler thinks it is evident that transudation is not the sole source of fat in the urine, but that a certain amount of the transuded fluid, deprived of or poorer in fat, passes back either into the lymph or into the bloodvessels. We may add a third, but less probable, alternative—that fat is actually formed in the kidneys.

SMALL-POX AT BERKELEY.

IT is probable that the town of Berkeley is indebted for the small-pox epidemic, with which it has been rather severely visited this season, to the first instalment of "navvies" from some very important public works which are now beginning to be carried out by the Bristol and Berkeley Canal Company. The works will last about three years, and give employment to about 1000 labourers. There has, however, been an energy shown in meeting the disease which might advantageously be imitated in other communities. Three new Hospitals were constructed, roughly indeed, but of such a kind as to meet the requirements of the case. We are glad to say that the present accounts are highly favourable, and it is expected that the epidemic will soon entirely disappear. It seems a desecration to the memory of Jenner that small-pox should be epidemic at the very spot where he discovered the beneficent powers of vaccination.

THE WAY TO STAMP OUT SMALL-POX.

IT is now all but universally admitted that revaccination is requisite for proper protection against small-pox, after a certain period has elapsed since the first vaccination. If this system were generally carried out, this frightful disease might be, at no distant time, completely eradicated. We are glad to announce that the Vice-Chancellor of the University of Oxford has just issued the following notice to the undergraduates who will come up next term:—

"There has been small-pox in Oxford during the long vacation, not of a very serious character, and the disease is now much abated. Still, for security, I think it right to require that every young man who has not been properly revaccinated within the last seven years, or since he attained the age of 17, should submit to the operation before his return on the 13th."

Why could not such a wise regulation be carried out in all our schools and colleges?

OPHTHALMIA AT PLASHET SCHOOLS.

IT is satisfactory to state that the children suffering from ophthalmia in these schools are progressing favourably under the care of the Medical Officer. It is not creditable to the authorities that the causes producing this formidable disease

should have been so long in existence. It is to be hoped that the late epidemic will have given them a lesson in hygiene, or, at all events, will induce them to seek Medical aid for their charges the moment disease of any kind presents itself. The amount of suffering that may be prevented in such cases by prompt attention can scarcely be conceived.

EFFECTS OF THE WAR ON MEDICINE.

One of the most striking effects of the late war on our Profession has been manifested in the University of Strasburg. Last year only eleven Medical students presented themselves for examination, whilst in the previous year no less than 1014 received their degrees. One cause of this extraordinary falling off is the awkward position in which graduates of this University are placed, their degrees being acknowledged neither by France nor Prussia.

FROM ABROAD.—RELATION OF OSTEO-MYELITIS TO PURULENT INFECTION—CUNDURANGO IN CANCER—THE GERMAN MEMBERS OF FRENCH SCIENTIFIC SOCIETIES.

During the debate at the Paris Academy of Medicine, which, after having dragged with tedious monotony through months and almost years, but which is now happily, if not satisfactorily, terminated, one of the very few practical contributions was made by M. Gosselin, who called attention to the very considerable part which osteo-myelitis plays in purulent infection. He brought out the fact prominently that septicæmia and pyæmia are of far more frequent occurrence when there is simultaneous suppuration of the large bones and of the soft parts than when there is suppuration of the soft parts alone. At the last meeting of the Academy, M. Demarquay read a paper confirmatory of this view, founded upon a large number of cases of severe wounds that came under his care during the recent events. From the autopsies which he has made, it results that, whenever he has observed during life symptoms of purulent infection, and after death the pathological conditions characteristic of that affection, he has also constantly seen well marked osteo-myelitis affecting the bones of the broken limbs; and anticipating the objection that this osteo-myelitis is in the same position as numerous other manifestations of purulent infection—*e.g.*, visceral abscesses—he states that the osteo-myelitis, in all the cases in which he has observed it, affected the fractured or contused bones only, and not those which had not been exposed to violence. On several occasions he had met with men who seemed to have sustained but slight injury—the ball, arrested by the femur or tibia, or having coursed around the bone, producing apparently only a slight contusion. Nevertheless, at the end of twelve or fifteen days the wounded men became the subjects of purulent infection, and on sawing through the bone affected a fine specimen of osteo-myelitis would be discerned.

It is, indeed, already well known that in spontaneous osteo-myelitis, which has been so well described by M. Chassaignac, death occurs just as in the traumatic form; and, nevertheless, in such cases there has been no contact of air to change the liquids contained in the medullary cavity, and impart to these the fetidity so familiar to anatomists. In order that these liquids should remain inoffensive, the internal surface of the bones must have remained impermeable to the liquids contained in the medullary canal. But the experiments of M. Cruveilhier, and more recently those of M. Ollier, have shown that absorption may take place in the medullary canal. M. Demarquay has himself repeated these experiments, and in the present paper gives some account of the results which he has obtained. In a series of rabbits he opened the medullary canal of all the bones of the limbs, and then, by means of a Pravaz syringe, injected a solution of strychnine into the interior of the bones. In a few instants, when the operation has been well executed, the animal dies, with all the symptoms of poisoning by strychnine. To avoid all sources of error, the parts in the vicinity must be well protected; and in order that the absorption may take place rapidly, great care must be taken in fixing the animal, and the injection must be made gently, so that the small vessels of the medulla of the bones do not undergo laceration, which would give rise to a hæmorrhage that might interfere with the experiment. It might be objected that, although the thin and delicate vessels of the medulla may allow of the penetration of an aqueous solution of strychnine, this does not prove that an albuminous fluid like diluted pus can pass in the same manner. To meet this objection, other experiments were performed, in which diluted pus was injected into the medullary cavity, and rabbits so treated died with the symptoms of purulent infection, and exhibited after death the pathognomonic elements of this affection. M. Demarquay adds that he has, while engaged in investigating the subject of callus, frequently produced traumatic injuries in rabbits in every respect similar to those required for the performance of the above experiments, and that these rabbits, when they have been well dressed and well fed, have never died in consequence of similar lesions. This may be regarded as a kind of preliminary communication, as M. Demarquay intends continuing his experimental investigation of the subject.

Ministering to the desperate hopes of the victims of incurable disease is by far too profitable a mine for its working to be readily abandoned by charlatans, whether within or without the ranks of the Profession. Of course these are not to be confounded with the mere sanguine enthusiasts who honestly believe that they have hit upon discoveries which shall benefit mankind, and who naturally look for their reward. The large prize offered every year by the French Academy of Medicine for the discovery of cures for incurable diseases always produces its crop of candidates, and, although the claims of these prove worthless on examination, no one can blame their being proffered in order that they might receive the sanction of Medical science. It is always possible that out of efforts of this kind some good may result; and without effort of some sort we are likely to remain stationary. But this is not the line of procedure of the regular charlatan. He wants no academical sanction, which is much too circuitous a route for him to pursue, involving as it does all the bother of legitimate observation and inductive proof. He appeals directly to the hopes and fears of the victims themselves; and as long as men love life as they do, if he only promise boldly enough he will always meet with willing auditors. The last promiser of the impossible who has appeared on the scene is a Dr. Bliss, of New York, who declares cundurango to be a cure for cancer, without apparently any legitimate ground for making any such statement. We believe him to be a respectable member of the Profession; but at the very least his conduct must be regarded as highly questionable in circulating all over the country statements of the curative powers of this drug, without being able to adduce a single case that can be regarded as satisfactory. In the Profession his statements have soon been disposed of; for of the numerous trials of his remedy, made by independent and competent persons, none have proved successful. But the harm done by exciting false hopes, impairing the dignity of the Profession, and encouraging empiricism and quackery in imitating their modes of procedure, remains.

We had hoped that with the advent of peace the irascible feelings which at first prevailed in some of the French scientific societies against their German members would have subsided; and, in fact, that it has done so in part appears by the very sensible and temperate report respecting the conduct to be held towards them which has just been presented to the Biological Society by M. Bouchard. The subject was brought before the Society by M. Paul Bert, the distinguished and rising physiologist, from whom we should have expected better things than the following resolutions which he proposed:—

"1. That the *savants*, whether natives or inhabitants of

Germany, recently at war with France, who are, under any title whatever, members of the Biological Society do cease to form part of the said Society. 2. No *savant* having such origin or residence shall in future be nominated a member. 3. The Society will not receive as a communication, nor receive in *concours* for its prizes, any memoir emanating from a *savant* belonging to either of these categories. 4. That they shall be interdicted attending the meetings of the Society."

The Society might well pause before committing itself to such an extreme and narrow-minded declaration as this, and accordingly it handed over the proposition for the consideration of a committee composed of MM. Robin, Giraldès, Ollivier, Ranvier, and Bonchard, and in which anti-Germau views were certainly not unrepresented. The report produced by M. Bouchard is a very sensible and creditable document, in which he points out forcibly the indiscriminate character of M. Bert's accusations and proposals, and indicates the losses which would accrue to France from this breaking up of her scientific relationships with so progressive a country. He protests against chaining down the future to present animosities, and asks what those who are now only learning or may not yet have come into existence can have to do with the alleged delinquencies of the present race of *savants*. "We cannot," says the reporter, "approve an attitude the tendency, if not the effect, of which would be to create an obstacle, however slight this might be, to the expansion of ideas. Learned societies, above all, should avoid placing any hindrance to the relations between peoples. We are well aware that by the force of circumstances such relationships have been compromised. Bnt if we seek less than heretofore the hospitality of those to whom we do not refuse it, and if Germany ceases to be for us the land of studious pilgrimage, we shall do wrong. It is by science especially that we have been vanquished, and it would show little sense if we shun those who, after having received much from us, may, in their turn, communicate to us the secret of their strength." One of the statements upon which M. Bert based his proposal was, that certain of the German Surgeons knowingly committed acts of cruelty, while others engaged in systematic pillage of scientific objects, whether public or private. "Such odious conduct," M. Bouchard observes, "indeed constitutes a crying grievance; and if any of the twenty-one members of the Society have been guilty of it, let him be stigmatised as he deserves, and expelled."

Another society—the Société Médico-Pratique de Paris—has pursued a less reasonable course. At its meeting on June 28, 1871, it confirmed the following resolutions which had been bronght before it three months before—so that it had had ample time for reflexion—while some of its members cautioned it against acting thus *ab irato*:—

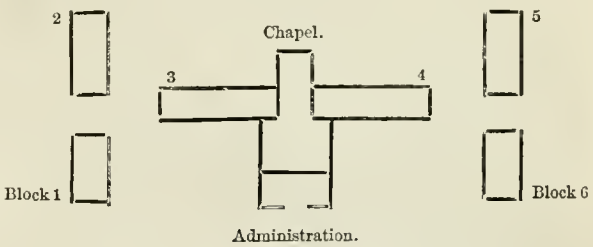
"This Society," say the resolutions, "loudly proclaims that one of the greatest conquests of modern civilisation is, beyond all contradiction, scientific neutrality; but it does not hesitate to declare that any nation that shelters espionage and pillage behind science voluntarily places itself without the laws of civilised peoples—and, in consequence, this Society decrees the definitive expulsion of all German Physicians who have the honour of belonging to it, whether as Titular or Corresponding Members. Moreover, it expresses the wish that all French Faculties and Scientific Societies may in future be closed against German subjects, remaining, however, widely open to the French students and Practitioners of Alsace and Lorraine."

During the discussion much effect was naturally produced by the statements made by some of the members of the Society, that several German Physicians had, both prior to and during the occupation, acted as spies, while others had stolen instruments, books, manuscripts, etc., from the houses of their French *confrères* in which they had been quartered. One member—M. Bourdin—declared that a Prussian Physician who had inhabited his house at Choisy-le-Roi for several months abstracted from his library of rare books an entire collection of works and memoirs on suicide, which he had been years in accumulating and annotating. The Prussian *savant* characterised it as a "precious collection," and exhibited the sincerity of his appreciation by appropriating it.

BROADMOOR CRIMINAL LUNATIC ASYLUM.

Some years ago, when benevolence seemed to be the moving spring of our treatment of criminals, it was resolved to collect together in one building all those criminals who, while undergoing any sentence, became insane, or who had been acquitted after the perpetration of crime on the ground of insanity. A site was selected among the heathery hills of Berkshire, where now may be seen the imposing-looking building called Broadmoor Lunatic Asylum. The Asylum is situated on the brow of a hill, looking south over Aldershot in the distance, within two miles of Wellington College on the South-Eastern, and four miles of Bracknell on the Waterloo, Staines, and Reading line. It is not, therefore, very convenient of access, which tends to foster the development of internal resources; so that, though when the Asylum was built nothing was to be seen around it but heather, it is now surrounded by well-cultivated fields and gardens. The Asylum was opened in 1863 for female patients, and in the succeeding year for males; but large as is the accommodation, it is already too small, and will doubtless have to be increased.

The building itself, which is of red brick, is built on the block system, the male division consisting of six blocks, the female of two. The two divisions are completely disconnected, and between the two lies the house of the Medical Superintendent, Dr. Orange. The six male blocks are situated three on either side of the central administration department, which also contains the chapel, amusement-room, etc. On either side of the chapel, and at right angles to it, projects one of the blocks referred to, and these, again, are faced at right angles by other two, so that the whole of the male division has an arrangement something like this—



The staff consists of three Medical officers—the Superintendent, Dr. Orange; his deputy, Dr. Cassidy; and an Assistant Medical Officer, Dr. Gray. The duties are thus divided:—Dr. Orange takes charge of the female blocks, and fulfils the general duties of superintendent, which are of a most onerous nature; Dr. Cassidy takes three male blocks, including the Infirmary or No. 3 block; and Dr. Gray takes the others. Of course there are many other matters to be attended to besides mere ward visitation. Roughly, however, the work is distributed as indicated. The work itself is wearing in its character, the patients being in many instances utterly intractable. As far as possible the wards are divided into day rooms and dormitories, but a very large proportion of the patients require to be confined separately, at all events at night. None of the patients we saw, however, had other means of restraint applied than seclusion or careful supervision. Strait-jackets are not employed. Of course this would not be possible with such a class of cases were not abundant help always at hand, so that the number of attendants is greatly above the average of other asylums; yet even with this number accidents are not unfrequent, attendants being struck or otherwise injured in a considerable number of instances during the year.

The exercising grounds are situated on the face of the hill in front of the building, and there is a distinct piece of ground for each block. It should further be said that the whole

building is supplied with earth-closets, which are found to act admirably with a little care. The night soil is removed day by day, and is never allowed to accumulate; so that the wards and dormitories are kept clean and sweet.

But it is time we saw something of the inhabitants of Broadmoor. They ordinarily number between 400 and 500, and are of two distinct classes. All are alike in that they have committed crime, and more than 100 of them have committed that greatest of all crimes—murder; but they differ in this respect: some have been guilty of but one crime, committed, it may be, under maniacal impulse, whilst others may have spent their lives in crime—that is to say, what of their time was not spent in prison. The former group, then, consists of men and women who have never been tried, being proved insane when the time of their trial came on, or who have been acquitted on the ground of insanity, or who, having been found guilty by the jury, are afterwards sent to the Asylum by the Home Secretary for the time being, to be detained during her Majesty's pleasure. This group comprehends not a few men of good position, whose brain having been turned, have rushed into crime; and let it be said that these are the most manageable class—far different from the other group, which consists of men who have been trained and educated in crime, and who have graduated in half the gaols and prisons in the country. During their confinement in one of these, signs of insanity, which may long have existed undetected, are observed, and they are sent to Broadmoor, where they are detained until their period of sentence has expired, and sometimes much longer. Some of the members of this group are gifted with every evil quality it is possible for them to possess. Steeped to the lips in crime, they add to the evil training of the convict class the fell purpose and maniacal impulse of the madman. The ordinary madman is seldom capable of combining with others in order to effect his purpose; but with these it is not so—they enter into conspiracies for effecting their escape or murdering their keepers, and it is often only by the merest accident they are discovered in time to save life and limb. Not unfrequently they succeed in intimidating the attendants by threats of violence, which would be carried out were there the slightest opportunity. These seem also to be able to mature a resolution and to persist in its execution in a way quite unlike the ordinary lunatic. Perhaps some of the lowest types are to be found among those who have been guilty of arson, for in these natures destruction is an aim and object for itself, and burning is at once one of the easiest and most effectual means of gratifying this impulse; but, besides, they are given to inordinate revenge for slight offences, and this propensity they readily gratify in the same way.

Let it be added that there are in the Asylum a considerable number of whose insanity there are more than doubts, but who have made themselves so obnoxious to their officers in convict prisons as to be sent to a madhouse as insane. Of course the discipline and diet of an asylum are very different from those of a convict prison, so that they have every reason for persevering in their shamming, if such it be.

In the infirmary we noted some interesting types of cerebral disease. Some of the most common were cases of general paralysis of the insane. The periods during which these patients survive are very various—in some instances, Dr. Orange says, extending over ten years, though the majority die much more quickly; usually within two years. Most of those we saw were in bed, some in an advanced stage of the disease. Their condition was very peculiar. Some seemed as fat as possible; but this speedily gives way to emaciation, and they become thin, and troubled with bedsores. One man we noticed in a condition something like melancholia attonita, with a peculiar rigidity in all his limbs, so that if his hands or arms were moved into any position, they would persist in it, apparently without any volition on his part, only gradually resuming their former condition. He could walk when roused, but when allowed to sit down seemed at once to recover his old position.

A case struck us as we entered a ward. The patient had much of the aspect of a general paralytic, and his hands and limbs were hanging down uselessly. His history, however, as pointed out by Dr. Orange, promptly refuted any such notion, for he had suffered first from hemiplegia on one side, the other also becoming affected after a time in like manner. There was also in his look something altogether different from a general paralytic when closely scanned, especially more brightness and intelligence in the eye. Altogether, this case was an exceedingly instructive one, which would have been welcomed in our schools.

Among the patients in the Asylum we noted what seemed to us an unusual proportion afflicted with what has been called the "madman's ear." The organ first of all gets swollen and thickened (most likely in the concha), or there may be an effusion of blood constituting a hæmatoma; but after a time contraction takes place, causing alterations in shape—very often a tendency to curl up, or to become otherwise distorted.

Any account, Medically, of Broadmoor Asylum would be incomplete without reference to the local fever. This does not seem so prevalent now as when the Asylum was first opened; still it prevails. In its type it is more continued than intermittent, and is generally accompanied with diarrhœa. It is not dangerous, though it often proves lingering. We are not aware that it has in any instance caused death.

Finally, we beg leave to return thanks to the authorities for their courtesy and consideration. Their admirably kept case-books and post-mortem books were placed freely at our disposal, and every opportunity afforded us in inspecting the institution.

AUTOBIOGRAPHICAL RECOLLECTIONS OF THE PROFESSION.

No. XVI.

By J. F. CLARKE, M.R.C.S.,
For nearly forty years on the Editorial Staff of the "Lancet."

Mesmerism as a Physical and Remedial Agent—Clairvoyance—The Spirit of Prophecy—Were the O'Keys Impostors?—Action of the Committee of the Hospital—Resignation of Dr. Elliotson—Meeting of Students, etc.

So long as the inquiries into the physical and remedial powers of mesmerism were carried on with calmness and carefulness, the experiments on the O'Keys were watched with intense interest by Medical and other observers. There were, as there always are in such inquiries, two parties, one on the side of the experimenters, the other against them; but it may be stated with perfect truth that fair-play was observed. The chief cause of discontent, however, was on the part of the clinical clerks, who were occupied for hours together in "pawing" the in- and out-patients. Some of the young gentlemen so engaged were worn out by this really very serious labour. In the midst of all this, Dr. Elliotson continued to superintend the manœuvres for many hours a day, always earnest, always energetic, and, as I believe, actuated by the most disinterested and praiseworthy motives.

It was only when the inquiry was assuming a totally different character that most persons engaged in it began to assume an offensive attitude. Elliotson and the ultra-believers were carried away, by the partial success of their efforts to show the real influence of mesmerism, into experiments on *clairvoyance*. O'Key was consulted, when in the mesmeric state, as to the remedies which were to be employed in her own case, and in that of others. Her dicta were assumed to be reliable, and were acted upon. It is scarcely necessary to say that the results were not satisfactory. It is necessary to state, in defence of Elliotson's proceedings, however, that Dr. Macreight, one of the Physicians of the Middlesex Hospital, had made him acquainted with "a fact" which had a considerable influence on his conduct. Dr. Macreight had informed him that a girl under his care had been placed under the influence of mesmerism in order that she might prescribe for her ailment—hysterical mania.

This girl was in the habit of visiting Dr. Maccreight at his house in Queen Anne-street. On one occasion, whilst under the mesmeric influence, she was asked what drug would relieve her. According to Dr. Maccreight's account, she said, "There is only one medicine that will be of service to me; it is contained in a bottle on the third shelf in your private chest—the second bottle from the right." Curiously enough, this was the ammoniated tincture of iron. This was administered, and the patient recovered. Dr. Maccreight was a man of intelligence, and of the strictest probity; and I well remember, at a meeting of the Royal Medico-Botanical Society, of which he was a member, the graphic and minute account he gave of the circumstances. The late Lord Stanhope was in the chair, and expressed his firm belief in the prophetic powers of the patient. I mention this, not to prove the "fact," but rather with the object of saying that the late Lord Stanhope was a firm believer in the ultra-powers of mesmerism. But he disbelieved the beneficial powers of all medicines except those of a vegetable origin, and lent his name and authority to systems of botanic treatment and to certain quackeries which the experience of mankind could not endorse.(a)

After a variety of experiments to test in every conceivable way her powers of prophecy, and her ability to see without eyes, etc., O'Key's career was cut short in the Hospital in the following manner:—It had been noticed that on some occasions, when passing by the bedside of persons dangerously ill, she shuddered. This was observed particularly by one of Dr. Elliotson's clinical clerks, and this gentleman, with the aid of others, determined to carry out experiments on the subject. Accordingly, one night late, the lights being all but extinguished, O'Key was led into Ward 1, occupied by men. The wards of the Hospital were of an oblong shape, and the beds of the patients ranged round the four sides. O'Key was led carefully and slowly round the room. Nothing particular was noticed in her until she arrived opposite the bed of a man who was *in extremis*. O'Key was then felt to shiver violently, and on being brought some distance from the bed was asked why she shuddered; she exclaimed, evidently with emotion, "Great Jacky is on the bed!" When nearly reaching the door, and having got opposite the last bed in the ward, she slightly shivered. "What's the matter, O'Key?" "Little Jacky is on the bed!" Childish and absurd as these incidents appeared at first sight, they were followed by events which caused extreme excitement in the Hospital. The first man mentioned died before the morning, the second escaped scarcely with his life. It may readily be imagined what alarm these incidents caused amongst the patients, and what scandal was engendered, particularly amongst the enemies of Elliotson. I well remember, on going to the Hospital the following morning, finding the students in a state of the wildest excitement, and numbers of persons waiting to see the "inspired girl." Elliotson arrived earlier than usual that day, and immediately repaired to the theatre, to which he was followed by a great crowd. He seemed somewhat oppressed, but not daunted, and at once proceeded to give an explanation of what some "might regard as prophecy," but which he said was explicable on physical grounds. He then remarked that it was well known that when a person was near death his body gave out a peculiar effluvium. This was not always to be detected, except by persons with a strong sense of smell. Now, O'Key's senses were preternaturally acute, and she could and did detect the effluvium even at some distance from the dying person. After entering into some other points respecting mesmerism, he commenced his round of the wards.

Notwithstanding the explanation he had vouchsafed, the agitation amongst the patients and students continued, and the public mind was much excited. Under these circumstances the Council of University College met on December 27, 1838, and passed the following resolution:—"That the Hospital Committee be instructed to take such steps as they shall deem most advisable to prevent the practice of mesmerism or animal magnetism in future within the Hospital." A copy of this resolution was forwarded to Dr. Elliotson, who, almost immediately, and without, I think, sufficient reflection, resigned his appointment of Lecturer on Medicine at University College, and as Senior Physician to the Hospital. He considered the resolution personally offensive to him, and was exceedingly angry with respect to it. At this time there were two parties in the Medical staff of the University. One might be said to be headed by Elliotson, the other by Liston. A strong personal dislike had long existed between these two remarkable men, and each of them lost no opportunity of annoying the other. The scenes in the Medical Committee-room of the Hospital were often of a very exciting character. Remarks of a very offensive kind were frequently made, and on one occasion Liston was so much annoyed that he declared to me, on our ride home, that he would never enter the Hospital again. The fact was, Liston's party were in the minority, and had to suffer much at the hands of their opponents. Elliotson's experiments had very much weakened his power at the Board, and he was obliged to submit to "indignities" which galled him.(b) The culminating point came with the passing of the resolution by the Council of the College; and this, probably, with his changed position, in the Committee, materially influenced him in the step he took. But he soon, I think, regretted it. At all events, before his resignation was accepted by the Council, he made efforts to rally the students in his favour. Always a favourite with the majority of them, always kind and attentive—a most able teacher—it is scarcely necessary to say that he soon enlisted a great number of them in his favour.

But the opponents of Dr. Elliotson were equally vigilant as himself, and when, on Friday, January 5, 1839, the students held a great meeting in the Anatomical Theatre of University College, the opposing forces marshalled nearly equal. The discussion was altogether above the common of such meetings, and eloquent speeches were delivered on both sides. The principal speaker in favour of the Council was the late Mr. Durance George; in favour of Dr. Elliotson, Dr. W. Wood. The proceedings were occasionally stormy and somewhat personal,

(a) The experiments on mesmerism, and other "heresies" of the time, brought me into close communion with this able but eccentric nobleman. A thorough aristocrat in appearance and bearing, he was always "condescending" in matters relating to "science." A more thorough gentleman never existed. His views on scientific subjects, however, were much contracted, and it is not doing an injustice to his memory to state that his prejudices were stronger than his judgment. I had many conversations with him on various subjects, and always found him communicative and kind. On one occasion I spoke to him respecting the appearance of the great Lord Erskine at the memorable trial of Queen Caroline. It was well known that the veteran orator was to speak in her defence. Intense interest was occasioned by the announcement. A brilliant display of eloquence was anticipated. Lord Erskine rose, and, having made a few introductory remarks, suddenly sank into the arms of Lord Stanhope, who was next him. Lord Stanhope remarked to me, in speaking of this circumstance—"Yes, it is quite true; the old man sank into my arms. He had prepared himself for a great speech, and he rose to speak almost like one from the dead. The house was in a breathless state of suspense and attention; but he had taken an overdose of opium, to the use of which drug he had become the victim, and he dropped down, as many thought, from emotion, but in reality from being overdosed." Many years after, I mentioned to the venerable ex-Lord Chancellor Lyndhurst the anecdote I had heard from Lord Stanhope. Lord Lyndhurst, at the time referred to, was Sir John Copley, the Solicitor-General to the King, and took a prominent part in the impeachment of Queen Caroline. He said: "I remember the circumstance to which you allude perfectly. The Government had been informed that Erskine would address the House. The excitement was intense. We were not without apprehension that the address of the renowned orator might have a seriously damaging effect on the prosecution. The Attorney-General said to me, 'Copley, you must watch him.' I prepared to take notes, and did so. After the utterance of a few sentences Erskine broke down, fell into the arms of Lord Stanhope, and I was saved a 'forensic display,' which I was too happy not to have made against a man whom I regarded with affection and admiration." Whilst upon this point, I may be pardoned for referring to Erskine's first appearance in Parliament. Pitt was then Prime Minister. Erskine entered Parliament shortly after his great and successful defence of Horne Tooke, Thelwall, and Hardy. He had made his magnificent appeals to English juries on the Stockdale prosecution, on the prosecution against Thomas Paine, and on the still more memorable trial against Captain Hardy. His entrance into the House of Commons was regarded by the Ministry as a serious blow to their existence. "I will answer the great orator," said Pitt; and accordingly he took means for doing so. The great advocate—certainly the greatest advocate of our modern times—addressed the House as if he were speaking to a jury at *Nisi Prius*. Pitt, early in the address of Erskine, suddenly, and in the face of his great opponent, stopped taking notes; Erskine was confused, and literally broke down. His vanity was wounded.

(b) It is necessary here to state that Dr. Elliotson had sufficient warning of the dissatisfaction which his proceedings with respect to mesmerism had engendered in the minds of his colleagues at the Hospital. Early in June the Medical Committee of the Hospital held a meeting to take into consideration some "published statements" respecting animal magnetism which had appeared in the *Lancet*. Dr. Elliotson did not attend this meeting, at which resolutions were carried requesting the Doctor to refrain from further "public exhibitions" of mesmerism, at the same time stating that they did not wish to interfere with its employment as a remedial agent when he chose to employ it. In answer to these resolutions Dr. Elliotson said that "*no* consideration" should prevent his pursuing the investigation of animal magnetism; that he had never made a "public exhibition" of it, but had only employed it remedially; and, as it was a subject in which many new facts were likely to be developed, had simply given clinical lectures and demonstrations upon it to the pupils, when a great number of scientific and eminent men had attended, but only on special invitation after their urgent requests to be present. However, he would refrain from further exhibitions of these in the theatre, though he should forward to the Committee the names of such gentlemen as might in future apply for permission to witness the experiments, leaving it to the Committee to sanction the admission to the theatre of such persons as they chose to approve of. A list of applicants was forwarded to the Committee, who would not sanction their admission. The public exhibitions in the theatre were discontinued, but mesmerism was still practised in the theatre, and numerous small parties assembled to witness its effects on the O'Keys through the medium of mesmerised gold, water, etc.

but, taken altogether, they were not discreditable to the students. Motions, amendments, and counter-amendments were proposed. Eventually the following resolution was carried by a majority of three or four in a room containing about 300, one-third of them not voting:—"That the students of University College, duly appreciating the high Professional acquirements of Dr. Elliotson, and the inestimable value of his services here, do most sincerely regret the circumstances which necessarily led to his resignation as Professor of the Principles and Practice of Medicine in the College, and as Physician to the Hospital." The numbers voting appearing to be nearly equal on both sides, it was eventually determined to take them by ballot the following day. There then appeared to be 124 in favour of the resolution, 111 against it. Both parties appeared to think the result a victory, and united in cheers. The Council had to meet at four o'clock, and the resolution had yet to be forwarded to them. Before that could be effected the Council had accepted the resignation of Dr. Elliotson.

From this time mesmerism, except by occasional fits and starts, ceased to occupy the minds of the Profession. It was "scotched," if not "killed," and if experiments were carried on, they were in private houses, or by charlatans in the lecture-rooms of "literary" and "scientific" institutions. Dr. Elliotson gradually lost his practice; but he retained for some years a respectable position as a consultant. It is remarkable with what tenacity he held to the opinions he had formed respecting the influence of mesmerism; we believe he retained them to the last.

What a marvellous career was that of Elliotson! His father was a druggist in the Borough, where he amassed a considerable fortune. He had two sons, John and Thomas, who were sent to the University of Cambridge, where they graduated. John Elliotson was elected Physician to St. Thomas's Hospital at a comparatively early age, and did not seem at first destined to make a prominent figure in the Profession. In the years 1827-28, etc., he commenced publishing in the *Lancet* short reports of cases under his treatment in the Hospital. To each of these were appended a few clinical remarks, always to the purpose, always terse and epigrammatic. The result was, the unknown Physician became in twelve months the talk of the town, and the recipient of £5000 in one year, his income the previous year being only £500. He was chosen to fill the Chair of Medicine at the University of London (as it was then called), and was made Senior Physician to the North London Hospital. He acquitted himself in these appointments admirably, and was one of the most popular teachers that ever existed. In the zenith of his fame, in the prime of life, in full usefulness, he unfortunately took up with mesmerism. Honest himself, he believed all others were equally honest, and hence the result—Elliotson and mesmerism stood and fell together.

It is somewhat curious that the journal which in 1828 had laid the foundation of his fame and fortune should just ten years afterwards do so much to effect his ruin; but it was so. Nothing could have been more bitter or telling than the leading articles in the *Lancet* on "The Mesmeric Humbug." These and the exposure of the O'Keys in Bedford-square brought matters to an issue.

Stripped of all nonsense and all supernatural attributes, it must be acknowledged that the subject of animal magnetism is one of intense and fascinating interest. Sceptics have been puzzled, believers bewildered by the phenomena displayed. The subject is intricate and confusing; but should it be a prohibited one for investigation? Perhaps the following quotation from "The Correlation of Physical Forces," by Mr. Grove, is not an irrelevant answer to the question:—"Without pretending to know what, probably, we shall never know—the actual *modus agendi* of the brain, nerves, muscles, etc.—we may study vital as we do inorganic phenomena, both by observation and experiment. The effort to establish one observation leads to the imperfect perception of new and wider fields of research, and, instead of approaching finality, the more we discover, the more infinite appears the range of the undiscovered."

Popular indignation against the practice of mesmerism had been excited by leading articles in the *Lancet*, on its absurdity and immorality. These articles were written by Mr. Wakley, in his most forcible and trenchant style. Moreover, a series of experiments to prove that the O'Keys were impostors had been instituted and carried out by Mr. Wakley, at his private house in Bedford-square. I was present at these experiments; and though it is true that the O'Keys failed to "prove their full powers," much was brought before the notice of the gentlemen assembled that was surprising and puzzling. After a lapse of three and thirty years, reference to these experiments and some account of them may not be without its interest at the present day. Now that the subject may be calmly discussed, "without fear and without malevolence," I propose to devote my next article to what I hope may be an impartial *résumé* of these memorable proceedings.

THE HAMPSTEAD HOSPITAL INQUIRY.

The charges brought against the management of the Temporary Small-pox Hospital, at Hampstead, by Messrs. W. Greaves, A. E. Kynaston, and John Aikman, recently Assistant Medical Officers in the Hospital, are now being investigated by Mr. Henley and Dr. George Buchanan, two Special Commissioners appointed by the Local Government Board. The inquiry, which is a public one, is being held at the offices of the Metropolitan Asylums Board, Norfolk-street, Strand. Besides the charges brought by the three Assistant Medical Officers, the case of the missing child is to be made matter of separate investigation. On the first day of the inquiry the Committee of the Hospital were represented by Mr. Hammond, and afterwards by Mr. Montague Williams; the three Assistant Medical Officers by Mr. Collins and Bucknill; and the father of the lost child by Mr. W. Wright. The following are the charges originally brought by the three Medical Officers in a letter published in the *Times*. The official inquiry was demanded by the authorities of the Hospital. As the inquiry is one of special Medical interest, we propose giving a *résumé* of the evidence:—

The charges were (1), that delirious patients, more particularly children, were tied down to keep them in their beds at a time when their bodies were covered with the small-pox eruption; (2) that strait-waistcoats were used for the same purpose; (3) that patients in an acute ward, in the height of the disease, had been provided with a most inadequate supply of milk and fluid during the night; (4) that patients on low diet were kept without food from 7 a.m. until 3 p.m.; (5) that complaints were continual regarding the unfitness of the food supplied; (6) that through the totally inadequate number of nurses, children had been found dead in bed, and the nurse ignorant of the fact; and (7) that the body of a patient who died at midnight had been removed into the bath-room, where it remained all night in a most offensive condition. There were other charges, including that of the lost child, and these were the chief; and the Medical Superintendent, Dr. Grieve, was pointed at as being responsible for this alleged condition of things.

The inquiry commenced on Thursday, September 21.

Mr. Henley, the Commissioner presiding, on opening the proceedings, stated that he and Dr. Buchanan had been instructed by the Local Government Board to inquire relative to the specific charges made in the *Times*, and they proposed to go into those seven charges first, before doing anything else.

After some discussion as to the mode in which the inquiry was to be conducted, and its limits,

Mr. Collins opened the case of the seven charges made in the letter in the *Times*, and he stated that complaints of these matters had been made to Dr. Grieve, but had been disregarded. The complainants had made no complaints to Mr. Wyatt (the chairman of the Hospital Committee) and the other gentlemen who came to the Hospital, for Dr. Grieve was the complainants' superior, and to him they looked for a remedy.

The first witness called was James Henry Wills, of Dorset-place, Pall-mall, described as a clerk. He stated—I was ill with the small-pox, and was taken to the Hampstead Hospital on February 28 last. At first, at the Hospital, they would insist upon calling me "Wells" instead of Wills. When I was taken in I was run in on a trolly, in my own shirt and guernsey, instead of having Hospital clothes. Soon after my admittance I was tied down in the iron bedstead, and I have the marks on my ankle now where I was tied down. The persons who tied me down were a convalescent patient, who was acting as a nurse, and a nurse, a paid one, who gave me an "extra screw," which extra screw, I believe, caused the mark on my ankle. The nurse who gave me the "extra screw" was a day nurse, for the night nurse would not have been able to do it, she being old and generally "screwy." I suppose the nurse came to give me the "extra screw" because I got loose; but that is as far as my memory serves me, for I was rather delirious at

the time. I don't remember how long I was tied down. It may have been for twenty-four or forty-eight hours for all I know. I think sheets were used in tying down, and I never saw anything else used for this purpose. I think Dr. Greaves untied me, and he said he did not agree with the tying down. After being thus tied down, I was in a most fearful state, for I had not been moved, and then I was changed. I was not washed, but my things changed; Hospital clothes were served to me. I was wiped, not washed, and put in the bed. I saw several persons tied down while in the ward—during four or six weeks. There were only two nurses in this (No. 9) ward, but I have seen convalescent patients acting as assistants. After I had been in No. 9 Ward for some time, I had an attack of erysipelas, and I was transferred from No. 9 to No. 12, which was a fever ward. There the nurse used to lower the gas, bid us "good night," and we had no attendance all night, except that someone used to come in to keep the fire going. One night a poor fellow was taken very ill, and I got one of the patients who could get up to go off for assistance, but he was gone a long time, and I had to sit up in bed and see the man die. This must have been about the beginning of April, and the hour was between twelve and one o'clock in the morning. About five minutes after the man was dead, the patient whom I had sent to obtain assistance came back, and the Sister Frances came ten minutes afterwards. She asked my brother patient to assist her to lay the body out; but it was in such an offensive condition that he refused. The body was not removed until five o'clock in the morning. I cannot give the name or date. I do not know the name of the patient who refused to lay out the body.

The Commissioner said it was rather a vague charge for the Hospital authorities to answer, for there was no name or date.

The witness's evidence was then read over, and he added to his former evidence that the food-cooking in the Hospital was vile, and the food "not fit for paupers."

Questioned by the Commissioner presiding, the witness said that he was never kept the whole night without drink, but he could not get it so often as he wished. Sometimes they were kept two or three hours without drink. In answer to other questions, he said he had what was called boiled mutton handed to him on an ice-cold plate, and potatoes not fit for a pig.

The Commissioner requested the witness not to give his evidence sensationally, but to state the facts as they were.

The witness allowed that the potatoes were not all bad, and he knew this, as being engaged at Covent-garden Market he knew good potatoes, and the quality of the potatoes was better than that of the meat. The bread was good, but insufficient in quantity. The nurses used to obtain some "youngsters" from the convalescent wards to help, but they used to be youngsters, for the old ones would not come.

Questioned by Dr. Buchanan, the witness said, in addition to the nurses he had mentioned, there were the Sisters. The night nurse, when she went away on the night when the man died, directed his attention to that man's bed, and said she did not think he would last out the night.

Cross-examined by Mr. Hammond, the witness said:—I had no Medical attendant when I was taken ill with the small-pox, but I was sent to the Hospital on an order of the relieving officer of the Strand Union. Mr. Greaves was the Medical officer of the ward I was in, and I might have mentioned some complaints to him. I know Dr. Grieve, too, and saw him often, but I did not mention to him anything about these things. I knew the position he held from others, but still I did not tell him either before or since I have left the Hospital. I should be surprised to hear that Sister Frances is the matron, but I never complained to her or to anyone. The day nurse went out of No. 9 Ward about nine or ten o'clock, and then the gas was lowered. Mr. Greaves used to come round after that to see that all was well. In the fever ward we seldom had more than one Medical attendant in the twenty-four hours. I don't know the name of the nurse in the fever ward, but she told me that she came from the Fever Hospital in the Liverpool-road. She certainly told me that the man would not live till morning, and in the morning she said, "There, you know I told you I thought he would not live." She, of course, would not come in the night, for she was in bed. I said nothing to her about what she had said. I adhere to the statement that it was Sister Frances who came into the room when the man died. I have sworn to it. (Question repeated.) I have sworn to it. I was in the Hospital two months to a day.

In the course of his further examination by Dr. Buchanan, the witness said the erysipelas he had was not in his leg and ankle to cause the marks of which he complained, and which he attributed to being tied down. He allowed that he had since been under treatment at Charing-cross Hospital, and that his ankle was now swollen beyond its normal state. There was also a numbness in his legs. He believed he was lamed for life, but he had had no Medical opinion upon this. He had been in communication with a patient living in Wellington-street, Strand.

The next witness was a publican's assistant, named John Hunter. He was taken into the Hospital, being ill with small-pox, on March 16, and was discharged on April 27. He deposed that he was tied down with sheets "all over his body, wound round and round;" that he saw many other patients tied down. He said: "I could not see the manner adopted in tying the patients down, because I could not leave my bed. The convalescent patients usually tied the others down. I saw a man named Gee, an officer, tie a patient down. There were two day nurses and one night nurse in charge of the ward, but the latter was assisted by a convalescent patient. I might have heard half-a-dozen patients complain of being tied down. They complained to the other patients, to one another. The nurses were at times in the room when patients were tied down, and sometimes not. In the latter cases the convalescent patients tied them down in the absence of the nurses. It was the men who came from the convalescent ward to assist the night nurse who usually tied the patients down. Sometimes the patients remained tied down for forty-eight hours; sometimes longer. I never saw Mr. Greaves untie any patients. I don't know whether the tying of the patients was ever loosened. I know that they remained in the same position until they were untied.

The witness made the same complaints of want of milk and food which the previous witness had made, and went into nearly the same details, and he held that the meat supplied was unfit for sick men. Then, too, he said, he had seen a boy in the Hospital with scurvy in the hands, and he had seen the maggots crawling out of the sores on the boy's hands. He had also seen patients with their heads covered with vermin.

This witness said he never complained to Dr. Grieve about the food. He once did complain to him about some stamps, and Dr. Grieve made a note of it. He said that after he went into the Hospital he was informed that he was there as a pauper, and, therefore, he thought it of no use to complain. It was proved that all the patients, of whatever grade, were admitted on relieving officers' orders.

The next witness was Mr. Edwin James Barter, a clerk in the Ottoman Bank. He was received into the Hospital on May 24, and left on June 19. He deposed that he saw several persons tied down, and one in particular, who would get out of bed. He was tied down by a nurse. She said he could have drink by asking for it. The quality of the meat was bad, and the quantity insufficient. He did not complain to the officials, for it was no use to complain. When he first went into the Hospital he was put into sheets which had been slept in before. "They were not changed all the time I was there, and I saw a patient get into the sheets I left." There were only four or five towels for the use of 113 patients. They were changed every day. The water the patients washed in was thrown into the bath. Those who wanted to have a bath had to ladle it out and so clear it. "The bath-room was used for dirty linen, and the stench was fearful." In cross-examination by Mr. Hammond, this witness said he had stopped in the Hospital for some days longer after he had been pronounced fit to go out, and had thanked Dr. Grieve for permitting him to do so.

The next witness was Thomas Hatcher, a waiter. This witness deposed to the tying down of patients. When convalescent he had acted as cook. He deposed to the toughness of the meat—"It took the edge off the knife in four strokes." He described the insufficient washing accommodation: one sink, with three bowls, for eighty-four people; two or three towels, changed only once a week, and full of vermin. This patient, in cross-examination, stated that a short distance off there was another lavatory, to which the patients might have gone. He had not complained to Dr. Grieve. Dr. Grieve had permitted him to stop longer than was necessary, at his request, and he was very much obliged to him for it.

Before adjourning, Mr. Henley said that he and his colleague had received authority to inquire respecting the missing child, and that matter would be taken after these charges had been dealt with.

The inquiry was adjourned until Friday, September 22.

SECOND DAY.

Mr. Montague Williams appeared for the Asylums Board, Mr. Bucknill for the three Assistant Medical Officers.

The first witness was Onario Grandy, a market gardener's porter. He deposed to seeing patients tied down, when—

Mr. M. Williams rose and said the managers did not at all deny that persons who were delirious were tied down, and the only question to be raised was—though he did not wish to narrow the inquiry—whether persons had been improperly tied down, or had been injured by being thus restrained.

This witness spoke of the milk and beef-tea being short in the night and the beef being hard. In answer to the Chief Commissioner, he said: I have seen my ward without nurses at all, the night nurse having gone off before the others came on. This has happened on several occasions, and I have heard the patients calling out for the nurse. The ward has thus been left for as long as half an hour, which was about the outside time. The night nurse went off duty about eight o'clock in the morning. Regarding the sheets, within an hour after I first got up my bed was filled by another patient without the sheets being changed. I had slept in it for eight days without a change of sheets. After I had been up for an hour I wanted to lie down again, and Nurse Sullivan told me to lie down outside another patient's bed, he not being in it, and she would find me another to sleep in. Just before she left duty she went to the convalescent ward and found it was full; but she said, "There's a patient who won't last above half an hour, and you may have his bed." The patient only "lasted" about a quarter of an hour. The body, bed, sheets, and pillow were taken away, and sheets quite wet were brought me. The nurse told me not to get into them without airing them, and doing this took me until about two in the morning, for they wanted drying, and not airing. I only had one fire to dry them by, and it took me from nine at night to do this. The next day my bed was filled again, and I was sent into the convalescent ward, No. 4, where I got into a bed which a patient had left. My bed was a few feet from a closet door, and there was a great smell from the closet being out of order. (A plan of the Hospital was produced, and the witness pointed out the position he occupied in No. 4 ward). He continued: The bed I went into was the same another had got out of. The sheets were certainly dirty from use, nothing more—nothing offensive about them, except before I left I found vermin on me. On the bottom sheet of the bed in which I was first put there were small stains of blood. In the double ward there were eighty-four or eighty-eight patients, and there were two jack-towels for the whole, and there were so many vermin on them that I could not use them. Several of us complained to Mr. Gee, the wardsman, who asked what we "could expect where there was sickness." I never had a bath because I was sore with boils. I heard there was no bath in the ward. A bath was put in some days before I left. He also deposed to hearing the Medical superintendent order one obstreperous patient to be tied down.

This witness was cross-examined by Mr. Montague Williams, but nothing fresh was elicited. He said he had been in communication with Mr. Kynaston, and had met him at Mr. Hunter's, a beershop in Wellington-street, Strand (the patient previously examined), and that Mr. Kynaston had taken down what he had to say.

The other witnesses examined on Friday were—Charles M'Laren, bricklayer; Ross Smith, photographer; Frank Barrett, pianoforte-maker; and a woman named Grainger. M'Laren deposed to the bad quality of the beef, to seeing people tied down when delirious, to the fact that the towels had vermin on them, and to the bad state of the water-closet and bath. He said he had made no complaint to the visiters or to anyone else. He said he had plenty of bread in the Hospital, and that he could not complain of the treatment of his child, who had died in the Hospital of small-pox. Ross Smith stated that he saw persons tied down when delirious. He did not complain of the quantity or quality of the milk, beef-tea, or food while in the sick ward No. 11; but he said that he was twice ordered poultices, which he did not have, nor did he have whisky Mr. Greaves had ordered him. In the convalescent ward the meat was unfit for food; but he did not complain, because he was told by the wardsman that while he was there he was only a pauper. When he was convalescent he had to work and assist.

Examined by Dr. Buchanan, he said the patients got what they wanted to drink in the night. The Sisters came round at night at irregular hours.

Frank Barrett gave similar evidence as to the tying down of patients, the bad food, and dirty linen. He stated that a petition was got up among twenty-nine patients to Dr. Grieve, complaining of various matters, and that immediately the grievances were redressed, in the way of the tea and coffee being vastly improved, the dinners better, and other matters seen to. He also deposed to the dirty condition of towels, and the presence of vermin on some patients and on towels.

In cross-examination he said he was permitted by Dr. Grieve to stay beyond his time. When convalescent he had acted as assistant in the receiving-ward, and had seen many come in a very filthy condition, both as regards vermin and clothing. About thirty a day were admitted, and there were 400 or 500 patients in the Hospital.

The woman Grainger deposed to a dead body lying all night in one of the wards at Hampstead, and complained of the treatment of an epileptic and idiotic girl by one of the nurses, who had called her a dirty beast, and pushed her about.

The Court then adjourned until the next day.

Third Day.

On Saturday, the mother of the idiotic girl (Letitia Gibbs) referred to by the last witness was examined. She deposed to having found vermin in her child's head after leaving the Hospital. She saw Dr. Grieve in reference to the treatment her daughter had received. Dr. Grieve instituted an investigation into the charges, which, after hearing both sides, he said he did not believe.

The sister of the girl, who had been in the Hospital with her, deposed to having seen a nurse strike her idiotic sister with a towel. She did not complain to Sister Frances of the way in which her sister was treated.

The next case investigated was that of the child of James Stokes, a music agent, a little girl of 7 years. The child's father said when the child went in she was a fine fleshy little girl. She was in the Hospital forty-six days. Mr. Charles Watkin, a Surgeon, knew her before she went into the Hospital. Witness continued: I inquired for her every day at the Hospital, and she was reported to have the small-pox sharply for the fortnight, then better for three days, and then weakly until June 20, when we brought her out. I went on that day, accompanied by my wife and brother-in-law. I had written inquiring about the child, and I received an answer, signed by Sister Agnes, saying that the child was very bad, but by the aid of God it would recover. On the day I went to fetch my child she was brought out in a blanket, doubled up. My brother-in-law lifted the blanket from the face of the child and failed to recognise her as my child; but I did. The child had a swelling over the eye, and a poultice on. I asked what was the matter, and the nurse said she thought that the clothes would never be put on the child again. The Sister said the child had been very bad, and had had sores, which had been treated with cold water dressings. The eye, the Sister said, would come all right if the poulticing were continued. The child was not dressed, but she was given to us in the blanket and a dirty nightgown, with her head full of vermin. The child was a mere bag of bones when she was given to me. She did not have vermin in her head before she went, and since she has been out she has not walked. The child had the right leg twisted inward, and the left leg was curled over it and contracted. The left arm was twisted behind the back, and I had trouble in extricating it. The nails of the left hand, which were very long, look petrified, for she had so placed her hand under her legs that what had passed from her had gone over the hand and nails. She had sores on her body. A large one was at the bottom of her back, one large one on each hip, also on the ankles and legs. We sent for a Surgeon, Mr. Watkin, and a fortnight after she left Hampstead she was sent to Charing-cross Hospital, where she has been ever since, eleven weeks to-day.

In cross-examination it was elicited that the particulars of this case had been published in the *Echo*, and that Mr. Aikman, one of the three complaining Medical Officers, had sworn before Sir Thomas Henry that the child had every care and attention, that she was in a reduced state when she went into the Hospital, that everything had been done to save her sight, and that she had had water-pillows.

Mr. Charles S. Watkin, a Surgeon, of King William-street, Strand, was then called, and he corroborated the previous witness as to the condition of the child when she was brought to her father's house. He thought the condition of the child might be caused by inadequate nursing or want of food. He would leave the "might" out, and say he thought it was likely that the emaciated condition of the child was owing to want of food. If the child had been properly nursed, means might have been taken to prevent the knees coming into contact, and so the sores there have been prevented. Asked regarding the number of nurses he should think necessary for a ward containing forty-eight children suffering from small-pox, he said, after much consideration, not less than six for the day for

merely attending on the patients. Half that number would suffice for the night. The witness said he had not been particularly connected with Hospitals, but he had once been House-Surgeon, and had not been a small-pox Hospital Medical officer. He went on to say that six day-nurses would be required for a ward with thirty-four adult patients. He considered that strait-waistcoats and tying down of delirious patients were to be avoided, if possible. These should be the last resource. It was the duty of the nurse in the Hospital to try and straighten the limbs of the child.

By Dr. Buchanan: The nature of the small-pox in the child was, I thought, severe. I saw the child on the day following the appearance of the eruption, and one cannot say, at such a time, whether a case is or is not going to be severe. When I saw the child on her return, the whole eye seemed to be suppurated—that is, there was matter in the eyeball. I have seen in the course of my practice the limbs drawn up, both in children and adults. I have not seen them after fevers or diseases of that kind. Where I have seen these contractions they have commenced during my attendance, but I have not attributed them to bad nursing, and certainly not to bad Medical treatment. We know contractions will occur, but they may be ameliorated. I have never visited any other small-pox Hospital that I recollect, except a small village temporary Hospital attached to a workhouse or a union. It is my opinion that children would require fewer nurses than adults.

Questioned by Mr. Williams, the witness denied the truth of what Mr. Aikman had sworn regarding the appearance of the child when it went to the Hospital as "having been ill for some time prior to admission, and altogether in a very reduced condition."

Dr. Charles Chittenden said he was, until lately, the House-Physician to the Charing-cross Hospital, and was now a Surgeon in the Royal Navy. He spoke of seeing the child when it came out of the Hospital, of its emaciated condition, and of the contraction of the limbs as spoken to before, as well as of the sores. The sores on the knees could not occur, he said, without gross negligence on the part of the nurses. The sloughing in the eye was sometimes due to small-pox; but in this case he thought it was from malnutrition. The emaciated condition might arise from one of three causes—from want of food, or because the food did not assimilate in the stomach, or from the loss by the sores. The child lost five ounces of blood on the Sunday after it was brought home, and it was then not fit to have left the Hospital. It was not admitted to Charing-cross Hospital at once for want of room for one thing, and for another the fear of contagion. He had been connected with the Charing-cross Hospital for twelve months, and he had other Hospital experience. He thought the ward with forty-eight children at Hampstead should have had seven nurses, including the Sister, and at night about one nurse to twelve patients. In a case of thirty-four adults in an acute ward, one nurse to six or seven patients would be required of a day, and about one in twelve at night. These nurses were required, he said, altogether, for attending on the patients, scrubbers apart. He visited the Hampstead Hospital about June, and he was struck with the insufficiency of nurses to attend to one large ward where Mr. Aikman was, and Mr. Aikman told him that the one nurse and the one Sister attended to the forty patients in the ward. In his opinion, no person should be tied down, and no strait-jacket should be used without the order of a Medical man. It was not proper to tie a person down with sheets in the form of a rope, and the effect would be probably to leave marks. In small-pox it would be improper to tie down when the patient was in delirium, because tying down would be likely to cause sloughing from the eruption. The tying down would relieve the nurses of duty.

By Dr. Buchanan: To confine the legs of delirious patients I would tie a sheet of jean with laces so as to prevent their legs moving about, and these laces would be tied to the bedstead. This is a special apparatus designed for the purpose. The objection to the use of a bed-sheet is that it was twisted as a rope and would be likely to cut. Children, in my opinion, require more nurses than adults, other conditions being alike.

From his further answers to the Medical Commissioner, it appeared that the witness held that it would not be the duty of the Medical man to look after bedsores, especially if he had much to do, but would leave that duty to the nurse, especially in the case of an unconscious patient.

Cross-examined by Mr. Williams, the witness said he went to see Mr. Aikman when that gentleman was Medical assistant at Hampstead, as a friend, and took the statements made by him regarding the number of nurses there as being true, and made on his word of honour. He should believe Mr. Aikman's word, but if Mr. Aikman had sworn that every possible care had been taken of the child while at Hampstead (the affidavit read to this effect) he should not believe him on oath. He thought the child should not have been removed, and it certainly was not in a fit condition to be removed. If Mr. Aikman had sworn it was in a fit condition—well, it was a matter of opinion. He thought the child had not had proper food and nursing, but if Mr. Aikman had sworn that everything was done that could be done, he would believe it was done. He thought 100 patients too many for one Medical man to attend to. He would not set his opinion against Mr. Aikman's oath that everything which could be devised had been done for the child, and he applied that to all his statements. He further stated that he had been a qualified Practitioner for one year, that though he had described himself of the Royal Navy his commission as Assistant-Surgeon would not be signed before the 1st proximo, and that he had had no experience of any small-pox Hospital beyond what he had gained by the visit to see his friend Mr. Aikman.

Re-examined by Mr. Collins, the witness said that Mr. Aikman told him there were 136 beds under his attention, and this was far too great a number, for University College Hospital had only 30 beds to each Medical officer.

By Dr. Buchanan: I know that University College is a large Medical school with a small Hospital, and I know that there are not sufficient appointments for all the students, and on this account the number of beds to each officer is made as small as possible. I know that the Medical men in charge may employ themselves otherwise—in teaching students—to occupy their time. Hampstead is not comparable in these respects with University College or any Hospital I know. I have no special knowledge of small-pox or fever Hospitals.

By the Chief Commissioner: I have never been in any small-pox Hospital beyond visiting Hampstead.

The case was then adjourned until Monday.

Fourth Day.

The witnesses examined on Monday were—John Channon, a gold and silver plater; the Rev. H. M. Turton, the chaplain; Thomas Owen, a butcher; and Albert Emerson Denton, clerk to a solicitor. Channon, Owen, and Denton had been patients in the Hospital. The first deposed to the fact of the nurses tying down delirious patients at night, to the badness of the food, and to the difficulty of getting a bath. He said that by seven o'clock the towels were as full of vermin as they could be, and that he and another patient used to get up at half-past five to have the first wash. He saw strait-waistcoats put on patients twice.

The Rev. M. Turton said that he had seen a strait-jacket used, and twice had seen patients tied down. He said many complaints of badness of food, of vermin in the towels, etc., had been made to him, but he always recommended the patients to go to the Medical Superintendent. Owen, the butcher, deposed to the insufficiency and badness of the food, and dirtiness of the linen.

Mr. Denton said he had seen several patients tied down with twisted sheets. He had tied down some himself, under the direction of a nurse. He gave strong evidence as to the filthy state of the linen and the clothes given to convalescents. He said the patients did not have the stimulants ordered by the Medical men, and they did not complain for fear of being "served out" in some way by the nurse. "One patient had complained, and the nurse got the stimulant struck off altogether, for she told the Doctor that the patient did not require it." He gave instances of neglect. One patient, who died, was ordered eight ounces of whisky and four eggs daily five or six days before he died; the stimulant was only obtained twice. He was ordered poultices in the morning, and did not have them until the evening.

At the conclusion of the day's proceedings, Mr. Williams asked the opposite side to say to what length they were going to bring evidence about such undisputed points as the tying down of delirious patients, and said that the managers were anxious to go into the whole question of their management as early as possible.

Mr. Collins said that he could not answer the question, as his side were desirous of showing the extent to which this had been done.

The inquiry was then adjourned until Tuesday.

Fifth Day.

On Tuesday, the witnesses examined were—Michael Croake a lad of 15; George Donaldson, an apprentice to a printer William Charles Peters, a wine and commission agent;

Thomas Johnstone, a machine-maker; and Elizabeth Haynes, who had been first a patient, and afterwards a nurse in the Hospital. The first-named witness deposed to having been tied down, and to having seen others tied down; to having wanted milk, and having asked "until it was of no use of asking;" to having been denied a bath when he was filthy and had vermin on him, and to having been intimidated by the nurses.

Donaldson gave confirmatory evidence. "It appeared to him that the patients were handled very roughly, and they were tied down by the nurses' orders." The sheets he was put in at first were dirty, and looked as if they had been used before. One was changed after five days, but the other was not changed at all. When he was changed to another ward he was again put in dirty sheets, and he slept between the blankets because of the dirty sheets. The towels of No. 4 were dirty and covered with vermin. There were two towels for eighty or ninety patients, and these two were not changed while he was there. The bath was full of dirty stinking water, and he neither bathed nor washed while he was in the convalescent ward nor in Ward 10. While he was in No. 10 Ward a patient died four beds from him at five o'clock in the morning, and was not removed until ten. A nurse was there at the time, and put a screen round the bed where the dead body was five minutes before his death. He did not ask to be washed, for other patients were not washed, and he thought there was no convenience for washing. He often heard complaints, mostly of a day, as to not getting milk, but sometimes they got it. He got only about three ounces of meat. The Medical gentlemen used to come round twice a day—once in the morning, and he used to look in for about ten minutes at night. Dr. Grieve used to come in at times. He remembered the night before the man died, and he was certain the Medical officer, Mr. Grey, visited the man. The body was removed before the Doctor came in the morning, but no one visited the man between the Doctor's night visit and his death.

The witness Peters gave evidence as to the inferior quality and insufficient quantity of food supplied. The milk, to his taste, was good; but the beef-tea he could not "make out," and he was told it was Liebig's, which might account for its bad taste. The Sister of his ward had cut down the food-supply. A boy had died in his ward in the early morning, and his body, which was in an offensive condition, had not been removed until the next day. When he was sent into the convalescent ward, the bed allotted to him was in such a disgusting condition, from the sheets being defiled with "gore, matter, and lice," that he preferred walking about all night to sleeping in it.

Johnstone gave similar evidence. He had known a patient drink his medicine, because he could not get anything else to allay thirst. He deposed to the insufficiency and badness of the food, and to the vermin and filth.

Elizabeth Haynes said: During the seven weeks witness was nurse she was often short of milk, and then she mixed water with her supply—very often half as much water as milk. The patients often complained. She then went as under day nurse to the children's ward, and was under Sister Clara and nurse Dick. There were forty-nine patients in the ward, and the three could not properly manage the forty-nine patients, for the children were neglected, and some of them were often tied in the beds. The nurses had to scrub the wards themselves, and as the nurses had to scrub the wards they tied the children down instead of giving them drink. They tied the children down instead of attending upon them because they got out of bed, but these were not always delirious. A child named Ricketts was reported convalescent on Saturday and was dead on Wednesday. Six weeks after the mother came to see another child, and was told that the dead one was sent to Islington. The mother went there, and when she came back said that at Islington they told her the child was sent from there to the workhouse. She remembered a child named Sarah Smith, whom she took out to play one afternoon at four o'clock by the order of Sister Agnes, and the child died at twelve o'clock the same night, and the corpse was in the ward the next morning, and was removed at eleven.

A conversation arose upon the subject of how this case came within the seven charges, and Mr. Collins said he would show that it dealt with the charge of the shortness of nurses.

The witness went on to say that she knew a child who had a bath one morning and was put back to bed, and on next being seen the child was dead. Mr. Aikman once found a dead child in bed, but the child had been seen by witness ten minutes before, when she saw it die. She went on to speak of further experiences in other wards, which were somewhat of like character, and she declared that there were not sufficient nurses and milk.

The inquiry was again adjourned.

Sixth Day.

At the opening of the Court on Wednesday, the further examination of the witness Haynes was postponed, as she was not present.

Mr. John Aikman, one of the late Assistant Medical Officers of Hampstead, was then sworn. He described himself as a Master of Surgery and Bachelor of Medicine of Glasgow. He had acted as House-Surgeon and House-Physician in the Glasgow Royal Maternity Hospital and the Royal Infirmary, in each six months respectively. He proceeded to say (examined by Mr. Collins): When in Glasgow I saw about 300 cases of small-pox, and more than 2000 cases of fever passed through my hands while in Glasgow Royal Infirmary. In April last I applied to Dr. Grieve for the position of Assistant Medical Officer, and was engaged. After relating some conversation with Dr. Grieve, which showed that differences existed between him and the Assistant Medical Officers, he said: There were eleven large wards and two isolated (fever) wards. I was given in charge No. 3 (the female) Ward, in which there were thirty-four patients, No. 7 (children's) Ward, in which there were fifty-six beds, and a fever ward (isolated), No. 12 (male), in which there were six beds. These were the numbers when I first went, though the wards were changed afterwards. I was told that I had charge of these patients, and was to attend to them Medically, which I did. Instructions were all given to me verbally by Dr. Grieve, and I never saw written or printed instructions. I frequently saw children tied down in their beds. I really could not say what number; almost innumerable, I should say. I saw this from the very first, and they were delirious more or less. They were tied down with sheets by the nurses, I believe; but never, on a single occasion, did I give orders for this to be done. In my judgment, this is not a proper treatment. The ages of the children in the Hospital varied from a few days to 12 years. I either myself untied the children I saw thus tied, or ordered the nurse to untie them. That did not stop the practice, for though I did not find them tied so frequently I still found some. I remember, during my first fortnight at the Hospital, untying four on one evening visit. They were tied in various ways, sometimes with the sheet over the body, at other times with the sheet drawn under the bed, and tied over the child's body and arms, and at other times the sheet was passed merely over the chest. I think four is the greatest number at one visit that I untied. The general condition of these tied children was, before the crisis, restless, and they would tumble out of bed. To the ward of fifty-six children there were by day a Sister Agnes, a nurse named Simpson, and a convalescent patient as helper, and they had the ward work to do as well as the nursing. I believe the convalescent was a paid nurse. At night there was one nurse. The Sister went round with me on my morning visit, and was responsible for giving the medicine and stimulants. I never saw strait-jackets used in that ward. Regarding the milk given to children, the milk I know was scarce in the ward. Sometimes there was none in the ward, sometimes a few pints, and sometimes more. I found none about four times, and very frequently there was an insufficient quantity. Complaints were often made to me by the nurses; it was a general thing to hear complaints about this. I mentioned to Dr. Grieve frequently about the tying down. I used to see Dr. Grieve with the other Medical officers every morning at a quarter to ten o'clock, for the purpose of telling him about the wards and hearing his instructions. When I told Dr. Grieve he promised me an extra nurse for No. 7 Ward, and also for No. 6 Ward, also a children's ward, which was added to my duties afterwards. I never got the extra nurse. I used, at first, to order extra quantities of beef-tea and milk for the patients, and initialed the order. I used thus to order so many pints for that particular night, and Dr. Grieve told us there must be no "extras" ordered. This was when a new dietary came into working—June 18. He would not recognise these orders after June 18. We complained of insufficient quantities of things by writing an order for more, and then, when spoken to by Dr. Grieve, we said we had ordered them because there were none. He used to say that there were sufficient; but that they had been injudiciously given by the nurses. The children's diet was short. It would have been very difficult to have made a regular diet for the children, owing to their varying ages. About the 18th Dr. Grieve told us we had been ordering among us eighty or ninety pints of milk a night, and that it could not go on. We told

him we were obliged to do it, as there was nothing in the wards of a night, and would not be unless some alterations were made in the diet. He said that the diet was perfectly sufficient, and it would not be altered. Mr. Kynaston then said that if the dietary—the milk principally—were doubled, the mortality would be halved. I cannot say what occurred after in conversation, but there were high words, and two hours after the change in the diet was made. I can say that the mortality was very high in the week before June 18, for I saw it was seventy-one in the *Times*. [This was afterwards shown to be the mortality for two weeks. The number who died in that week was forty-six.] In No. 3 Ward there were thirty-four patients, with, as day nurses, Sister Caroline and Catherine Jenkins, and no assistance except from convalescent patients. I have seen the strait-waistcoat used as well. Sometimes a sheet was used to a strait-waistcoated patient, as it was necessary usually to restrain the feet as well as the body and hands. The strait-waistcoat was properly put on, and the hands were properly fastened; but there should have been an apparatus for the purpose of fastening the feet. I used to release the patients thus restrained, and told the nurse, Sister Caroline, that they should not be thus put under restraint. On May 31 I took a strait-waistcoat off a girl named Mackey, and told the girl Haynes (the witness of the previous day), who was then acting as night nurse, that it would increase the delirium. I told Dr. Grieve of it the next morning, and he said he was perfectly aware that it should not be done without our orders, and that was the correct view. I found other cases, and when I spoke to the nurses they said they could not get on without it. Sometimes it was utterly impossible to conduct the ward properly with the number of nurses. I told Dr. Grieve so; but I did on one particular day tell Dr. Grieve that in the then condition of the ward, which had a reduced number of patients, the nurses and assistance were sufficient. On making complaint once of insufficient nurses, I got one asssistant, Nurse Fisk being sent, and that was for a special case. In No. 3 Ward I used frequently to find an insufficient supply of milk—that is, up to June 18, under the first diet table. Sometimes there used to be almost none, at others at most a few pints. There was usually more beef-tea than milk. The nurses used to complain to me very frequently of the short supply of milk—I have seen the short supply every night in succession for nearly a week. I also complained to Dr. Grieve about this ward up to June 18, when Dr. Grieve told us—the three of us, Assistant Medical Officers—that our power of ordering food was gone, and that the nurse must make all complaints for the future. I think a supply of milk was essential to the patients' treatment, and was better than the beef-tea. The milk was not very good; sometimes it was sour or "on the turn," and at other times it had been scalded, which gave it an unpleasant taste. The milk was poor, too, and it was at night that I found it more particularly sour, though I sometimes found it curdled in the morning. This was in June and July, especially in the very hot weather, and it then occurred almost daily. The beef-tea was such that I could not have taken it, and I don't think it was proper beef-tea for patients suffering from small-pox. It was fearfully salt, and had a really abominable taste. The patients said they could not drink it. The patients complained of the beef-tea the whole time I was there, but I only tasted it once. I believe it was made from an "extract" of beef. I remember asking Mr. Kynaston to look after the ward in my absence. Mr. Kynaston told me, and told Dr. Grieve, if I remember correctly, something about the children's ward, and Dr. Grieve replied that he had no right to be in the wards, that his being there was interfering. This was in reference to Mr. Kynaston going round the wards after I had made my evening visit, and it occurred after Mr. Kynaston had made a complaint regarding the nurses. This was in July, the middle or end of the month. Dr. Grieve used to take the duty of discharging patients, he seeing those who were going straight away to their homes (not to a convalescent Hospital); he took the duty of deciding if a case was small-pox, and he also took the charge of everything in the wards except the Medical treatment of the patients. This was during the main part of the time; but an alteration was made in these duties just before we left—some ten days. I mean by "Medical treatment" visiting and prescribing for patients, and the ordering of stimulants under reserve, for Dr. Grieve took the right of refusing stimulants. We had the ordering of low and ordinary diet—this was part of the Medical treatment; but I had no power of ordering full diet, for there was no such thing in the acute part of the Hospital; that was what Dr. Grieve told me. There was only one "extra"—eggs—as far as I know, and we had great trouble in getting them. Dr. Grieve said he would not sanction an order for eggs unless he saw the patients for whom they were ordered. When he made that rule I went to the Board-room and told him I could never submit to such a rule, as I considered it an insult to my University, and resigned on the spot. In the course of a long conversation he consented to forego the rule to a certain extent—that is, that he was to countersign the orders—and I withdrew the resignation. During the last ten or twelve days we were there, Dr. Grieve took the Medical charge of the patients completely out of our hands. With reference to charge 4 in the *Times*, that on making the visit we had been informed by the nurse in charge that the patients of the ward had been without food from seven a.m. until three p.m., that referred to Ward No. 1 (acute), and I heard a complaint to that effect from nurse Meredith, who distinctly said in July that the Ward was without food from 7 o'clock a.m. till 3 o'clock p.m., and that the meat for the convalescents was so bad that she had not served it out. I often saw the meat served up in the isolated ward to the adult patients, and I can say that meat was coarse, and on more than one occasion when I saw it it was distinctly decomposing. This was in the beginning of July, and once a patient kept a piece and showed it to me. On July 10 I visited Ward 7, when Nurse Simpson was off duty. No nurse was there, and I saw a child about 6 or 7 years old lying across its bed, with its head over one side, and its legs over the other, and the bed-clothes thrown off. I found the child to be dead. There was not an adult person in the ward at all at the time, only the children-patients and myself. No one came in for ten or fifteen minutes. The child had certainly been dead more than a few minutes when I first saw it. Nurse Simpson when she came in did not know of the death, and I told her it was the most disgraceful thing I had seen in an Hospital in my life. She said she could not possibly help it, for Sister Agnes was off duty, and she had herself to go for the dinners. At that time there were at least forty children in the ward. I went straight to Dr. Grieve and reported to him what I had seen and said. He replied that he would attend to it and see the nurse, and he was then on a visit through the wards.

The witness, in answer to Dr. Buchanan, said that the position in which the child was found might have hastened death. He was examined as to the truth of the allegation that an offensive corpse was left in the bath-room. He said Mr. Greaves took me to see the dead body, which was that of a man who had died with the small-pox, and it was in a fearful state. It was shown to me naked, and I saw it was covered with an eruption, which was still moist, and the stench from it was horrible—it could be felt all the way from the bath-room through a long passage. The body was lying on the ground without anything between it and the ground, unless there was a sheet or mat under it, and it was naked under the sheet when I saw it. It was not a fit thing that the body should have remained where it was a moment longer than was absolutely necessary. The offensiveness was, I think, due to the small-pox itself, and the disease must have been offensive when the man was alive.

The examination of the witness was continued to still greater length, and he deposed to the dirty condition of the sheets, which, he said, were not changed often enough. He then spoke of the condition of the children's heads, and said that he had given instructions to have the "crusts" in their heads anointed with carbolic acid and oil, and he gave a particular case in which a child, who died, was terribly afflicted with maggots in the head, through, he believed, this anointing not being done at an earlier date than it was. The vermin in the children's heads, he said, were brought into the Hospital by the patients. The nurses, he said, could not attend to all the patients, and he gave his orders verbally for things to be done.

In answer to Dr. Buchanan, he acknowledged that the nurse had not neglected any obvious duty. He was asked why he did not stop and see his verbal order carried out as to putting on carbolic acid and oil, and he said that the nurse (Sister Agnes), when he spoke to her on his morning visits, said she had not time.

Seventh Day.

On Thursday Mr. Aikman was recalled and, examined by Mr. Collins, said: In such an Hospital as Hampstead provision should certainly have been made for such cases as bedsores. Under the system of the Hospital everything was done that could be done, but the system was not sufficient. He mentioned the particular case of the girl Stokes to Dr. Grieve, and

told him that as the Assistant-Surgeons could not give it sufficient attention it ought to be removed. That was at a comparatively early period of the case, and he recommended that the child, after it was getting better, should be removed to some little country Hospital. He told that to Dr. Grieve every time he saw him in the ward, and at last he consented that the child should be removed. The wards were very full at that time. He believed that Dr. Grieve ordered the child to be removed home. There was a sloughing of the child's eye, which sometimes took place on recovery from small-pox, caused by low condition, in consequence of the cutting off of nourishment. Dr. Grieve, the Medical Superintendent, was perfectly cognisant of the state of the child until it left the Hospital. At this time he (witness) had 136 patients under his charge, all in acute stages of disease. At his morning visits the beds were in such an abominable state in the children's ward that he had to leave them for a time, and to go back to them afterwards. The sheets were not washed, but cleaned by some process. He pointed that out as being one of the great predisposing causes of bedsores. What were called "draw-sheets" were not used, even in cases where he told the nurse or the Sister that they ought to be used. The children's hands in the Hospital were "muffled." He did not like the practice although he had tried it, because he thought it made them rub themselves more. He did not continue the practice. On one evening in June four children tumbled out of bed, being unattended to. He thought the nurse was Blomfield (the lame woman), who had been a patient. On July 20 he found a child nearly dead lying outside its bed. It was suffering from a very severe attack of small-pox, and was about 6 years of age. It had only a nightgown on. He called the attention of the nurse to it, and she said that was nothing, as the child had been out on the floor several times during the night, and she could not help it. The child died during the night. A complaint was made by Mr. Kynaston to Dr. Grieve, the Medical Superintendent, about cording the beds, a patient having fallen out, and Dr. Grieve replied that it was no business of his (Mr. Kynaston's) if the patients dropped out and died on the floor. Mr. Kynaston was at that time the Medical officer of that ward, and Dr. Grieve told him that it was the duty of the nurses to attend to such things. Mr. Kynaston told Dr. Grieve that this state of matters had existed for some days. Dr. Grieve told the Assistant Medical Officers that they had no right to complain about food, or any other matters which were not absolutely Medical. Dr. Grieve generally made light of complaints, and generally said the complaints were beyond his (witness's) province, or were absurd, and that it was the duty of the nurses to report such cases. On one day in August he sent a written remonstrance to Dr. Grieve, that the patients in the children's ward had not received their customary supply of eggs, and that they had thus been deprived of the food on which their existence mainly depended. The remonstrance was returned to him with the word "bosh" written upon it. He reported that a patient was suffering from erysipelas caused by want of eggs, which the steward of the Hospital had refused to supply. That was on June 27. He told Dr. Grieve of that case, and he said the steward was right; but he gave no reason. Eggs were subsequently given, on his remonstrance, but were again suddenly stopped.

[The inquiry was proceeding when we went to press.]

REVIEWS.

De l'Ovariotomie. Par Dr. G. Boddaert. Bruxelles. 1871 8vo. Pp. 16.

On Ovariotomy. By Dr. Boddaert. Brussels. 1871.

La Sedicesima Ovariotomia in Italia. Storia Chirurgica del Professore F. Marzolo. Padova. 1871. 8vo. Pp. 31.

The Sixteenth Ovariotomy in Italy. Surgical History by Professor Marzolo. Padua. 1871.

When we find that the case related by Dr. Boddaert is the first in which ovariotomy has proved successful in Belgium, and Dr. Marzolo tells us that his case is the sixteenth in Italy, and only the third which has proved successful, we are forcibly reminded of the progress which this operation has made here within the last few years, and regard with pride and satisfaction the acknowledged influence of British Surgery upon Continental opinion and practice.

We need say little about the two cases detailed in the pamphlets before us, except that they are extremely creditable to the operators, serious difficulties having been ably overcome, and the patients restored from a very deplorable condition to good health. But, for the credit of London Surgery, we have great pleasure in translating the remarks with which Dr. Boddaert concludes his *brochure*:—

"With regard to the proceedings followed in the operation, they are those which I have seen practised in London by my honoured teacher, Spencer Wells. I have religiously observed in my operation the precepts recommended by this eminent Surgeon, and I have endeavoured to exactly imitate his method of operating. During my visit to London I was present at fourteen ovariotomies, eleven of which were performed by Mr. Spencer Wells. I was able to observe closely the proceedings employed by this remarkable Surgeon; for, besides the operations which he performed at the Samaritan Hospital, at which I was present, Mr. S. Wells also kindly invited me to assist him in some cases in his private practice. Not being able to sufficiently thank Mr. Spencer Wells for the kindness he showed me during my visit to London, I only pay a debt in now publicly expressing my gratitude."

Such "international courtesy"—to use the popular phrase—is far more gratifying than even visits of our volunteers to Brussels or the reception of the Belgian riflemen at Wimbledon.

FOREIGN CORRESPONDENCE.

HOLLAND.

(*From our own Correspondent.*)

Rotterdam, September 19.

Small-pox in Holland.

The following are the official monthly returns for July:—

Towns.	Population Jan. 1, 1871.	Deaths from all causes, with still-born, in 10,000 inhabitants.	Deaths from small-pox.	Deaths from scarlet fever.	Deaths from measles.	Deaths from angina diphtheritica.
Amsterdam .	281803	22·4	299	2	6	—
Rotterdam .	123097	28	14	1	—	—
The Hague .	93083	21	30	—	—	—
Utrecht . .	60587	21	5	—	—	—

In August the small-pox mortality in Amsterdam was 196.

Here I will end my communications on small-pox, because the epidemic is ended in most places. Till now we have not had, that I know, one case of Asiatic cholera.

PROVINCIAL CORRESPONDENCE.

BIRMINGHAM.

September 27.

The New Parochial Dispensary.

I have just had an opportunity of inspecting the arrangements made at the Parish Offices in this town for the Dispensary established by the Guardians and approved by the Local Government Board, for the treatment of the out-door sick poor of the parish. The Dispensary is to be in full operation on September 30, and I cannot speak too highly of the complete and liberal manner in which the Guardians have made preparations for the comfort and convenience of the Medical officers; everything that is required for the proper treatment of the patients is provided for them. Some particulars of what I observed may not be uninteresting to your readers.

A spacious, well-warmed and ventilated waiting-hall is provided, capable of accommodating about sixty persons; from this hall there are entrances into two conveniently situated, well-lighted consulting-rooms, the walls of which are covered with varnished oak paper. There is a couch of original design for the examination of patients, also washstand, table, chairs, etc. There is a nicely fitted, well-lighted store-room, placed, with a view of economising space, between the consulting-rooms. There is a communication with the dispensary from each of these rooms by means of a passage, and also with each consulting-room; so that, in case of a consultation being desired, or a necessity ensuing of seeing the dispenser, there is no necessity of passing the patients waiting in the hall. Another entrance, also from the hall, into the dispensary, permits the patients to obtain the medicines prescribed for them. The dispensary is located in one corner of a large room, and is

similar in design to the ticket-office of a railway station. The open space is provided with benches capable of seating twenty-five persons, for the accommodation of the patients waiting whilst their medicines are being prepared. There are two windows in the partition, one for receiving the prescriptions, and the other for delivering the medicines, a rail being provided at the latter to prevent overcrowding. The shelves of the dispensary are stained and varnished, the tops of the counters being of solid oak. There is a cabinet for keeping poisons, a label-box of almost unique design (a patent, it should be stated, of Mr. Clay's), engraved bottles for keeping acids, percolators, evaporating-pans, elaborate weighing apparatus, and almost every convenience which the science of modern dispensing can require. In the centre of the dispensary there is a cabinet which struck me as being useful for dispensing. A stove, which will allow of seven or eight vessels being used at the same time for the purpose of making infusions, decoctions, and extracts, will likewise afford warmth to the department. On inspecting the stock of drugs, I found that there was an ample supply of everything that might be required, even most of the new and expensive medicines being amongst them. A dispenser has been appointed, who will have the assistance of a porter and a youth from the workhouse.

I understand that two of the District Medical Officers will attend at the Dispensary daily (excepting Sundays) for the purpose of seeing the out-patients; and from the regulations shown to me, I have no hesitation in saying that they are most complete.

The establishment of the Parochial Dispensary must be a great boon to the district Medical officers, who will be thus liberated about fifteen days in the month from attending to the out-patients, except urgent cases. The visiting, etc., of course, will go on as before. They will also be relieved of all dispensing, which generally takes place in the afternoon. This will be an additional relief to them. At a first glance the clerical work seems heavy; but on more careful examination it is not so, but is easily performed, and may be done chiefly in the office whilst seeing the patients. A calculation has been made as compared with the present amount of clerical work, which shows that thirteen days in the year are saved, of ten hours' duration each. A pharmacopœia has been specially prepared, and contains some useful simple formulæ; but, where practicable, the forms of the British Pharmacopœia are adhered to. There is every inducement, therefore, for the district Medical Officers to be satisfied with the new arrangements; and it is hoped that they will do their utmost to carry out the scheme in such a manner as shall make the Guardians and the public satisfied with the new order of things.

The whole of the arrangements have been effected under the advice and instruction of Mr. John Clay, who has been ably assisted by the Clerk to the Guardians, together with the cordial support of the whole body of Guardians. Mr. Clay richly deserves the thanks of the Profession.

GENERAL CORRESPONDENCE.

APPLICATION OF MERCURIAL LOTION TO THE SCALP.

LETTER FROM DR. THOMAS S. DOWSE.

[To the Editor of the Medical Times and Gazette.]

SIR,—One can but agree with the good sound advice embodied in your leader on "Dangerous Therapeutics." It is not, however, such an easy matter to employ remedies on the right patient, at the right time, in the right place, and in the right manner. If these several conditions could always be diagnosed, therapeutics would take a far higher place than they at present occupy in what might be termed the modern treatment of disease. The dissimilarity of opinions respecting the action and properties of medicines tends more to render this branch of our Medical art conflicting than it otherwise would be; and I fear, however perfect our knowledge might become as to the direct action of drugs, we shall never be able to lay down orthodox and absolute rules for our perfect guidance in their administration. The Physician who can so estimate the idiosyncrasy of his patient's nervous system as to say "Opium will (or will not) agree with you," might fairly be called clever; so also might he be who can determine beforehand whether iodide of potassium will produce iodism. But I do not think it requires a *savant* to determine whether a highly concentrated solution of bichloride of mercury might be *freely* applied to the delicate scalp of a young child without expecting serious ulterior consequences. I have often used a solution of similar strength to that published by Dr. Fox, omitting the hydrochloric acid, using equal parts of glycerine and spirit to dissolve the mercury (glycerine dissolves it readily), and I take the same precaution in its application that I would do were I using strong nitric acid. My plan is to free the skin from fatty matter, if need be, by washing with Castile soap and water, thoroughly drying it with a hot cloth, then, by means of a piece of lint tied to the end of a penholder, forming a compact pad, I apply the solution, using firm pressure for a few seconds until it becomes absorbed. I should hope that Dr. Fox would give in the next edition of his valuable little work on "Diseases of the Skin" some instructions as to the manner of applying solution No. 164, especially to infants.

I am, &c., THOMAS S. DOWSE.

Highgate Infirmary, Sept. 23.

AN OVERLOOKED CHAPTER OF THERAPEUTICS.

LETTER FROM DR. F. A. HARTSEN.

[To the Editor of the Medical Times and Gazette.]

SIR,—In almost all eras of history we meet with narrations of recoveries said to be due to supernatural agencies. And the source of those narrations, far from being exhausted, goes on flowing every day. This fact, however unpleasant for many investigators, is undeniable, and requires scientific inquiry.

It would be easy to declare such narrations to be altogether the product of imposture or illusion; but there are some cases in which this manner of proceeding would fail to satisfy even minds of a very sceptic nature.(a)

But, allowing some of the facts narrated to be true, there still arises the question—Is it necessary to appeal to supernatural agencies for their explanation? Some say, "No; for there *are no* supernatural agencies." This, however, is setting aside the question, and not solving it. It is what is called in logic a *petitio principii*, for it is not proved that there are no supernatural agencies, neither is it an axiom.

Now, if a fact of the kind be not supernatural, there is only one explanation for it—namely, that which is based upon the *curative power of the imagination*, or of *lively trust*. And, in order to decide how far this mode of explanation is reasonable or not, we ought to determine in cases of a simple character the limit to which the curative power of the imagination is likely to go. In consequence, we wish to collect a number of morbid cases where recovery was *evidently* due—at least, for the most part—to the effect of *trust*, and afterwards to criticise them and draw our conclusions.

Should any intelligent Medical man have met, in the course of his practice, striking cases of the kind, or be acquainted with trustworthy accounts of them by others, *he would render good service by giving us the benefit of them.*

At all events, the curative power of the imagination *is* a fact. This ought to be studied like that of every other therapeutical agent, and deserves that a special chapter should be consecrated to it in our manuals of general Medical science.

I am, &c., F. A. HARTSEN.

7, Rue Bayard, Pau (Basses Pyrénées).

DR. LAVIES AND THE "O. W." RELIEF FUND.

[To the Editor of the Medical Times and Gazette.]

SIR,—It is only within a few days, since my return from France, that I have learnt that it was in the *Medical Times and Gazette* that my dear friend, Dr. Lavies, invited my Professional brethren to aid him in relieving my family and myself from a most painful position caused by the late war. The Profession most generously responded to the appeal, and I have endeavoured, by letter and in person, to express my grateful thanks to each of the contributors; but as there may still be some whose names and addresses I do not know, I trust you will allow me to take the same means of showing my gratitude that Dr. Lavies did in promoting its cause.

September 26. I am, &c., O. W.

A SHEFFIELD colliery contractor was fined on the 21st inst., under the Factory Act, for employing a boy not certified by the Surgeon.

(a) See, for example, the account of the origin of the Chapel and Statue at Lourdes, by M. Henri Lasserre, in his well-written book, "Notre Dame de Lourdes," and the extracts from this book by the same author.

OBITUARY.

SAMUEL SOLLY, F.R.C.S., F.R.S.,

Died on Sunday last, somewhat suddenly; but he had been ailing for some considerable period, and had been unfitted for following his Profession for some months past. Mr. Solly was an apprentice of Mr. Benj. Travers, sen., at the united Hospitals of St. Thomas's and Guy's, at which school and at Paris he was educated. He was admitted a Member of the Royal College of Surgeons in 1828, and Fellow in 1843. He was appointed Professor of Human Anatomy and Surgery to the College in 1862, and in 1867 a member of the Court of Examiners and senior Vice-president. He had been a member of the Council since 1856. At the election of President in 1870 it was generally anticipated that Mr. Solly would be elected to that office, but the choice of the Council fell on Sir William Fergusson, Bart., Serjeant-Surgeon to the Queen. He felt this "slight" very acutely, and this, combined with another disappointment respecting the career of one of his family, had a marked effect upon his health and spirits. Naturally vivacious and full of animation, he sank into a somewhat listless state, and showed marks of fading intellectual power. Under these circumstances he resigned his seat at the Examining Board of the College, and, in fact, retired from all active duties in his Profession. Mr. Solly was all his Professional life connected with St. Thomas's Hospital, and was Senior Surgeon and Lecturer on Surgery to that institution until a short time before his death. He held several honorary and other appointments. He contributed several works of some merit to the Profession. The chief of these were "On the Human Brain," a large volume entitled "Surgical Experiences," and "An Analysis of Muller on the Glands." Mr. Solly was a good but not a great Surgeon. He was scarcely in the category of the "giants of the Borough Hospitals," but was on an average of Hospital Surgeons in general. He was a fair operator, a florid lecturer, and a good clinical teacher. He was somewhat below the middle height, a rather small head, bald, with sagacious blue eyes, a nose inclined to the aquiline, a florid complexion, and an animated expression of countenance. He was a man of untiring industry, and one of the few Hospital Medical officers who saw their patients early in the morning. He was in his 66th year.

DR. GEORGE CURSHAM

Died on Saturday last in his 77th year. He was an M.D. of Paris, and Fellow of the Royal College of Physicians of England. He was Physician to two life offices, Provincial Inspector of Anatomy, and late Physician to the Hospital for Consumption, Brompton. He was better known to the Profession, however, as having been for some time one of the honorary secretaries of the Royal Medical and Chirurgical Society, the duties of which office he fulfilled with great ability and urbanity. On his retirement he was presented by the Fellows with a very handsome silver inkstand. We are not aware that Dr. Cursham made any contributions to the literature of Medicine, with the exception of a paper to the Royal Medical and Chirurgical Society, entitled "Cases of Obstruction of the Veins in the Lower Extremities of Phthisical Patients." He never had a large practice. He was a most amiable man, and of a retiring disposition.

JAMES ALFRED TURNER, STAFF SURGEON,

Died on the 18th instant, at Chyngton-house, Seaford, Sussex, aged 40. He entered the service July, 1855, and became Surgeon November, 1869. He was present at the capture of Cantou, on December 29, 1857; skirmish at White Cloud Mountains, June 3; and capture of Narntow, August 11, 1858; also the campaign of 1860 in North China, including the affairs of Sinho and Tangku, capture of the Taku Forts, and surrender of Pekin—medal and three clasps.

WILLIAM HENRY WRIGHT,

One of the Surgeons of the Metropolitan Police, and of No. 1, Clapton-square, met with a melancholy death on the 22nd instant, in the Welsh mountains, near Dolgelly. He ventured upon a narrow ledge of rock, in order to obtain a good view of a waterfall, and was precipitated to the bottom of a cliff seventy feet in height.

MEDICAL NEWS.

Apothecaries' Hall. — The following gentleman passed his Examination in the Science and Practice of Medicine, and received his Certificate to practise, on Thursday, September 21, 1871:—

Tims, Thomas Lamb, Warwick.

As an Assistant in Compounding and Dispensing Medicines:

Culf, John Carrington, East Suffolk Hospital, Ipswich.

The following gentleman also on the same day passed his first Professional examination:—

English, Thomas Johnson, St. George's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Carless, Edward Nicols, M.B., C.M., L.F.P.S.—Medical Officer and Public Vaccinator to the First District of Devizes Union, *vice* Robert Samuel Thornley, M.R.C.S., L.S.A., deceased.

Clark, Robert Orr, M.R.C.S.E. and L.S.A.—Medical Officer for the North District of the Farnham Union.

Fernie, Henry Mostlock, M.R.C.S.E. and L.S.A.—Certifying Factory Surgeon to the Macclesfield District.

Hayward, Sidney, M.D., M.R.C.S., L.S.A.—Medical Officer of the Overton District of the Whitchurch Union.

Henry, Richard, A.B., M.D. Queen's University, Ireland, L.R.C.S.I., and L.M.R. of Dublin—Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Aughnacloy Dispensary District of the Clogher Union, counties of Tyrone and Monaghan, *vice* Dr. John Watson Mulligan, resigned.

Johnston, William, M.D. Edin., L.R.C.S. Edin., Retired Assistant-Surgeon, Royal Navy — Medical Officer for the Southsea District of the Portsea Island Union.

Lorimer, J. A., L.R.C.P.L., M.R.C.S.E.—Public Vaccinator for the town of Farnham.

Pinder, George Holtby, M.R.C.S. and L.S.A.—Physician's Assistant at the Royal Infirmary, Manchester.

Roberts, Arthur Copleston, M.R.C.S. Eng., L.S.A.—Surgeon to the Exeter Dispensary, *vice* John Shirley Steele Perkins, L.R.C.P. Edin., M.R.C.S. Eng., deceased.

Waddy, H. E., L.R.C.P. Lond., M.R.C.S. Eng.—Surgeon to the Children's Hospital, St. Lucy's Home, Gloucester, *vice* Caleb Barrett, F.R.C.S. Eng., resigned.

MILITARY APPOINTMENTS.

Medical Department.—Staff Surgeon William Arthur Thomson, M.B., having completed twenty years' full-pay service, to be Staff Surgeon-Major, under the provisions of the Royal Warrant of December 27, 1870.

Bombay Army.—Medical Department.—To be Surgeon-Major: Surgeon Thomas Berkeley Beatty, M.D.

BIRTHS.

Brake.—On August 28, at Nagpur, India, the wife of Dr. John Brake, Inspector-General of Prisons, Central Provinces, of a son.

Crawford.—On September 24, in London, the wife of Thomas Crawford, M.D., Deputy Inspector-General of Hospitals, of a daughter.

Duckworth.—On September 21, at 11, Grafton-street, Bond-street, W., the wife of Dyce Duckworth, M.D., of a daughter.

Grabham.—On September 22, at Pontefract, the wife of Charles Grabham, M.B., of a son.

Hairland.—On September 23, at Northwold, Cheltenham, the wife of H. J. Hairland, M.D., of a daughter, stillborn.

Lloyd.—On September 23, at Spring-hill, Birmingham-heath, Birmingham, the wife of Dr. Lloyd, of a son.

Norton.—On September 20, at Rye House, Putney-hill, the wife of Selby Norton, M.D., of a son.

Ross.—On August 16, at Gulmurg, Cashmere, the wife of J. Halyburton Ross, Surgeon H.M.'s 39th Regiment, of a daughter.

White.—On September 21, at Myrtle Villa, Victoria-road, Aldershot, the wife of Staff Assistant-Surgeon M. L. White, of a son.

MARRIAGES.

Bateson—Townson.—On September 20, at St. Paul's Church, Caton, near Lancaster, Robert S. Bateson, Surgeon Bengal Army, to Catherine A. (Kate), elder daughter of Robert Townson, Esq., Ash House, Caton.

Clarke—Walker.—On September 21, at St. Giles's Church, Camberwell, Frederick Howard Clarke, Surgeon, of Chillington, Devon, to Martha, youngest daughter of the late Miller Walker, Esq., Long Sutton, Lincolnshire.

Diver—Skinner.—On September 16, at St. Martin's-in-the-Fields, Thomas Diver, M.D., M.R.C.S. Eng., etc., of Bombay, to Mrs. Charlotte Lisle, second daughter of the late Joseph Skinner, Esq., of Exeter, Devon.

Greenhow—Taylor.—On September 27, at Starston, Norfolk, Henry M. Grecnhow, F.R.C.S., Surgeon H.M.'s Bengal Army, to Jessie, youngest daughter of T. Lombe Taylor, Esq., of Starston.

Griffin—Buxton.—On September 20, at the parish church, Fazeley, Edwin Perrins Griffin, of Kidderminster, to Margaret Taylor Young Waddell, elder daughter of T. Buxton, M.R.C.S., of Fazeley, Tamworth.

Hussey—Armstrong.—On September 21, at the parish church, Brighton, Edward L. Hussey, F.R.C.S. Eng., of Oxford, to Lucy, eldest daughter of the Rev. H. W. Gleed Armstrong, M.A., vicar of Bierton, Aylesbury.

LOWE — GRAHAME.—On August 17, at St. Andrew's Kirk, Bangalore, Thomas Lowe, Surgeon Madras Sappers and Miners, to Margaret MacDonald (Maggie), eldest daughter of George Grahame, Esq., 1st Battalion 21st Royal Scots Fusiliers.

ROY—HAIRBY.—On September 26, at the parish church, Hundleby, Lincolnshire, the Rev. Robert Evelyn Roy, M.A., rector of Skirbeck, Lincolnshire, to Anne Susanna, eldest daughter of the late James Hairby, M.D., of Northbeck House, Hundleby, and granddaughter of the late Thomas Garfit, Esq., formerly of Hundleby.

DEATHS.

ALEXANDER, GERVASE, M.D., eldest son of the late Gervase Alexander, M.D., of Halifax, Yorkshire, at his residence in the Haymarket, London, on September 23, aged 68.

COOKE, ELLEN, daughter, and only child, of George R. Cooke, Surgeon, at Greenhithe, on September 25, aged 2 years and 2 months.

CORNISH, SAMUEL HENRY, Surgeon, late of 32, New-cross-road, after a lingering illness, on September 20, in the 40th year of his age.

CURSHAM, GEORGE, M.D., F.R.C.P.L., Government Inspector Anatomical Schools, at Victoria-street, Westminster, on September 23, aged 76.

EVANS, JOHN OWEN, M.D., at Fratton, Portsmouth, on September 18, aged 48.

FORD, JAMES H., M.R.C.S., L.S.A., at Grays, Essex, on September 5, aged 67.

FOULDS, FRANCES, the beloved wife of Samuel Foulds, Surgeon, at Chesterfield, after a short illness, on September 18, aged 37.

GOODACRE, THOMAS BERNARD, infant son of Dr. Goodacre, at The Rectory Wilby, Norfolk, on September 24, aged 2 months.

HARRIES, CHARLES ALEXANDER, M.R.C.S.E. and L.S.A., at Bath, for forty years a Practitioner in that city, on September 22, aged 63.

MILBANKE, MARY, the beloved wife of R. T. Milbanke, M.D., and relict of the late Evan Jones Cruchley, R.N., at Brighton, on September 24.

PLAYNE, FRANCES MARIA, the beloved wife of Alfred Playne, M.B., of Maidenhead, and Box House, Minchinhampton, Gloucestershire, at Maidenhead, on September 21.

STAMPER, PRISCILLA, the wife of J. Fenton Stamper, M.D., at Pembroke Dock, on September 15, aged 41. Interred at Highgate Cemetery.

STOTT, JANETTE COTTERELL, widow of Hugh Stott, Surgeon, formerly of Lewisham, on August 21, in the 43rd year of her age.

TURNER, JAMES ALFRED, Surgeon to Her Majesty's Forces, at Chyngton House, Seaford, Sussex, on September 18, aged 40.

VALLANCE, JAMES THOMAS, M.D., F.R.C.S.E., of Villette, Broadstairs, at Stratford, Essex, on September 22, aged 63.

WEBSTER, EDWARD, Surgeon, at Oundle, on September 20, aged 56.

WRIGHT, WILLIAM HENRY, M.R.C.S. and L.S.A., of 1, Clapton-square, London, younger son of the late R. J. P. Wright, Esq., of Clapton, at Festiniog Falls, accidentally drowned, on September 22.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

DUDLEY GUEST HOSPITAL.—Resident Medical Officer. Must have both Medical and Surgical qualifications, and be registered. Applications and testimonials to the Rev. G. Y. Osborne, St. Edmund's Vicarage, Dudley, on or before October 14.

GAINSBOROUGH DISPENSARY.—House-Surgeon. Must be duly qualified and registered. Applications and testimonials to Mr. F. C. Spouncer, on or before October 4. Election on the 19th.

PARISH OF UNST, SHETLAND.—Medical Officer. Applications and testimonials to Mr. White, Inspector of the Poor.

QUEEN ADELAIDE'S DISPENSARY, POLLARD-ROW, BETHNAL-GREEN.—House-Surgeon. Must be a member of one of the Colleges of Surgeons of London, Edinburgh, or Dublin, and L.S.A. Applications and testimonials to the Rev. T. Peckston, 269, Cambridge-road, London, E., on or before October 3. Election on October 6.

ROYAL ORTHOPÆDIC HOSPITAL.—House-Surgeon and Apothecary. Must be M.R.C.S. and L.A.C., or possess the certificates of Medical and Surgical qualifications of some British University, College, or Corporation by charter. Applications and testimonials to the Secretary, 315, Oxford-street.

WARMINSTER UNION.—Medical Officers for the Warminster District and Union Workhouse, and for the Corsley District. Candidates must possess the qualifications prescribed by the Local Government Board. Applications and testimonials to Mr. J. Merrick, Clerk to the Guardians, Warminster, on or before October 16. Election the same day.

WARRINGTON DISPENSARY.—Resident Surgeon-Apothecary. Must have the qualifications which are required of candidates for appointments in the Poor-law Medical Service. Applications and testimonials to the Honorary Secretary, on or before October 2.

WESTMINSTER HOSPITAL.—House-Physician. Must be qualified to practise under the Medical Registration Act of 1858. Applications and testimonials to the Secretary, on or before October 1. Election on October 10.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1861.

RESIGNATIONS.

Pocklington Union.—The First Pocklington District is vacant; area 17,367; population 4783; salary £40 per annum.

Tiverton Union.—The Silverton District is vacant; area 6549; population 1514; salary £32 per annum.

West Derby Union.—Mr. Richard B. Reid has resigned the Bootle-cum-Linacre District; area 1050; population 6405; salary £100 per annum—and the Workhouse; salary £70 per annum.

Westhampnett Union.—Mr. George C. Carter has resigned the Rumboldswhyke District; area 11,452; population 2908; salary £100 per annum.

APPOINTMENTS.

Saint Saviour's Union.—James R. Tumner, M.R.C.S.E., L.S.A., to the Third District.

Tenterden Union.—Wm. H. C. Tessier, M.D. St. And., L.R.C.S. Edin., L.S.A. Lond., L.A.H. Dub., to the Halden District.

DR. HUNTER is to be the first Director-General of the new department in India, to be called the "Statistical Department."

THE general condition of the health of Paris is good. Last week there were 832 deaths. Of these 55 were from diarrhœa, 45 from bronchitis, 35 from dysentery, 17 from infantile cholera, and 2 from cholera.

THE Guardians of Islington, on Thursday week, voted a gratuity of £20 to the Medical Officer for extra services rendered during the transfer of the inmates of the Workhouse to the new building at Upper Holloway.

AT the instance of the Local Government Board, the Guardians of Camberwell have taken steps to build a new infirmary, at a cost of £17,000.

WE are requested to announce that a *conversazione* will be held in the Board-room of St. Mary's Hospital, after the delivery of the Introductory Address by Dr. Alfred Meadows, at 8 p.m. on Monday next, October 2.

A MEETING of working-men has been held at Stepney, in aid of the funds of the London Hospital. Resolutions approving of the objects of the meeting were submitted and carried.

THE Liverpool charities have just been enriched by £9296 6s. 4d., the residue of the estate of Mr. James Dunlop, tailor and draper, which he directed by will to be thus applied. The four principal Medical charities each receive £929 12s. 7d., and others sums proportionate to their size and usefulness.

DR. R. FOWLER, late Medical Officer to the dissolved East London Union, has been awarded an annuity of £60 by the Local Government Board, in consideration of the loss of his office. *Little enough, too!* considering the long term of office, and the admirable manner in which Dr. Fowler performed the important duties entrusted to him.

THE last advices from Bahia report some yellow fever cases in that port. The health of the city of Buenos Ayres is good, notwithstanding that the weather had been most trying, and rain much wanted. All that can be done will be done to combat the disease this summer; and it is to be hoped that the city of Buenos Ayres will escape the revisitation of the plague of 1871.

WILLIAM COLLINSON, chemist and druggist, of Rotherham, was on Monday committed for trial for the wilful murder of Eliza Utley, aged 27 years, by using an instrument with a felonious intent.

DR. FRESENIUS publishes in the *Zeitschrift für Analytische Chemie*, for 1871, a somewhat severe reflection on modern chemists for their almost entire neglect of analytical investigation.

SMALL-POX is still on the increase in Chester.

THE small-pox return to the Chorlton Board of Guardians, last week, showed that there were 14 in the Hospital; 4 had been admitted during the week, and 4 had been discharged; 1 had died, unvaccinated; 13 remained under treatment, of whom 7 were convalescent.

ACCORDING to Drs. Davis and Moreton, the average cranial capacity of man in the Teutonic family is 94 cubic inches; in the Esquimaux, 91; in Negroes, 85; in Australians, 81; in Asiatics, 87; and in the Bushmen, 77. It is argued that size of brain stands in direct relation to high intellectual powers, since Cuvier, Humboldt, Napoleon, and other great men, possessed large brains.

A FEVER SPOT.—Dr. T. Thorne, reporting on the condition of Dudley, says that the mortality from fevers was enormously high—double that of the large towns of England and Wales, exceeding even Liverpool; that typhus had been epidemic; and that he considered it was largely owing to the overcrowding and destitution among the poor.

PARISH OF LIVERPOOL.—The vacancy caused by Dr. De Zouche's resignation has been filled by the appointment of Mr. James Ridley, L.R.C.S. Ire., L.K.&Q.C.P., and L.M. Dub., to a district. The following changes of districts, however, will take place:—Dr. Paterson removes from No. 6 District to No. 7 (Dr. De Zouche's); Dr. Lowndes removes to No. 6 from No. 5; Dr. Anderson to No. 5 from No. 1; Dr. Fisher to No. 1 from No. 2; Mr. Ridley takes No. 2. Mr. Ridley was formerly Resident Medical Officer to the Workhouse.

New Hospital at Lanark.—The foundation-stone of a public Hospital for the district of Lanark was laid on the 14th inst. by Mr. Robert Monteith Carstairs.

Death of M. Blache.—M. Blache, one of the most distinguished of the Paris Physicians, and quite recently President of the Academy of Medicine, died last week. His loss is felt the more severely by the Profession as he was a great favourite among them as an attendant upon their own families. He had a large consultation practice, in town and country, in children's diseases. He was son-in-law of M. Guersant.

Royal Colleges of Physicians and Surgeons of Edinburgh.—The following are the subjects of preliminary examination for the diplomas during the year 1871-72:—In Latin, the books prescribed to be translated from are, *for October* 21 *and November* 4, 1871, as formerly, the 1*st Oration of Cicero against Catiline*, and the 2*nd book of the Æneid of Virgil*; the candidate, besides selecting one of these at his option, will be required to translate a passage from an unprescribed author. For April 20 and July 20, 1872, the candidate must select one of the two following authors and subjects, viz.:—Cicero de Senectute et de Amicitia; Horatii Carmina, Lib. II. et III., the other subjects of examination being the same as above. In Greek, the books required are, *for October* 21 *and November* 4, 1871, *Xenophon's Anabasis, Book III.*, and *Homer's Iliad, Book I.*; for April 20 and July 20, 1872, Herodotus' History, Book I., and Homer's Iliad, Book II. On each occasion, translation from both the books prescribed is required, also parsing from the passages translated, and derivations of English words from the Greek. In French, the books required are, *for October* 21 *and November* 4, 1871, *La Fontaine's Fables*; and for April 20 and July 20, 1872, Voltaire's Henriade. Parsing, and translation of short sentences from English into French are also required. In German, the books required are, *for October* 21 *and November* 4, 1871, *Schiller's Wallensteins-Tod*; and for April 20 and July 20, 1872, Schiller's Wilhelm Tell. Parsing, and translation of short sentences from English into German are also required.

Liverpool Royal Infirmary School of Medicine.—The session 1871-72 will be opened on Tuesday, October 3, at 3 p.m. (instead of Monday, the 2nd, as previously arranged), with an introductory address by Dr. W. Carter, Lecturer on Botany, and Physician to the Southern Hospital; after which the prizes and certificates of honour gained during the past year will be distributed. The following is the prize-list for the winter session:—*Exhibitioners:* Mr. J. L. Johnstone, Mr. W. Kelly, Mr. J. B. Lyth, Mr. T. F. Young. *Surgery:* Mr. J. B. Lyth, Silver Medal. *Physiology (Seniors):* Mr. E. Riding, Silver Medal; Mr. G. W. Joseph and Mr. D. L. Parry (*æq.*), First Hon. Certificate; Mr. W. T. Hayward, Second ditto. *Anatomy (Seniors):* Mr. G. W. Joseph, Silver Medal; Mr. E. Riding, First Hon. Certificate. *Anatomy and Physiology (Juniors):* Mr. R. N. Pughe, Silver Medal; Mr. D. D. Stewart, First Hon. Certificate; Mr. G. G. S. Taylor, Second ditto. *Chemistry:* Mr. R. N. Pughe, Silver Medal; Mr. E. A. Morgan, First Hon. Certificate; Mr. R. M. Craven and Mr. F. C. Gresham (*æq.*), Second ditto. Summer Session:—*Midwifery:* Mr. D. L. Parry, Silver Medal; Mr. T. R. Jones and Mr. G. H. Wilson (*æq.*), First Hon. Certificate; Mr. J. H. Harricks, Second ditto. *Diseases of Children:* Mr. D. L. Parry, Silver Medal; Mr. J. H. Harricks and Mr. R. Whiteside (*æq.*), Hon. Certificate. *Materia Medica:* Mr. E. Riding, Silver Medal; Mr. J. Bark, First Hon. Certificate; Mr. G. W. Joseph, Second ditto. *Medical Jurisprudence, etc.:* Mr. G. W. Joseph, Prize; Mr. E. Riding, Hon. Certificate. *Botany:* Mr. R. M. Craven, Prize; Mr. E. Marmon. Hon. Certificate. *Practical Chemistry:* Mr. J. Bark, Prize; Mr. F. C. Gresham, Hon. Certificate, *Comparative Anatomy:* Mr. T. F. Parry, Prize; Mr. F. C. Gresham, Hon. Certificate.

Absorption of Water by Leaves.—M. Cailletet, in a recent communication to the Académie des Sciences, states his solution of the problem whether leaves absorb water. Various experimenters have reported contradictorily on the matter, and M. Duchartre, in his latest works, answers the question in the negative. M. Cailletet proves that both sets of observers are right, by showing that absorption differs according to the conditions of the plant. If it grows in a well-watered soil, its leaves never absorb water; but if it receive by its roots an insufficient quantity of water for its vegetation, the leaves, if they are moistened, will supply this. Thus, a faded branch will recover all its freshness if its summit, or even only some leaves, be soaked in water, while plants may be thus made to live without being in contact with the soil, and quite isolated from all assimilable matter.—*Union Medicale.*

Citrate of Cafein in Neuralgia.—Dr. Arnett states that he has had great success in the treatment of neuralgia, nervous headache, hysteria, and similar affections, by means of cafein and sulphate of morphia. His formula is—sulph. morph., gr. ½; cafein, citric acid āā gr. iij.; to be given in warm coffee, or, what is better, a decoction of race ginger. It acts powerfully on the skin, equalises the circulation, thereby removing local congestion. In the majority of cases the nervous irritation may be reduced without the sulphate of morphia.—*Boston Journal*, August 17.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Mr. T. W. Patterson, Morar.—Your letter, with enclosure, received with thanks.

In Nubibus.—The clouds will soon be dispelled by the sun of hope.

Formula.—It was in 1824 that the formula for prussic acid was withdrawn from the new edition of the Pharmacopœia, then in course of preparation.

Plympton.—We are acquainted with all the circumstances, but we agree with the chairman of the Board of Guardians, that it would not be fair to discuss the matter in the absence of Dr. Miles.

A Twelve Years' Subscriber.—There can be no doubt that the words "shall have been" have a retrospective effect, and influence all contracts held previous to the passing of the Act.

Discoverer.—Dr. Groenvelt, in 1693, discovered the curative power of cantharides in dropsy; and no sooner did his cures begin to be known than he was at once committed to Newgate, by warrant of the President of the College of Physicians, for prescribing cantharides internally.

Treatment of Alopecia.

To the Editor of the Medical Times and Gazette.

Sir,—In answer to a "Young Practitioner" I have to advise him to apply repeatedly some preparation of cantharides to the form of porrigo named decalvans by Bateman, and, by Celsus, alopecia. Dupuytren, I believe, was the first who employed cantharides in this obstinate complaint, in which I have long used a cantharidine ointment with almost invariable success, whilst the use of it has never been attended with any deleterious effects. My formula requires very careful manipulation in mixing the ingredients, and has been regularly made up at the Liverpool Apothecaries' Hall, 4, Colquitt-street.

I am, &c.,

Liverpool, September 25. An Old Practitioner.

The Queen's Hospital, Birmingham.

To the Editor of the Medical Times and Gazette.

Sir,—"Phlegmon" possibly is personally annoyed that the Queen's Hospital is incorporated as a clinical Hospital by special Act of Parliament. The advantages of such an Act no doubt vex him. The Hospital was founded for clinical purposes. Clinical instruction is the first duty of every officer, and for all time to come every Physician and Surgeon must give regular and efficient tuition, or by Act of Parliament must retire. Only a very few years ago the Committee of the General Hospital refused to admit pupils beyond a few dressers. At any moment this may recur. At any moment, also, the Physicians or Surgeons may refuse to teach, and thus put an end to the clinical qualification of the Hospital. As regards the not very conspicuous black boards within the railing, they are the legacy of an old *régime*, and were better removed. It is simply untrue to say that it is proposed to affix private addresses. Of course "Phlegmon" gives no credit to the Queen's Hospital officers for refusing to have their names published each week in the newspapers. What of the "mote" and "beam," etc.?

I am, &c., Carbuncle.

Infantile Diarrhœa.

To the Editor of the Medical Times and Gazette.

Sir,—Just as the bugle is sounding for mess, or in the middle of a pleasant dream that the examination as to fitness for promotion from the subordinate grade of Assistant-Surgeon had been passed (*en passant*, there's no harm in remarking that this Professional test requires time and leisure for special reading and cramming, that some Medical officers cannot afford), a banging is heard at the door, and a voice exclaims—"Sorry to disturb you, but please, Sir, will you come and see the baby, who is very ill, suffering awful from purging and vomiting, which has been going on more than a week. My husband is on guard; I have no one to help me. The landlady said it was no matter, merely the teeth; we gave a Stedman's powder; consulted Mr. Abel, the chemist, who ordered a draught; and on the advice of Mr. Boxer, the baker, the child has had plenty of brandy." The poor soul, with four other children, finding it difficult to cook her husband's food, to keep the room tidy, let alone attending to the sick infant, dirt and discomfort reign paramount. To culminate trouble, pregnancy prevents her increasing income by taking in soldiers' washing.

In this horrible atmosphere the accomplished Physician—through inclination and opportunity familiar with microscopical, chemical, and pathological accessory aids to diagnosis, besides depending on good food, cleanliness, and judicious nursing—would wring his hands in dismay at the hopeless task before him. As on service the soldier depends on rough-and-ready expedients, so general Practitioners (as Army Medical Officers are in times of peace), adapting matters to circumstances, trade on experience and common sense, of course reading up and consulting in occasional puzzling cases. Lately 2000 deaths in London in six weeks naturally excite alarm; and the Registrar-General, recording 19,903 deaths in 1869, considers diarrhœa one of the most fatal of zymotic diseases. As a rule soldiers' children suffer from diarrhœa during dentition in the proportion of 28 per cent. Of soldiers' wives 9 per cent. menstruate regularly during lactation, but this condition (through hot weather) unexpectedly occurring, infantile digestion becomes deranged. Many women nurse during pregnancy, are very careless as to diet, often giving children the same food as themselves. In that interesting disease, puerperal peritonitis, when we

notice abdominal distension, raw beefy tongue, thready pulse, a wandering eye, yet the patient professing to feel much better, we throw down the cards —the game is lost; the grim destroyer calls "Domino."

So in thrush and infantile diarrhœa, after a little time the alimentary canal has no more power of appreciating food than if it were placed in the gloved hand. Each drop of wine, milk, or beef-tea greedily swallowed simply increases irritation; so do nutritive enemata. Blistering the stomach, then applying poultices of beef-tea or cod-liver oil, will occasionally prolong life. In my own practice, a child, now well and strong, thus lived fourteen days, taking nothing by the mouth—all a chance; we must not despair. Thirteen years' experience recommend the following treatment in certain cases:—Put the infant in a hot bath; give a powder containing hyd. c. cretâ., pulv. ipecac. co., pulv. rhei—(remedies none the worse for being as old as the hills). After the bath the patient to be wrapped in hot blankets, with hot bottles around; apply mustard over the stomach. Interdict for hours any food, solid or liquid, even to touch the lips. Very weak black tea, containing milk and lime-water, may next be given, hot or cold, according to judgment. In other cases quinine and carbonate of soda may be prescribed, or dilute nitro-hydrochloric acid and bark, as circumstances dictate. The nursing mother at the outset should take castor oil, chloroform, and laudanum, should rest, and be most rigid as to diet.

Having neither shares in pearlina, Horniman's tea, revalenta arabica, even chloralum, or any other remedy considered valuable by Medical senators, I should at present pin my faith on chlorodyne, or, still better, hypodermic injections of morphia, if suffering from CHOLERA.

COMMUNICATIONS have been received from—

Dr. STAMPER; Mr. NORRIS; AN OLD PRACTITIONER; Dr. P. S. O'REILLY; Mr. HAGGER; Mr. A. INGLIS; Dr. RUSSELL; Mr. WADDY; Dr. LITTLE; Dr. FAYRER; Mr. P. BELL; Mr. COLLETTE; Mr. MAUNDER; Dr. ARCHER FARA; A TWELVE YEARS' SUBSCRIBER; Dr. MEDD; Dr. EDDISON; Mr. FURNEAUX JORDAN; Mr. WALTER RIVINGTON; Dr. T. S. DOWSE; M. A. B.; Mr. R. HARRISON; AN OLD PUPIL OF JOHN ABERNETHY; Mr. D. W. CROMPTON; Dr. CHEADLE; Dr. F. TAYLOR; Mr. HOLROYD; Dr. F. R. HOGG; Dr. B. W. RICHARDSON; Mr. J. CHATTO; Mr. METCALFE JOHNSON; Dr. OLDHAM; Dr. PLAYFAIR; Dr. CARLESS; Mr. SPENCER CLARKE; Dr. DUDLEY; Mr. BAYDEN; O. W.; THE NAME ON P. 377; ANXIETY.

BOOKS RECEIVED—

Miscellanies, by Dr. J. A. Symonds—Dr. Doherty's Organic Philosophy volume III., Biology—Western-super-Mare Hospital and Dispensary, Report 1871—Professor Zerffi on Spiritulism and Animal Magnetism—Darwinism: being an Examination of Mr. St. George Mivart's "Genesis of Species" by Chauncey Wright, Esq.—Allbutt on the Use of the Ophthalmoscope in Diseases of the Nervous System and of the Kidneys —Williams on Pulmonary Consumption—De l'Ovariotomie, par le Docteur G. Boddaert.

PERIODICALS AND NEWSPAPERS RECEIVED—

Nature—Pharmaceutical Journal—Medical Temperance Journal, October —The Preston Herald—Journal of the Gynæcological Society of Boston, September—Medical Press and Circular—Journal of the Scottish Meteorological Society, July—The Anti-Vaccinator.

APPOINTMENTS FOR THE WEEK.

September 30. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

October 2. *Monday*.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

3. *Tuesday*.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

4. *Wednesday*.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

OBSTETRICAL SOCIETY (Council Meeting, 7½ p.m.), 8 p.m. Dr. Copeman, "On Cæsa in Practice." Dr. Braxton Hicks, "On the Contractions of the Uterus throughout Pregnancy: their Physiological Effects, and their Value in the Diagnosis of Pregnancy." And other Papers.

5. *Thursday*.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; West London, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

6. *Friday*.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

EXPECTED OPERATIONS.

London Hospital.—The following Operations will be performed on Wednesday, at 2 p.m.:—

By Mr. Maunder—Removal of Tumour occupying the Nostril, Orbit, Temporal, and Zygomatic Regions of the Left Side.

By Mr. Couper—Removal of Naso-pharyngeal Polypus; Operations for Ununited Fracture of Femur.

VITAL STATISTICS OF LONDON.

Week ending Saturday, September 23, 1871.

BIRTHS.

Births of Boys, 1049; Girls, 1052; Total, 2101.
Average of 10 corresponding weeks, 1861-70, 2018·9.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	707	704	1411
Average of the ten years 1861-70	621·6	590·5	1215·1
Average corrected to increased population	...	...	1337
Deaths of people aged 90 and upwards	...	...	6

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561189	5	6	8	...	7	1	4	3	31
North ...	751668	37	4	4	4	6	...	2	...	40
Central ...	333887	...	1	1	2	4	...	1	1	18
East	638928	14	8	2	1	5	...	3	1	59
South	966132	33	4	12	...	2	2	2	1	57
Total	3251804	89	23	27	7	24	3	12	6	205

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·745 in.
Mean temperature	53·6°
Highest point of thermometer	67·6°
Lowest point of thermometer	39·0°
Mean dew-point temperature	43·7°
General direction of wind	N.E.
Whole amount of rain in the week	0·10 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, September 23, 1871, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1871.*	Persons to an Acre. (1871.)	Births Registered during the week ending Sept. 23.	Deaths Registered during the week ending Sept. 23.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3263872	41·8	2101	1411	67·6	39·0	53·6	12·00	0·10	0·25
Portsmouth ...	113450	11·9	78	59	69·2	35·2	53·2	11·78	0·00	0·00
Norwich	80533	10·8	60	45	63·5	38·5	51·2	10·67	0·00	0·00
Bristol	183298	39·1	121	69	...	...	...	...	...	...
Wolverhampton ...	68476	20·2	57	41	62·3	37·5	50·0	10·00	0·47	1·19
Birmingham ...	344980	44·1	266	199	62·8	40·1	50·8	10·44	0·00	0·00
Leicester	95882	30·0	101	76	66·2	36·0	51·6	10·89	0·00	0·00
Nottingham ...	86929	43·6	51	52	69·9	38·7	52·0	11·11	0·00	0·00
Liverpool	494649	96·8	358	339	61·1	43·8	50·3	10·17	0·73	1·85
Manchester ...	356099	79·4	259	227	64·0	36·0	49·7	9·83	0·33	0·84
Salford	125422	34·3	115	77	60·5	36·2	48·3	9·05	0·49	1·24
Bradford	146987	22·3	89	101	65·4	42·7	50·9	10·50	0·15	0·38
Leeds	260657	12·1	230	181	65·0	42·0	51·7	10·94	0·04	0·10
Sheffield	211507	10·6	190	158	62·0	40·0	50·6	10·33	0·23	0·58
Hull	122266	34·3	93	59	61·0	41·0	50·4	10·22	0·32	0·81
Sunderland ...	98797	29·9	113	92	...	...	...	...	...	...
Newcastle-on-Tyne	128677	24·1	66	70	57·0	44·0	49·2	9·55	0·23	0·58
Edinburgh	201728	45·6	158	102	60·0	39·0	48·9	9·39	1·40	3·56
Glasgow	479227	94·7	326	238	57·0	43·0	50·4	10·22	0·75	1·90
Dublin (City, etc.)	310565	31·9	162	139	68·9	30·0	49·2	9·55	0·01	0·03
Total of 20 Towns in United Kingd'm	7204001	33·8	4994	3735	69·9	30·0	50·7	10·39	0·29	0·71

At the Royal Observatory, Greenwich, the mean reading of the barometer in the week was 29·75 in. The highest was 30.09 in. at the beginning, and the lowest was 29·33 in. at the end of the week.

* The figures in this column are the unrevised numbers enumerated in April last, raised to the middle of the year by adding 1-40th of the rate of increase which prevailed between 1861 and 1871. As the population of Dublin and its suburbs showed a decline between the Censuses of 1861 and 1871, the enumerated number in April last has been inserted above for that city, the population being assumed to be now stationary.

Continued from the Fifth Page of Advertisements.

St. Thomas's Hospital.—The Medical

SESSION for 1871 and 1872 will commence at the New Hospital, on the Albert Embankment, Westminster-bridge, S.E., on MONDAY, the 2nd OCTOBER, 1871, on which occasion an Inaugural Address will be delivered by Mr. Le Gros Clark, at Two o'clock, after which the Distribution of Prizes will be made by Sir Francis Hicks, Treasurer.

Gentlemen entering have the option of paying £40 for the first year, a similar sum for the second, £20 for the third, and £10 for each succeeding year; or, by paying £105 at once, of becoming perpetual Students.

PRIZES AND APPOINTMENTS FOR THE SESSION.

First Year's Students—Winter Prizes, £20, £15, and £10; Summer Prizes £15, £10, and £5.

The Wm. Tite Scholarship, founded by Sir Wm. Tite, C.B., M.P., F.R.S., the proceeds of £1000 Consols, tenable for three years, is awarded every third year.

Second Year's Students—Winter Prizes, £20, £15, and £10; Summer Prizes, £15, £10, £5; the Dresserships and the Clinical and Obstetric Clerkships.

Third Year's Students—Winter Prizes, £20, £15, and £10; Mr. George Vaughan's Cheselden Medal, the Treasurer's Gold Medal, the Grainger Testimonial Prize, the Two House-Physicianships, the Two House-Surgeoncies, the Resident Accoucheurships; Two Medical Registrarships, at a salary of £40 each, or one at £80, are awarded to 3rd and 4th year's Students, according to merit.

MEDICAL OFFICERS.

Honorary Consulting-Physicians—Dr. Barker and Dr. J. Risdon Bennett. Dr. Peacock, Dr. Bristowe, Dr. Clapton, Dr. Murchison, Dr. Barnes, Mr. Le Gros Clark, Mr. Simon, Mr. Sydney Jones, Mr. Croft, Mr. Liebreich, Dr. Stone, Dr. Ord, Dr. John Harley, Dr. Payne, Dr. Gervis, Mr. MacCormac, Mr. Francis Mason, Mr. Hy. Arnott, Mr. J. W. Elliott.

Medicine—Dr. Peacock and Dr. Murchison. Surgery—Mr. Le Gros Clark and Mr. Sydney Jones. General Pathology—Dr. Bristowe. Physiology and Practical Physiology—Dr. Ord and Dr. John Harley. Descriptive Anatomy—Mr. Francis Mason and Mr. W. W. Wagstaffe. Anatomy in the Dissecting-room: Anatomical Lecturers—Mr. Rainey and Mr. Wm. Anderson. Chemistry and Practical Chemistry—Dr. A. J. Bernays. Midwifery—Dr. Barnes. Practical and Manipulative Surgery—Mr. Croft and Mr. MacCormac. Physics and Natural Philosophy—Dr. Stone. Materia Medica—Dr. Clapton. Forensic Medicine and Hygiene—Dr. Stone and Dr. Gervis. Comparative Anatomy—Mr. C. Stewart. Ophthalmic Surgery—Mr. Liebreich. Botany—Dr. Wale Hicks. Dental Surgery—Mr. J. W. Elliott. Demonstrations Morbid Anatomy—Dr. Payne. Mental Diseases—Dr. Wm. Rhys Williams. Geographical Distribution of Diseases in England and Wales—Mr. A. Haviland.

T. B. PEACOCK, M.D., Dean.
R. G. WHITFIELD, Medical Secretary.

For entrance or Prospectuses, and for information relating to Prizes and all other matters, apply to Mr. Whitfield, Medical Secretary, St. Thomas's Hospital, Albert-embankment, Westminster-bridge, S.E.

St. Thomas's Hospital, Albert-

EMBANKMENT, WESTMINSTER-BRIDGE, S.E.

The ACADEMICAL SESSION for 1871-72 will commence on MONDAY, the 2nd of OCTOBER, on which occasion an Inaugural Address will be delivered by F. Le Gros Clark, Esq., at Two o'clock p.m. The Prizes for the past Session will afterwards be distributed by the Treasurer, Sir Francis Hicks.

Old Students of St. Thomas's (with their friends), on presenting their cards, will be immediately admitted.

Leeds School of Medicine. — The

WINTER SESSION will commence on Monday, 2nd OCTOBER. The Introductory Address will be delivered by T. Clifford Allbutt, Esq., M.A., M.D., at twelve noon.

LECTURES AT THE SCHOOL.

Anatomy—Mr. James Seaton, Dr. R. T. Land, Mr. J. A. Nunneley.
Physiology (including the Practical Course)—Messrs. C. J. Wright and James Walker.
Medicine—Dr. Chadwick, Dr. Heaton, and Dr. Allbutt.
Surgery (including the Practical Course)—Messrs. Claudius G. Wheelhouse, F.R.C.S., T. Pridgin Teale, F.R.C.S., and T. R. Jessop, F.R.C.S.
Chemistry—Mr. J. Chapman Wilson.
Materia Medica—Dr. John Edwin Eddison.
Midwifery—Mr. William Hall.
Forensic Medicine—Mr. Thomas Scattergood.
Botany—Mr. Edward Atkinson.
Comparative Anatomy—Mr. C. G. Wheelhouse, F.R.C.S., and Dr. Allbutt.
Demonstrators of Anatomy—Messrs. R. P. Oglesby, Charles Richardson, and John Horsfall, F.R.C.S.

Clinical Lectures are given by the Physicians and Surgeons to the Infirmary.

Ophthalmoscopic Demonstrations are given by Mr. T. P. Teale.

Demonstrations in Operative Surgery are given by Mr. Wheelhouse and Mr. Teale.

Demonstrations of Skin Diseases are given by Dr. Allbutt in the Infirmary.

Instruction in Vaccination is given by Mr. Holmes, one of the Public Vaccinators.

Besides the Infirmary, there is a large Dispensary and a Fever Hospital, both of which are open to Students of the School.

Special Prizes of the value of £10 each are given in the classes of Clinical Medicine, Clinical Surgery, and Forensic Medicine.

Silver and Bronze Medals are given in the Class Examinations.

Composition Fee, entitling to attendance upon all the required courses of School Lectures, forty-four guineas. The Fees for attendance upon the Medical and Surgical Practice of the Hospital are twenty guineas each for three years, and proportionally less for single sessions.

All applications for Tickets should be made to the Treasurer, Dr. Heaton, Claremont, Leeds. The Prospectus, and any further information about the School, may be obtained from the Secretary, Dr. Eddison, 19, Park-square, Leeds.

St. Bartholomew's Hospital and College.

—The WINTER SESSION will commence on MONDAY, OCT. 2nd. Students can reside within the Hospital walls subject to the College regulations. For all particulars concerning either the Hospital or College, application may be made, personally or by letter, to the Resident Warden of the College, or at the Museum or Library. A handbook will be forwarded on application.

St. Bartholomew's Hospital and

COLLEGE.

CLASSES FOR THE UNIVERSITY OF LONDON.

MATRICULATION EXAMINATION.

There will be two Classes held at St. Bartholomew's Hospital in each year, for the convenience of gentlemen who are preparing for the Matriculation Examination at the London University, from October to January, and from March to June. Provision will be made for teaching all the subjects required, as follows:—

1. Classics, French, English, Modern Geography, and English History—Malcolm Laing, M.A., Trin. Coll., Cambridge.
2. Mathematics and Natural Philosophy—Rev. E. S. Carlos, B.A. Trin. Coll., Cambridge.
3. Chemistry—H. E. Armstrong, Ph.D.

Fee for the Course of Three Months ... ... 10 Guineas.
Fee for 1 or 2 ... ... 5 Guineas.
Fee for 3 ... ... 2 Guineas.

PRELIMINARY SCIENTIFIC EXAMINATION.

A Class in the subjects required for the Preliminary Scientific Examination will be held from January to July, and will include all the subjects required, as follows:—

Chemistry—H. E. Armstrong, Ph.D.
Botany—Rev. G. Henslow, M.A. Cantab., F.L.S., Lecturer on Botany to the Hospital.
Zoology and Comparative Anatomy—W. S. Church, M.D. Oxon., Lecturer on Comparative Anatomy to the Hospital; late Lee's Reader in Anatomy at Christchurch, Oxford.
Mechanical and Natural Philosophy—P. J. Hensley, M.D. Cantab., Fellow of Christ Coll., Cambridge.

Fee to Students of the Hospital ... ... 6 guineas.
Fee to others... ... ... 10 guineas.
Fee for any single subject ... ... 3 guineas.

Further information may be obtained on application, personally or by letter, to the Resident Warden of the College, St. Bartholomew's Hospital.

Middlesex Hospital. — The Winter

SESSION for 1871-72 will be opened on MONDAY, OCTOBER 2nd, at Three o'clock, with an Introductory Address by Dr. John Murray.

LECTURES FOR WINTER TERM.

Medicine—Dr. Greenhow, F.R.S. Surgery—Mr. De Morgan, F.R.S. Practical Surgery—Mr. Hulke, F.R.S.; Mr. Lawson; Mr. Henry Morris. Diseases of the Eye—Mr. Hulke, F.R.S. Physiology—Mr. Lowne. Anatomy—Dr. R. Liveing, M.A. Cantab. Chemistry—Mr. Heisch. Pathological Anatomy—Dr. Cayley. Anatomical Demonstrations—Dr. Liveing. College Tutor—Dr. Liveing.

Consulting-Physicians—Dr. F. Hawkins, Dr. A. P. Stewart.
Physicians—Dr. Goodfellow, Dr. Thompson, Dr. Greenhow, F.R.S.
Obstetric Physician—Dr. J. Hall Davis.
Assistant-Physicians—Dr. R. Liveing, M.A. Cantab., Dr. Cayley, Dr. John Murray.
Consulting-Surgeon—Mr. Shaw.
Surgeons—Mr. De Morgan, F.R.S., Mr. Nunn, Mr. Hulke, F.R.S.
Assistant-Surgeons—Mr. Lawson, Mr. Henry Morris.
Dental Surgeon—Mr. Tomes, F.R.S.
Assistant Dental Surgeon—Mr. Turner.

The Hospital contains 305 beds; there are special departments for Cancer (36 beds), for Diseases of the Eye, Diseases of Women and Children, and Syphilis. Demonstrations are given during the Summer Session on Diseases of the Skin and the Use of the Laryngoscope. Three Clinical Prizes, including the Governors' Prize of Twenty Guineas, are awarded to those Students who pass the most satisfactory examination at the bedside and in the Post-mortem Room. Class Prizes are also given. There are likewise valuable rewards in the form of Six Resident Clinical Appointments. Students can avail themselves, free of charge, of the assistance of the College Tutor, and thus avoid, when preparing for the examinations of the Licensing Boards, the necessity of any private teaching apart from that of the Medical School.

General Fee for attendance on the Hospital Practice and Lectures required by the Colleges of Physicians and Surgeons and the Society of Apothecaries, £90, which may be paid by instalments.

Fee for Dental Students, £25 guineas for the first year, and 15 guineas for the second.

Some of the members of the staff receive Students to board with them.

Further information may be obtained on application to the Treasurer, Dr. Greenhow; the Dean, Dr. Cayley; or to Mr. Lucas, the Resident Medical Officer, at the Hospital.

Middlesex Hospital Medical College.

—WINTER SESSION, 1871-72.—The SESSION will be opened on MONDAY, OCTOBER 2nd, with an Introductory Address, at 3 p.m., by Dr. John Murray, after which the prizes awarded during the past year will be distributed. The Lectures and Clinical Instruction in the Wards will begin the following day. For the College prospectus and information respecting residence of Pupils and other details apply to the Dean, Dr. Cayley.

The Middlesex Hospital College

DINNER.—The ANNUAL DINNER of the Past and Present Students and Friends of the Middlesex Hospital Medical College will take place at the FREEMASON'S TAVERN on MONDAY, OCTOBER 2nd, at 6.30 p.m.—THOMAS TAYLOR, Esq., F.R.C.S., in the Chair.

Gentlemen intending to be present are requested to send in their names as early as possible to the Dean, Dr. Cayley.

Tickets, 7s. 6d. each (not including wine), to be paid for at the door.

INTRODUCTORY LECTURE

DELIVERED AT THE

OPENING OF THE MEDICAL SCHOOL OF ST. THOMAS'S HOSPITAL,

October 2, 1871.

By FREDERICK LE GROS CLARK, F.R.C.S.,
Senior Surgeon to the Hospital.

The lecturer said: Mr. Treasurer,—It is now many years—I do not care to say how many—since I exchanged my school-days for an articled student's life within the walls of our venerable Hospital. I may even then have indulged in the fond anticipation that, at some long distant future, I might realise the promotion which every Hospital apprentice of my time hoped for, but few attained. Yet I knew that unremitting exertion was needed in this competitive race, and I sought, with others, the mental relaxation and physical bracing which exercise on our river afforded. We used to come to Stangate; and many a time have I tripped, in the lightness of heart which the young and unwarped spirit alone knows, over the long shelving shore at low water, to launch my boat. Even the ready credulity of boyhood would have rejected as absurdly improbable the suggestion that each flood-tide was then flowing over the site of the Hospital of future ages. Yet so it is; and I stand, with mingled feelings of deep emotion, on this spot, to inaugurate the first session of a new era in the history of our old and honoured School.

It would ill become me, on an occasion like the present, to yield to those reflections which naturally claim their influence over the mind of one who has passed the meridian of his days. It is the penalty of survivors to lament over the graves of those who are gone before; and how few of the number who began their career with me still remain, whilst all my honoured teachers have departed. How distant the prospect of the future was long years ago, yet how brief in retrospect. It scarcely needs an effort to carry me back to the time and scenes when, with buoyant hope and earnest purpose, I listened to the words which fell from the lips, and watched the hand-skill, of those I revered—ambitious to tread in their footsteps. Their place knows them no more; and in paying a passing tribute to their memory, I am reminded that I am now the oldest teacher in this School, and the oldest officer or servant of the Institution; and I am sensible how closely the next generation is pressing on—how soon I must give place to others; happy if, perchance, I linger still in the memory of some whose early promise I have hailed, and whose future career I shall continue to watch with abiding interest.

I have been led into this train of reflection by a consciousness that lapse of time has gained for me the privilege of addressing you on this interesting occasion. I shall not, however, indulge myself by giving further expression to meditations in which my younger hearers cannot be expected to sympathise. We are met together to celebrate a new birth; to inaugurate a new era; to renew our association with the familiar waters of our old river, from whose banks we have been divorced so long. He will not resent our presence; for, though we have encroached upon his bed, he flows by us with increased vigour, and in a purer and more wholesome current than of yore. All hail to our noble river, which secures to us immunity from encroachments, and an animated scene and health-giving breezes for our patients.

We have a noble Hospital, and the local habitation of its fitting accompaniment—a great Medical school. To you, Sir Francis, I offer, on behalf of my colleagues, our congratulations on the completion of this great work, which owes so much to your unflagging energy and devotion; and to express, at the same time, our appreciation of the enlightened spirit which has prompted the governors to make such admirable arrangements for the Medical school. I believe, sir—nay, I have no misgiving—that our success will be commensurate with these preparatory advantages, and will leave no room for regret that this impulse has been acted on so liberally.

Although deputed to inaugurate a new era in the history of our Hospital school, I cannot be unmindful that there are many present on this occasion who sympathise with me in the memories of the past; and I may be excused if I devote a few moments to the retrospect. Such indulgence—sentimental if you please so to call it—may not be without its apology, and even its useful application, in this utilitarian age.

The dawning history of St. Thomas's Hospital was not such as to promise the vigorous adolescence which it has since attained. It was early in the thirteenth century—viz., in 1207—that an accidental circumstance gave birth to it. The canons of St. Mary Ovary were burnt out of house and home, and took refuge in a building, which they erected near at hand, till their monastery was rebuilt; and the subsequent appropriation of this building for charitable purposes is the origin of our Hospital. A few years later, when under the patronage of the Bishop of Winchester, the ruins of whose palace still survive by the riverside in Southwark, it was scantily endowed by him.

The derivation of our name is somewhat obscure. It would appear, however, from the careful researches of Dr. Stone, who has contributed a "Short History of Old St. Thomas's Hospital" to our *Reports*, that the Spitil was first dedicated to St. Thomas the Martyr of Canterbury, and afterwards, with more orthodoxy, to St. Thomas the Apostle. The annual income of the Hospital towards the close of the fifteenth century was £343; and this was dispensed by a president, a master, and brethren, the foundation being limited in its usefulness, and employed as an alms-house for the needy and infirm to die in, rather than as a refuge wherein the sick and wounded could be made whole. Nurtured thus through a prolonged infancy of more than three centuries, the institution was at last claimed by our orthodox and excommunicated King Henry VIII., as church property, and was subsequently adopted and endowed by his youthful son Edward, who, shortly before his death, appointed the Lord Mayor and commonalty of the City for the time being as governors in perpetuity of the four royal foundations of St. Thomas, St. Bartholomew, Bridewell, and the Blue-coat School. Under their sheltering wing our Hospital has flourished and been enriched during the succeeding reigns. The old structure survived the great fire of London in 1666, and likewise a succeeding conflagration, ten years later, in Southwark; but towards the close of that century it was replaced by a new building, nearly £40,000 being subscribed for that purpose, and the statue of Sir Robert Clayton, which still graces our grounds, was then erected in commemoration of his liberal benefactions.

My own early memory of our Hospital dates back to a period prior to the erection of the two noble piles of building which flanked the new front square, in the midst of which the beautiful statue of our Sixth Edward stood; and I used to traverse the old London-bridge from my City home, and listen by night, on my way from lecture, to the mysterious music of the water-works, as the tide rushed through them with deafening noise; and little, indeed, did we then ween of the possibility that any power could arise of such influence as to compel our removal to another site.

The interval of our abode in our late temporary refuge has been one of partial suspension of animation, and will, doubtless, ere long be regarded as a blank in our existence, when the life we now renew shall be fully established and developed.

In the chronicles of our Hospital there are recorded many curious and interesting facts and events, as well as the names of both Physicians and Surgeons who were not only famous in their own day, but whose reputation has survived to the present time. Amongst the records—for which I am much indebted to our Medical Secretary, Mr. Whitfield—I find references to some singular customs and circumstances, which mark the changes that time has wrought in us and in our establishments. Thus, towards the close of the sixteenth century, inmates of the Hospital of notoriously bad character were ordered to be punished at the cross erected within its walls before they were discharged; and we have an actual recital of punishment by whipping at the said cross being inflicted, for misdemeanour, in 1567. We also find that, in 1573, the morals of the patients were further cared for, by a hand-mill being provided for them wherein to grind corn, that they might thus "be kept from idleness." In 1698, Mr. Elton, one of the Surgeons, was suspended from his office for assaulting and beating one of his colleagues; and in consequence thereof an order of the Court of Governors was passed—which, I presume, is still in force—that in future, if any officer strike or beat another officer, he should be expelled.

This was certainly a vulgar way of resenting an offence, and is suggestive of the hybrid character of the barber-chirurgeon of that epoch. But it is recorded traditionally that the more

polished Physician, whose status in society permitted him to carry a rapier by his side, was also guilty of Professional squabbling, ending in deadly feud; for Mr. Whitfield has in his possession a gold-headed cane which was presented by one of our Medical staff to his grandfather, in recognition of his services in arresting a mortal combat across his table by two Physicians of this establishment.

I find the practice of specialities is recognised in the register of events of 1638, when 20*l.* a year was voted to a Surgeon—I suppose the Wilson of his time—for the special care and cure of scald-head. But the governors of that period showed a wise discretion in another allied act. It is well known that, before the great Cheselden lived, and adorned alike the Profession and our Hospital, one of the most terrible diseases to which the human frame is subject was rarely cured, because of the ignorance and incapacity of those who undertook the only means of affording effectual relief by operation. Now, it appears that in the year 1700 a certain Dr. Cypriano, a native of Amsterdam, and educated at Utrecht, had acquired a reputation for lithotomy; and the General Court of the Hospital, prompted by a humane feeling, and careful also of the honour of their officers, requested the President to treat with this gentleman, with the view to his instructing two of their Surgeons in his special operation. It is recorded that on several occasions he performed the operation in question at our Hospital with great success, and without fee or reward; but we do not learn whether his instructions were serviceable to his two pupils. I should think it doubtful; for little is learned in a complex operation, almost every step of which is out of sight, and in which an appreciation of all the attendant difficulties can be acquired only from an accurate acquaintance with the anatomy of the parts concerned. But anatomy was not then studied as it now is, and the benevolent object of the governors would have been more effectually attained had they rescinded an order of the Court issued a short time previously, that "no dead corpse should be dismembered."

The first impulse in the right direction, in the performance of lithotomy, was given by a French priest, Frère Jacques, in 1697, who acquired an European fame; but it remained for Cheselden to place it on the sure foundation which I have indicated; and it is much to say of our great Surgeon, that his work on the subject, published in 1723, deserves to be a text-book still, and that in every essential particular this operation remains what he left it a century and a half ago. What worthier subject, then, could be found for the sculptor's chisel, or to be held in cherished remembrance by the old St. Thomas's students? and beautiful, as a work of art, is the marble effigy of this fine old English Surgeon which now graces our entrance-hall—the gift of those who delight to honour the great and good associated with their Hospital and school.

At this period of our history a regular registry of the Surgical pupils was kept by the Apothecary, and the useful order of dressers existed. It may not be uninteresting to the gentlemen now holding that responsible office to learn that they were then called "Cubbs" in our establishment.

I have said that we can boast of many names of celebrity in the annals of our Hospital. Thus, one of our Physicians, Sir F. Prujean, received special marks of honour at the Court of Charles II., whose queen he attended in a severe attack of fever.

Dr. Richard Mead, whose courtly bust (also the gift of our old students) presents an interesting contrast to the artless and almost rude attire of his great Surgical colleague, was an accomplished Physician and a man of letters; and whilst an officer of our Hospital he condescended to read lectures on Anatomy to the Company of Barber-Surgeons. Engaged in a large and lucrative practice, the Medical attendant of Queen Anne in her last illness, and the Court Physician of George II., we learn that he was "highly respected, and as the patron and friend of the learned universally admired."

It is recorded that Cheselden gave lectures on Anatomy and Surgery at the Hospital, but it was not until later—viz., in 1768, that Joseph Else, one of the Surgeons, was officially appointed to lecture; and it may be said of him that he was the founder of the systematic teaching of Anatomy in St. Thomas's Hospital.

Dr. Mark Akenside was likewise an accomplished Physician, and, in addition to being one of the officers of our Hospital, held the highest Court appointment at the commencement of the reign of George III. But his reputation as a poet has survived his Professional fame, and there is much of elegance and rhythm in his verses, and his language is choice and classical; but few can read his "Pleasures of Imagination" without some sense of weariness at the pompous and somewhat pedantic diction in which his really beautiful imagery is clothed.

In 1770, Dr. Fordyce, whose portrait we possess, set us an example of diligence which I think few of my colleagues would be disposed to follow. He used to lecture daily on three subjects—viz., Chemistry, Materia Medica, and the Practice of Physic—and these lectures, given at his own house, were delivered in three successive hours, commencing at seven o'clock in the morning.

The names of the first Lister (whose aged, benevolent face I can just recall) and of Wells (the author of the elegant and conclusive monograph on the "Formation of Dew"), of Currey, Chandler, and the Clines, bring me to the period of my own personal recollections, when my honoured master, Mr. Travers, with Mr. Green and Mr. Tyrrell, were the Surgeons, and Dr. Williams, Dr. Elliotson, and Dr. Roots were the Physicians of our Hospital. They are all gone, and I cannot but record the great esteem in which they were held by all who knew them, as men of high scientific attainments, whose teaching and example have left their impress on the minds of many scattered throughout the length and breadth of this land. Of my own more immediate contemporaries, some are gone and some still survive, though they have withdrawn from amongst us. The grave has scarcely closed over one; and many will have learned with grief, but scarcely with surprise, of the death, one short week since, of Samuel Solly. I have known him since my boyhood, and we have been allies and colleagues throughout life; and I cannot recall a single hour during which the harmony of our intercourse has been interrupted. His compulsory retirement from Professional duties, in consequence of ill-health, occasioned our premature loss of his services here; and he carried with him the sympathy and kindly feeling of all his colleagues.

I may, perhaps, be permitted to express the excusable pride I feel in having now associated with me many of my former pupils, who have already made a name for themselves in the world of science; and even in the rising generation, St. Thomas's has no need to be ashamed of her children; and we both hope and expect she will rear many worthy successors to those I have named.

The last few words I have spoken remind me of the change which has come over the guiding principle of election to the offices of this Hospital since I was an articled student. Then an apprenticeship to one of the Surgeons was deemed a necessary first step towards obtaining the appointment of Surgeon to the Hospital; and I have, naturally, a vivid recollection of all my contemporaries, who were competitors at the early start. Just as on the racecourse, one by one fell away from various causes, and speculation as to the future was often falsified by unredeemed promise or inability to stay. He who had the good fortune, as it was mine, to get an early start might hope to win; but the necessary exertion was arduous and unremitting, for since the age of twenty I have not ceased to take part in the teaching, though not the less a learner, in our Hospital school. I mention this circumstance to exemplify the trying nature of the long probation and deferred promotion which attended this arrangement.

The principle of free choice which now prevails, partly the cause, and in part the consequence, of the comparatively obsolete usage of appprenticeship, carries its own recommendation with it; yet I am free to admit that my conservatism does not allow me to dismiss this custom of other days without a word of apology for it. If we may judge by results, certainly the names of my immediate predecessors and teachers, and their contemporaries at the sister Hospital, where the same usage prevailed, is some justification of that system. The training of the young men who claimed their privileges from an apprenticeship of six years at the Hospital, was such as to constitute a special preparation for their future duties, if they were naturally qualified to avail themselves of their peculiar advantages. Living for a lengthened period in the dissecting-room and wards of the Hospital, they could not fail to acquire that familiarity with their after-engagements which no other training could so well supply. Indeed, the change in the practical working of the old system of apprenticeship is not, to my mind, an unmixed advantage. When Practitioners in the country conscientiously performed their duty towards their apprentices during their more protracted sojourn with them, our students used to come to London already in possession of preliminary information, and what I may term conventional details, in their Profession, which are not so well acquired in our schools.

But times are changed, and with them the rising generation; and I neither expect nor desire to see a recurrence to the bygone system to which I have referred. Yet I would venture to plead on behalf of the students whom we educate at our

school;—other things being equal, their prior claim to preferment is just and natural, and should never be ignored. In reputation, a Hospital and its school are essentially linked together. The indirect advantages to the public derived from the latter are scarcely subordinate to the benefits directly flowing from the former; and the fame of a Hospital must ever be commensurate with the reputation of its officers, as trustworthy teachers of the scientific practice of their Profession.

But both teachers and pupils have their special responsibilities, and by their reciprocal fulfilment only can successful teaching be secured. I believe that the public generally have but a very imperfect appreciation of the complex and extended course of instruction which Medical education now embraces; and it is this increasing complexity which continually enhances the difficulty of the problem that is presented by the necessity of having some definite limit to the acquirements which a qualification to practise demands. It is not given even to the most gifted to become proficient in all the required subjects within the limit of time which is assigned to study; and, therefore, it is obvious that a standard must be adopted which shall supply a numerical sufficiency of qualified Practitioners. Whilst it is my sincere conviction that the College of Surgeons has honestly and faithfully fulfilled its functions, I have hailed with satisfaction, as I have sought to forward by my feeble influence, that scheme of conjoint examination which offers to the candidate one common portal by which he may enter the Profession with a qualification to practise, whilst it leaves to our English colleges and universities the special privilege of conferring honorary degrees, after exacting proof of more advanced attainments.

I said that teachers have their responsibilities; and, without presuming to dogmatise on this subject, I will briefly indicate the method which my own experience has taught me to regard as the most profitable, if not the most acceptable, mode of imparting Professional knowledge. Teaching may be either exhaustive or suggestive. The former method, even if well and fully accomplished, can but instruct the student in facts, and supply him with reasons—good or bad—for the conclusions from these facts. But this is not education, which consists less in supplying the learner with thoughts than in stimulating him to think for himself; for

> "——Knowledge dwells
> In heads replete with thoughts of other men;
> Wisdom in minds attentive to their own."

Bishop Butler has remarked that the best writer—and, *à fortiori*, I should say the best *vivâ voce* teacher—is he who simply states his premises, and leaves his readers to work out the conclusions for themselves. It is true that much of our teaching relates to facts; but these facts are, or ought to be, associated with principles, and the business of the teacher should be, in my apprehension, to exercise the mind of his pupil to work out for himself the relation between a principle enunciated and the facts by which it is supported. Trituration and digestion are as essential to healthy assimilation by the brain as by the stomach; and I am disposed fully to concur with an apologist of Coleridge's disjointed style of writing, when he eulogises its highly suggestive character, as contrasted with such exhaustive teaching as alone will satisfy him "who thinks that the epithets *teres atque rotundus* are the highest that can be applied to a scientific work, or who expects an author to furnish him with a complete system, which he can carry away in his memory, and, after it has received a few improvements from himself, may be hawked about to the public or to a set of admiring disciples." I cannot help lamenting that there is much in the present method of teaching which is subversive of this suggestive principle for which I plead. Circumstances have, no doubt, conduced to this result, and chiefly the multitude of subjects crowding upon the attention of the student, which create a demand for the supply of information in such a form that it can be appropriated by an exercise of memory, without the invigorating effort which suggestive teaching stimulates. The results of such mechanical learning are not satisfactory, and the stereotyped acquirements of our students have induced the examining bodies wisely to modify their examinations, by rendering them as practical as possible, in order that the possession and exercise of a retentive memory may not be the chief qualification on which a student can rely for obtaining his diploma.

If, then, it be the duty of the teacher to stimulate the student to think for himself, it is no less incumbent on the latter to cultivate a spirit of self-reliance in learning his Profession. He must, in short, educate himself, with the assistance and direction he will obtain from his teachers; and he will find that an infusion of enthusiasm into his work will impart a pleasurable life and activity to the laborious details of his scientific pursuits, and render attractive that which would be otherwise irksome or repulsive in his studies.

I would now address a few words especially to those who are about to commence their Hospital career. Your sojourn amongst us is fraught with momentous consequences to you, both moral and intellectual. The new life you enter upon and the new scenes you become conversant with must leave their lasting impress on you for good or evil. Familiarity with suffering and death in all their varieties and forms constitutes a school of moral training which cannot fail to refine or to debase the moral sense, to strengthen or to enervate the character. Your future career will afford ample opportunity for applying the lessons of sympathy here inculcated, and of patient forbearance and gentleness in your relation with the sick and sorrowing, with whom so much of your life will necessarily be spent. These are grave responsibilities which will be yours, the importance of which you cannot too soon realise—confidence of the most sacred character entrusted to your keeping, and opportunities for good beside and beyond your mere Professional duties—from availing yourselves of which, no false humility, no mistaken apprehension, should tempt you to shrink; and which you cannot evade without a compromise of truth, if you indulge the restless hope of restored health or of prolonged life when you know that hope is vain. It is unnecessary I should pursue this subject further. If you obey the promptings of your better nature, and speak the truth with gentleness and candour, you will have your reward in peace of conscience; whilst it is beyond your ability to estimate the consequences to the dying sufferer who hangs upon your lips.

If I have paused to point out these as some of the moral lessons to be studied here, it is scarcely requisite that I should dwell on the necessity of improving every opportunity of mental culture now placed within your reach. The book of nature is spread out before you in the dissecting-room, the laboratory, the wards, the museum; its pages are to be supplemented—not superseded—by the teaching and recorded opinions of other interpreters of the great original. Drink deeply at the fountain-head, and gradually each new phenomenon or insulated fact will assume its true relation to others, as you view them, blending harmoniously, and acting under laws alike grand in their conception and simple and uniform in their operation, and thus bearing the impress of the Infinite intelligence and goodness which planned them. It is thus, I venture to believe, that you will best cultivate the self-reliance and freedom from the slavery of authority which are such essential qualifications for philosophical inquiry, and which are quite consistent with—indeed, ought to be the offspring of—true humility; for that independence of character which has taught its possessor to scorn servile imitation, and to bow obsequiously to no man's dictum, should prompt him likewise to follow meekly the steady light of Truth, and to be the ever-ready servant and interpreter of nature. I do not say your path is easy; but you may make it pleasant by opening wide your heart in sympathy with your fellow-men, and by cultivating your Profession in an enlarged and philosophic spirit, instead of resting satisfied with the minimum of knowledge as your trading capital, acquired only for the pecuniary return it promises. You owe this to the noble calling you are about to follow; for, though I am aware that it has been said—and, I fear, with some truth in its application to the present time—that the "age of chivalry is gone, and that of sophisters, economists, and calculators has succeeded," yet is my faith unshaken in the elevating tone and influence of scientific pursuits, and in the full, though tardy recognition of their claims, at length forced on the promoters of public education—unshaken, also, in the manly sentiment and independent principle which pervade the mass of my Profession.

A few words more of personal application I am constrained to speak to my younger hearers, who will bear with me if their triteness deprives them of their relish. Most of you must be aware that your sojourn amongst us entails sacrifices on those who have sent you here—sacrifice in the anxiety consequent on your being thrown alone amid all the temptations, frivolities, and dissipation of this great city, and a pecuniary sacrifice for your best and permanent interest. Confidence is placed in your redeeming the tacit or spoken pledge of honest and upright conduct. Will you abuse and betray that trust? Yet wasted time and misemployed talents, and the indulgence of low tastes and vicious habits, will be such betrayal, and bring grief and disappointment in return for self-denying love.

In fulfilling your obligations I would simply ask you to be manly; and I will tell you briefly my interpretation of that

comprehensive word. I should be untrue to my own instincts and to the position I occupy as President of the United Hospital Athletic Club, if I did not bid you cultivate manly exercise and sport. I admire the strong arm, the swift foot, and the bold bearing of the athlete; yet these pastimes must be your recreation, not your occupation. But there is a higher phase of manliness to which I especially refer. It is manly to be severe with yourself, and to deal lightly with the failings of your fellow-men. It is manly to admit rather than to justify either ignorance or error. Self-sacrifice is manly; but there is no element of manliness in the untruthful, the selfish, and the impure mind. It is both gentle and manly to esteem others better than yourselves, and to claim the respect which is your due, by that courteous consideration for all around you which never fails to characterise the true gentleman. Above and beyond all, if you value your Bible, it is manly to avow it, and, by patient endurance of contradiction and consistency of conduct, to prove that your faith is a real and living principle, regulating primarily your own deportment, and thus influencing your relations to all around you.

"To thine own self be true,
And it will follow as the night the day,
Thou canst not then be false to any man."

But it is time that I bring to a close my brief tribute to the memory of the past, and the vindication of my confident hope in the future, of our ancient and royal foundation.

Once the refuge of a few obscure monks; now reopened amid the pomp and glittering pageantry of State officials, and graced by the presence of the noble and gentle in the land, and of our beloved Queen who sympathises in the early interest the good Prince Albert took in our future home—nurtured erst in poverty, and restricted in usefulness; now possessed of a princely income, and folding within her wide-spread arms the destitute sick and maimed, whose only passport is suffering and want—yielding formerly her pittance of empirical skill and nursing to the few who sought it; now rich in the memory of so many whose labours within her walls have indelibly allied their names with some of the most enduring achievements of Medical science; and, shall I not add, proud of association with the imperishable name and work of the self-denying and gentle Nightingale.

Such, in brief, is the history of this noble institution, and such are the children she has nurtured, who have repaid her fostering care by shedding a lasting lustre on our Profession.

And what is the moral to be laid to heart from this history and these names? Shall *we* shrink in timid indolence from sustaining the weight of reputation thus transmitted to us? Shall we plead, with deprecating humility, that "there were giants in those days," and sit down in listless indifference beneath the laurels they planted? Nay; net so. Let each and every associate in the work, with unselfish and untiring energy, devote himself to his allotted task. Let the substantial token of our affection for our *Alma Mater*, placed within her chapel walls, be the pledge and symbol of that harmony of action for the common weal, which no jarring note of discord shall disturb. Let private advantage and individual preferment ever yield, as in truth and honesty they should, to the fulfilment of the sacred trust to which every officer of this establishment is pledged when he takes office here. Let this be done earnestly, heartily;—I speak, Sir, as one who has journeyed through weary years of discouragement, and is permitted, by grace and not by right, to tread a few steps within the boundary of the Promised Land;—let this, I say, be done earnestly and heartily, and who shall gainsay the confident anticipation which it may be, perchance, my happiness to witness, though not to share in, that our ancient foundation, both Hospital and School, shall emerge from its temporary eclipse, to shine with more than pristine brightness?

And, standing thus on this border-land, once more, beside the old, familiar river, from whose slimy bed this stately edifice has risen as if by magic—surrounded, too, by my trusted colleagues, and many familiar faces which remind me of our earlier and happy association as pupil and teacher—imagination portrays for me, without an effort, the expanding vista of an illustrious future, worthy of such a history and such a habitation.

The new Hospital for Women at Birmingham was opened on Monday last, with a crowded waiting-room, and a number of most interesting cases presented themselves.

The introductory meeting of King's College Medical Society will be held on Thursday, October 12, in the library, King's College, Dr. Rutherford, President, in the chair, when Dr. Cotterill will read the address.

ABSTRACTS OF

THE INTRODUCTORY ADDRESSES DELIVERED AT THE OPENING OF THE MEDICAL SCHOOLS.

CHARING-CROSS HOSPITAL.

The Introductory Address at this Hospital was delivered by Dr. Green. The lecturer, in the first place, alluded to the irreparable loss the Hospital and School had sustained in the death of the late Dr. Hyde Salter. He then proceeded to review the great improvements which during the past year had been made in the Hospital and School premises—the new wards and the increase in the number of beds, the new dissecting-room, library, post-mortem room, and physiological laboratory; and the valuable additions which had been made to the staff. In seeking for a special subject upon which to address his audience at the commencement of another Medical session, Dr. Green said that that which appeared to him to be the most deserving of attention was the necessity which existed at the present time for a more *practical* study of Medicine and Surgery. The time was gone by when a few hours spent in the dissecting- and lecture-room, and the commission to memory of a small volume of multifarious facts, were all that was required of the Medical student. The Medical Profession was essentially a practical one, and Medicine, no less than Surgery, demanded a practical education. The lecturer then proceeded—

It has been argued, and students have left their Medical schools with the impression, that a practical knowledge of our Profession is readily to be acquired after going into practice—that the engagement in the attempt to treat disease brings with it the knowledge which it is necessary to possess. I do assure you, gentlemen, that nothing can be more erroneous. I do not mean to deny that an educated student—a man well grounded in what we may call the *elements* of Medicine and Surgery—may, and does, derive very much additional knowledge from the practice of his Profession; on the contrary, an educated man engaged in practice is in the most favourable position for acquiring an increasing store of knowledge. He starts upon a firm basis, and one upon which he can, year by year, continuously and successfully build. But I do maintain that if a man, upon leaving his Hospital studies, does not possess a large amount of practical knowledge—knowledge, remember, which can only be obtained by systematic work in the wards and in the out-patient room—the chances are very much against his acquiring this knowledge after he has once commenced to practise. If he does not acquire such essential elementary accomplishments, for example, as how to put up a fracture, how to palpate the abdomen, how to distinguish between systolic and diastolic cardiac sounds, or how to recognise urinary deposits under the microscope whilst he is a student, the probabilities are that he will never do so at all. It is to prevent the possibility of the student finding himself in such an unenviable condition, that the examining bodies have recently made changes in the curriculum and in the character of the examinations; and it is in order to stimulate you to do your best—to prepare yourselves for all that will be required of you—that I have ventured to bring this subject before you on the present occasion.

After alluding briefly to the nature of examinations, Dr. Green continued—Be assured, then, gentlemen, that what will be required of you is, such a knowledge of your Profession as is not to be obtained from the attendance upon lectures or from the perusal of books, but can be acquired only by the *practical* study of disease. This will be required of you not only by your examiners, but also by the public. The time, we believe, is rapidly passing away when mere Professional tact will suffice to insure success in the practice of our Profession. Tact must always be an important element in the acquirement of success; but as education advances, and as Medicine and Surgery continue to approach that high position which they so justly deserve, we shall find that there is an increasing demand for real knowledge, and that tact without this will no longer be accepted.

In order to obtain this knowledge, the lecturer impressed upon the students the necessity of availing themselves of all those opportunities which, in consequence of the regulations passed by the examining boards, were presented to them; of holding clerkships and dresserships with the determination to acquire from them all the practical knowledge which the

filling of such offices is so eminently calculated to convey; that the various means provided for practical instruction should be utilised, and that these should no longer be regarded as optional, but as *necessary* parts of education.

He then pointed out the importance of students studying disease *for themselves;* and said—If I mistake not, the knowledge we derive from even one half-hour devoted to the careful and painstaking study of a single patient will be more valuable to us than many hours spent in listening to the teaching of others. It is this kind of clinical work which appears to me to be the great want in our education at the present day. We do not, I think, sufficiently recognise its importance, and hence, except in the case of those comparatively few students who are fortunate enough to secure resident Hospital appointments, and of some of the more studious clerks and dressers, it is almost unknown. We do not mind going round the wards or into the out-patient room and listening to the clinical remarks of our teachers, but we do not consider it at all necessary to examine the patients for ourselves, and, even if we are asked to do so, we perhaps hardly take the trouble to do it in anything like a thorough manner. And yet surely it is from such study as this that we are most likely to derive that practical knowledge which we shall stand in need of when we are thrown upon our own resources. How many hours of our student-life do we spend in the dissecting-room, studying the dead body? Ought we not to spend a more proportionate amount of time in the wards, studying the living body?

The lecturer then remarked upon the insufficiency in the amount of time set apart in the curriculum for systematic clinical work; and continued—Examine the patients for yourselves; form your own conclusions as to the nature of their diseases; decide upon the plan of treatment you would adopt, and make your own prognosis. And by all means be very thorough in what you do. Spare no pains and grudge no time in learning all that you possibly can of the case you are observing. Remember that more mistakes are made from want of care than from want of knowledge. Do not attempt to observe too many cases at a time; one done well is far better than a dozen done incompletely. Watch the same case carefully from day to day; note the natural course of the disease, and the way in which it is influenced by remedies; and if it should terminate fatally, let nothing prevent you being present at the post-mortem examination.

The lecturer concluded by an allusion to the rapid advances which are being made in the knowledge of pathology and therapeutics, and by an exhortation to the students to use all diligence to acquire during their student-life what in the present age would be required at their hands.

GUY'S HOSPITAL.

The Introductory Address was delivered by Dr. Oldham, of which the following is an abstract:—The last thing which a student will lack at Guy's is opportunity. But he has to apply his mind to the acquisition of a large section of knowledge; and, above the industry it demands, there is that higher knowledge—the government of his own mind. To train, refine, and discipline the intellect, and to keep it in allianee with the moral sense, is what a student is urged to do, and he must do it for himself. Two elemental faculties of the mind—by which he can question its operations and control them by his will—enable him to comprehend the power he possesses of self-culture; but to bring these faculties into constant play, so as to know the pursuits and progress of the mind, and to judge impartially of them, needs vigilance and resolution. The fact of a student being placed here without restraint, increases the importance of this self-protective habit. The mind is never at a standstill; and it cannot be neglected for any time and then be found the same pliant instrument it was before. We must recognise innate differences in mental capacity; and Medical science and practice gain by variety of power. Sometimes a student is discouraged in being distanced by the rapid successes of a brilliant intellect; but experience shows that, taking the resources of the whole man, the ultimate success of those who have striven their utmost to discipline their minds, enlighten their moral nature, and learn their Profession is remarkably equalised.

The study and practice of Medicine afford scope for mental culture and urgent motives for its exercise. How imposing is the portal through which you first enter, and how unlike the drudgery of a reiterating act! Your minds are at once engaged in the study of the physical sciences, or a series of facts of infinite variety and absorbing interest—one set leading on to others—and then their order and rule of law. You require to know them, where they touch and expound Medical science. Their study is a leading element in a liberal education, teaching the mind to lay well hold of fact, storing it with ideas, imparting intellectual tone and a high discipline.

There is an obligation on us all to help to raise the social status of our Profession; but all other expedients are superficial compared with the great one of a more extended and elaborated preliminary education. It is from the highly cultivated men among us that our position—such as it is—is maintained; and when from this rank we see one conspicuous as Surgeon, teacher, author, for high-mindedness and a polished courtesy, we may indeed rejoice, as in the instance of Sir James Paget, that the highest honour which in this country is awarded to a practising Surgeon or Physician should have been conferred on him.

The number and diversity of the subjects which are included in the study of Medicine are favourable to mental activity, and diligence is essential to master the details. The senses, too, are quickened by them, and the training they go through, not only by direct and combined exercise, but by the aid of various instruments, is hourly exemplified. You are required, in a great measure, to work out by your own observation your knowledge of disease, and there is no man so hopelessly bewildered as he who, when he is called upon to treat disease, has to turn from his patient to a description in a book. You are not, however, to be devoted to an unrelenting toil. We who know the laws of health proclaim that to keep the mind in a jaded state is to enfeeble it, and recreative pursuits, well selected and subordinated to your main pursuits, strengthen the body and refine the mind.

It is in clinical study that all you have acquired is to be condensed; and you cannot exaggerate the importance of carefully reporting cases. It brings you, also, into close relation with your teachers, who soon see what of earnestness there is in you. In searching into the causes of disease you first see how character is unmasked; and in this respect the Hospital is a large confessional, in which you are invited to observe the promptings of conduct and the deepest recesses of the heart. You here, also, learn something of the lot and condition of the poor, who, as a rule, will command your respect. It is in the lying-in charity that we see the poor in their worst attire but their truest aspect; and there in times past I have often witnessed the greatest suffering with the least complaint, the purest affections in the lowest hovels, the deepest gratitude for the smallest benefit, and abject poverty with the generosity which gives the most of what it least can spare.

A powerful motive for Professional culture ought to arise from your anxiety to repay the expectations of those who send you here; and another, to enable you to meet those momentous incidents of practice where death and life are trembling in the balance; and, lastly, you are urged as a supreme duty to adore and magnify the Giver in the cultivation of His highest gifts.

KING'S COLLEGE.

The Introductory Address was delivered by Professor Rutherford. After stating that the chief objects sought for by those who profess Medicine are to preserve health and to cure disease, Dr. Rutherford pointed out that a knowledge of the healthy state and of the conditions necessary for its preservation must necessarily precede a knowledge of the diseased state and the means required to rescue an individual from it. After referring to some of the attractive features of biological science, he stated that, although Medical studies deal to some extent with metaphysics, they nevertheless chiefly concern the two great factors of the physical world—to wit, matter and energy. "The first great idea which those who enter upon the study of living beings should lay hold of is, that the matter and energy which are found in them are derived from the dead world around them. Things that live, although they can transform matter and energy in the most marvellous ways, can neither create nor destroy them. A continual stream of matter and energy flows from the dead into the living world, serves its time there, and returns to the dead world again. . . . . Seeing that the matter and energy found in the organic come from the inorganic world, it might be anticipated that the changes through which they pass in the world of life are subject to the same laws which govern them in the world that is lifeless. Such appears to be the case. The law that

rules the chemical changes taking place in a muscle does not differ from that which regulates the chemical changes that go on in a steam-engine. The laws that preside over the movements of the blood are just those which control the movement of any other liquid. The metamorphoses which matter and energy undergo in the living world are many of them infinitely more complex and difficult to follow than those through which they pass in the inorganic world. It is therefore necessary that one should be acquainted with the character of the phenomena found in the inorganic ere we attempt to follow or comprehend the more intricate nature of those found in the organic kingdom. In short, the chemistry and physics which immediately concern lifeless things must be studied before the chemistry and physics which immediately apply to things that live can be comprehended. In other words, a knowledge of inorganic chemistry and physics must be acquired before organic chemistry and physics can be understood."

He then, with the aid of some familiar illustrations, explained the methods of observation and experimentation by which facts in natural science are ascertained, and pointed out the disastrous results that follow hasty observation, careless experimentation, too rapid digestion of facts, and the substitution of fiction for truth. The truly scientific method of investigating the events of life was begun three-and-twenty centuries ago by Hippocrates, and fortunate would it have been had the path which he opened up been pursued; but the dark ages enveloped it in obscurity, and it was not fairly reopened until our immortal countryman Harvey found his way into it, and Bacon shed the light of his genius upon it.

In indicating the present position of Medicine, the lecturer stated that in inquiries regarding living things in a state of health or disease, students should particularly attend to—1. Their physical or structural composition. 2. Their chemical composition. 3. The functions or actions which they perform. He stated that the four great essential subjects in Medicine are physiology, pathology, hygiene, and therapeutics, and proceeded to explain what was meant by these subjects, and to give an account of their present position. "The most advanced part of physiology and pathology is that which refers to the structural composition of the body. Our knowledge of the chemical composition of the body is not so advanced, because of the excessively difficult nature of the inquiry. Very much has been learned regarding the actions of the body in health and disease; but although we know a great deal regarding these actions, we are far from having ascertained all about them. No stone, however, is being left unturned. The secrets are being sought out with the aid of the most refined physico-chemical instruments and processes.

"The causes that give rise to the phenomena of life have, ever since the first glimmerings of science, formed a deeply engrossing subject for inquiry; and assuredly, as time runs on, the interest and importance that attach to such a question, so far from diminishing, continue if possible to increase. For centuries there has been a keen controversy between the vitalists and physicists. The vitalists first took up the ground, and ascribed the operations of the body to spirits—good during health, and evil during disease. Hippocrates, some three-and-twenty centuries ago, started the hypothesis that the actions of the body are presided over and directed by a spirit termed Nature. Aristotle called this spirit Vegetative Soul; and said that it is common to all plants and animals. In modern times this spirit, or principle, has received various names, and its existence is still believed in by some physiologists. By them it is looked upon as directing the various operations necessary for the life of plants and animals. In opposition to this idea, many physiologists have come to the conclusion that the existence of such a spirit is a myth; and they believe that the ordinary vital operations of plants and animals are due to the ordinary attributes of matter and energy. There has been some extravagance on both sides. Some vitalists have called the holders of the physical view materialists, even if they refuse to believe that a cabbage is possessed of a vegetative soul; alleging that if we deny the existence of such a soul in a cabbage, we must deny the existence of a man's rational soul, and even the existence of a God. On the other hand, some upholders of the physico-chemical views have absurdly maintained that the properties of matter and energy may be regarded as sufficient to explain all mental phenomena. The controversy is still unsettled."

In alluding to the spiritualists of the present day, the lecturer said—"We have been informed by a noble lord that a certain Mr. Home is able to defy the law of gravitation to an extent which is, to say the least, *very* remarkable. We have been seriously told that he can fly through the air by a mere effort of his will. The number of those who possess this marvellous power would seem to be *very* limited; and it is fortunate for cab proprietors and railway shareholders that the number is likely to remain a small one. As yet Mr. Home and his disciples do not seem disposed to make a public exhibition of their marvellous powers. Probably they still continue to ride in omnibuses, cabs, and railway carriages, and find it safer to trust themselves to such modes of conveyance rather than to their newly discovered mode of aërial flight. Spiritualism of the sort now fashionable is not so very novel as the spiritualistic media would fain have us believe. Within the memory of most people miracle-workers have been ever and again starting up. The tricks of the mesmerists, spirit-rappers, and table-turners made dupes of a great many simple-minded persons. Possibly the media have now become so dexterous that they can make dupes of persons whose minds cannot be exactly charged with simplicity; but, nevertheless, it is probable that ere long their tricks will be exposed, just as all similar tricks have been."

Hygiene, the lecturer said, is in a state of considerable advancement. We know well the ordinary conditions necessary for preserving health; but we have yet much to learn regarding measures sufficient to protect man from the malignant agencies that produce disease. Nevertheless, the great success of vaccination leads us to expect great achievements in this direction.

He explained many of the reasons why therapeutics are in a state which, though rapidly improving, is still far from being satisfactory. "The mechanical appliances adopted by the Surgeon are, on the whole, eminently satisfactory. Nothing can surpass the cunning and dexterity with which he uses his knife to remove a diseased member. Still, in the majority of cases, the use of the knife in disease implies the confession that the Surgeon has failed to arrest the diseased condition of the part. Both Surgeons and Physicians experience extreme difficulty in exercising a really curative influence over disease. Patronius Arbeter was wrong, however, when he said that 'a Physician is nothing but a satisfaction to the mind.' Happily, there are many diseases which can be completely cured, and a great many more that can be influenced for good, by the use of remedial measures; but still the achievements of Medical men are circumscribed by a circle which, though ever widening, is yet a narrow one. The chief reasons for this limited success are, that we are still unacquainted with many of the healthy actions that take place in the body. The causes of many diseases are as yet unknown. It is not yet possible to ascertain precisely what parts of the body are affected by some diseases. Obscurity still hangs over the significance of many of the altered bodily actions that are observed in disease. Some of these actions have a fatal, others have a beneficial, tendency, and the difficulty is to know which to favour and which to repress. The actions of many drugs, and other remedial agents, are only partially known, and even where these actions have been ascertained there remains the difficulty that the precise influence of the drug differs in different individuals, and even in the same individual at different periods of his life. But we are not possessed of the power of ascertaining beforehand what are all the respects in which one man differs from another, and, therefore, we are not by any means always able to predict what will be the precise influence of the remedial measures which we adopt. Hence it is that Medicine does not present the characters of an exact science. We cannot, in many instances, say what is or what will be, nor can we always with precision wield those powers which we already possess for influencing the constitution of the body and its actions. We have, for the present, to weigh probabilities, and to hit the mark as nearly as we can. This fact need not, however, dismay those who are entering upon the study of Medicine. She is daily becoming more exact, and the pleasure and satisfaction which result from an honest and earnest attempt to render her more scientific quite outweigh any disappointment one may be inclined to feel at finding that she lacks much of that precision which gives such charm to physics, chemistry, and mathematics. The great fact to be remembered is, that Medicine must be pursued in a scientific spirit. Only by cautiously comparing and weighing all the facts of any case, and coming to just conclusions from these, can we hope to advance Medicine. We have to bear in mind that whenever we give a man a dose of Medicine we really perform an experiment—an experiment which is important to the person and important to the science of Medicine." The lecturer said: "Observe all the conditions of the experiment, and write them in a book, so that they may never be forgotten by your memories, which are treacherous at the best. Old Hippocrates showed us a splendid example. He wisely saw that to get at accurate facts is the backbone of all

science. He did not content himself with remembering his facts: he wrote them on tablets, so that they might never be forgotten or altered. If you will adopt the Hippocratic plan—if you will be careful in ascertaining the facts of a case, and cautious in the inferences you draw from them, you will in due time add many a stone (perhaps many a precious stone) to the as yet unfinished temple whose portal you are now entering. The temple is, indeed, far from being complete. Many niches are still empty; many stones lie strewn about; many foundations have yet to be laid; yet all is activity. The stones are getting into their places, the walls are surely rising; here and there, indeed, a gilded pinnacle crowns a wing. Your ears may be at first somewhat dinned by the noise, your eyes a little distracted by the hurryings to-and-fro of the workmen and their machinery; but you will soon forget the noise and the hubbub when you earnestly join in helping to rear an edifice so truly noble as that of Medicine.

"A great and attractive feature connected with the prosecution of Medicine is the open-handedness that everywhere prevails with regard to discoveries. The moment a Medical man makes a discovery, however valuable, he tells it to all the world, so that everyone may have the advantage of any good contained in it. In consequence of this absence of secrecy, it is in the power of everyone to acquaint himself with and to adopt any measure that is proposed for the treatment of disease. Nevertheless, although there is free intercourse between Medical men in every part of the world, Medical science presents somewhat different aspects in different countries. Diseases which are rare in this are sometimes common in other lands. The type of a disease which may be rare here may prevail elsewhere. The mode of treating some diseases differs in different schools. The methods adopted in the tuition of Medicine are not everywhere the same. It often happens that certain schools are famed for the facilities with which certain subjects can be studied; for example, although the Surgery of England is in many respects decidedly superior to the Surgery of France, nevertheless students have greater facilities for the practice of operative Surgery in France than they have in England. Although physiology and pathology are in many respects just as advanced in England as they are in Germany, nevertheless many inquiries connected with these subjects can be prosecuted in Germany with less expense and greater facility than in this country; for in Germany the Imperial powers liberally support physiological and pathological laboratories, and happily in that country physiologists and pathologists are not pursued by a herd of anonymous scribblers, who, while they wink at all manner of sports, however cruel and meaningless, are ready to thrust their waspish stings into anyone who dares to decapitate a frog in the interests of the healing art. Seeing that the aspects of Medicine are not everywhere alike, it is very important that you should visit different schools of Medicine in order to get an education as comprehensive as possible. It is well to visit the chief schools of France and Germany. The Germans and the French have much to learn from us, but at the same time we have not a little to learn from them."

The lecturer concluded with some practical remarks concerning the mode of study which should be adopted by the students.

THE LONDON HOSPITAL.

The Introductory Address was delivered by Dr. J. W. Little, who said:—Revolving in the mind the relationship of the past and the present stirs the thought as to the future of the Hospital, and of its youngest members in particular, and of the Medical Profession itself as it may be influenced by them. We are tempted—"*Laudator temporis acti*"—to look back to the moment when, forty-three years ago, we for the first time sat upon the benches of the old anatomical theatre, listening to the introductory lecture of that day, delivered by Mr. Headington, at the commencement of his annual course of anatomical lectures. We were then freshly entered, like so many of you, gentlemen, this day. The first thought, and that a painful one, is of how few of the then young faces, soon to become familiar ones, which glowed with intelligent emotion at the eloquence of a Headington, are now to be seen. One at least is here—Mr. Curling, who by his persistent exertions in the cause of practical and scientific Surgery, his researches in pathology, by his readiness to adopt all novelties that promise to be beneficial to humanity, has shown the present generation of students how the advantages of the London Hospital can best be utilised. He can recall, we doubt not, the glories of the discoveries and improvements of the previous forty years, as related to us in language unsurpassed for accuracy and for freedom from exaggeration; in language pure in diction, noted for clearness, quietness, and perspicuity—language, indeed, to which we, unhappily, can make no approach. Mr. Headington was an accomplished and sound Surgeon, who had more the appearance of the learned and well-bred Physician of that day. He early handed over the operating-knife to the able hands of Mr. Luke, then his Assistant-Surgeon. The greater number of my hearers may never have heard the name of Headington: in fact, he lived, he practised, and died in a part of London—Spitalfields—then wealthy and of comparatively fashionable resort. It has been a loss to Surgery that he was not addicted to spreading his fame by any writings; but it is a sufficient proof of the distinguished hold he possessed of the respect and affection of his colleagues and pupils, that he was one of the few whose bust and portrait adorn the building in which we are now assembled.

Headington made known to us the triumphs of Hunter, Pott, Jenner, Baillie, Haller and Bichât, Cavendish and Lavoisier, Dalton and Davy. The theories of Stahl, Cullen, Brown, and Broussais were then first brought to our knowledge; we learnt then how great had been the progress of the Medical art during the previous forty years.

It may on this occasion be not merely a matter of personal interest to ourselves and any contemporaries—Medical antiquaries as it were—to note briefly some of the men whose merits were eulogised by Headington, and who almost constituted in themselves standpoints in Medicine and Surgery, and the allied branches of knowledge, during the forty years preceding Mr. Headington's address. It is too easy, perhaps, to fall into the historic vein.

The beginning of the period we are considering may be roughly stated as having been ushered in by two important events in the world's history, the American War of Independence and the great French Revolution. The consequent agitation of men's minds, as well as the acquisition of a new power supplementary to man's individual physical force, in the application of steam to the purposes of mankind in branches of the arts into which it had not been previously introduced, were probably all momenta aiding the progress of man in the departments of science and learning embraced by the cultivator of Medicine. In this country eminent Medical men worked on in our thoroughly English way, little aided by State assistance, except in the happy circumstance of the purchase by Government of Hunter's museum. Hunter's fame needed not even the preservation of his museum to render it "*ære perennius.*" It cannot be doubted that Hunter's career had exercised considerable influence on the progress both of English and foreign Medicine during the first thirty years of this century. But in France in particular, at the beginning of the present century, a great impulse was given to Medical studies by the appointment of a Government commission on the reorganisation of the Medical schools of Paris, Montpellier, and Strasburg. The names of many of the ablest Physicians and philosophers of that country appeared upon that commission. In Germany, also, the younger University of Berlin, fostered by the wide confidence in the future of German science, was beginning to emulate the reputation of Leyden, Göttingen, Upsal, Halle, and Vienna.

The beneficial influence of a man's labours, and especially of so great a man as John Hunter, being often greatest after his disappearance from the scene of his labours, was illustrated in this instance. Anatomy, Surgery, and Physiology were all powerfully impelled onwards during the epoch we are considering—say from 1790 to 1830—by his unexampled successful career. Headington in his lecture laid great stress upon Hunter's operation of ligaturing the artery above the aneurism as even then one of the greatest practical improvements of his age.

Mr. Headington might well expatiate on the merits of Jenner as a man of science, and as one having a higher claim to profound admiration as a benefactor to mankind in general. Bacon has said, "There are short methods for men of genius," but it might perhaps with propriety be also said that there are *new* methods for men of genius; their characteristic is that they do not walk in beaten roads, and are not deterred from following it through unfrequented paths. The originality of Jenner's mind, and his accuracy of observation, are shown by the universal reception and practice of vaccination by the brightest luminaries of our Profession in all the civilised parts of the earth.

The fair way of judging of the merits of an invention is, as Sir Humphry Davy said, "by the operation of the discovery upon civilised and social life; and in this respect Jenner"—a pupil of

John Hunter, be it remembered—"stands almost alone, having discovered the means of subduing a positive evil, and having secured a benefit, not only for all the inhabitants of the earth that have existed since his time, but for their most remote posterity, gaining for his name the most enviable kind of immortality—that arising from the gratitude and blessing of the reflecting portion of his fellow-creatures in all countries, and which will be more estimated in proportion as men estimate more correctly the nature of the truest glory—that of saving the lives of myriads of mankind.

We cannot let pass this occasion of stigmatising the conduct of Government, which, after a statue (the first erected in this country to the memory of this great man and Physician) was inaugurated with considerable ceremony in Trafalgar-square—the ceremony being graced by the presence of one of the most benevolent and enlightened men of the time, the late Prince Consort, and other distinguished personages, as well as by the authorities of the Royal College of Physicians—caused it to be removed from its public and noteworthy position from amongst the statues of men famed for their military glory to a comparatively obscure walk in Kensington-gardens. Surely even the shades of Sir John Franklyn and Lord Clyde in Waterloo-place must blush at the injustice inflicted on the memory and services of Jenner. However much we may all admire military virtues, the discredit done to the memory of Jenner and to the Medical Profession, by the removal of his statue from a prominent and unrivalled situation in the metropolis to a subordinate one, indicates a preference for the glory attendant on the destruction of human life rather than for that attendant on its preservation.

This was the period, also, when the names of Black, Cavendish, Priestly, Dalton, Scheele and Berzelius, Lavoisier and Gay-Lussac, Berthollet, and Davy were in men's minds. You will learn from your excellent teacher, Dr. Letheby, and his coadjutor Dr. Tidy, to how great an extent the atomic theory, morphology, and chemistry in general, have since been modified by Davy, Mitscherlich, Faraday, Tyndall, and others. Perhaps one of the proudest things ever said of a great chemist has been said of Berthollet, who died in 1825—"He was remarkable for a high degree of candour, renouncing his opinions with the greatest readiness whenever the progress of science was opposed to them, and this even in old age;" a point of character worthy of all imitation.

Headington did not leave untouched the researches of Cuvier and his assistants, of whom Brogniart was the principal. To Cuvier's genius, belonging entirely to the period we are considering, we owe the great elucidation of the then mysterious subject of extinct animals. Hunter had been one of the earliest, if not the earliest, who showed how many thousands of years appeared necessary to account for the terrestrial changes associated with fossil remains. And yet in Headington's time geology was only in the condition of sturdy youth. A generation of able men, most prominent among whom has been a fellow member of our Profession—Owen—has been successfully employed in its advancement.

Headington overflowed with admiration of two most notable physiologists who are now rarely mentioned, but whose works, together with those of Hunter, formed the foundation of English physiology of the period we are considering—Haller and Bichât. Of the sterling worth of Von Haller's Physiology I cannot do better than quote a *naïve* remark made half a century after Haller's death, by Rudolphi, in the introduction to his own work on physiology—viz., "That if any author of a book on physiology were asked whose work on that subject was the best, the inquirer could not complain if the author named his own. But if inquiries were made whose was the second best, all would reply 'Haller's.'" That work, however, on physiology which appears to all authors on the same subject the second best, is doubtless, as Rudolphi remarks, the best.

Some modern pathologists do scant justice to the Physicians of the last century. We may be permitted to say a word of commendation for another of Headington's great men—we allude to Cullen. It is doubtful whether any better *vade mecum* in nosology than that of Cullen has since been published, although needing adaptation to the present time.

Of the remaining Physicians lauded by Headington, Baillie's works show the accuracy and coolness of his judgment, his minuteness of observation, and his acuteness in referring effects to their true causes.

Brown and his speculations, in an attempt to supplant the theory and practice of Cullen, produced a profound sensation at the beginning of this century. Brunonianism, as they were called, since justly reviled, may after all, by its intense opposition to the antiphlogistic treatment of the period, have contributed to the reaction of later years in favour of the use of supporting treatment in disease.

On the other hand, Broussais' researches, which in Headington's day were on the tongue of every Physician, referred all forms of pathological disturbance to gastro-enteritis. His severe antiphlogistic regimen and medicinal treatment contributed much to prolong the reign of most extensive bloodletting by leeches, and even of venesection. The student of to-day would be aghast at the application of fifty leeches daily for many days until the patient risked dying, or did die from loss of blood, and at the string of twenty patients waiting their turns to be bled in the arm—a weekly event in some Practitioners' surgeries.

Bichât—"This was a man!" as Shakespeare says—Bichât, one of Headington's worthies, who has been named the Physiological Physician *par excellence*, has left an imperishable name in anatomy and pathology. He wrote his celebrated works, "Researches on Life and Death," and his "General Anatomy," before the age of 30—"*Decies repetita placebit*"—an encouragement to you who are about to become engaged in the arduous pursuits of Medicine. His career shows that it is not merely the inspired genius and power of observation of the poet, the artist, or the orator that may distinguish its possessor at an age when the majority of men are only beginning to find their position in the world, but that natural gifts, employed with industry and energy in the wards of a large Hospital, in the deadhouse, and in the laboratory, may yield one or more of you an undying reputation before others have awoke to the consciousness of a laudable career being really open to them.

Bichât was the first to study thoroughly the relations of the membranes and structures of the body to one another, and to subject them to such an analysis and generalisation as the state of chemistry and microscopy then permitted. He rendered a great service to pathology and practical Medicine in first distinctly showing that the closest similarity existed between the phenomena of disease in each particular membrane or structure, wherever situated; that, for example, given the knowledge of certain changes which occur in and upon a serous membrane when inflamed—say, the peritoneum—the Physician was first taught by Bichât that similar changes in, and other situations where a serous surface is found, the phenomena being modified only by the peculiarities of each organ which is invested by a serous membrane. With similar results he investigated the cellular and mucous membranes, the fibrous and other structures; and, whilst shedding a new effulgent light upon a minuter anatomy than had yet been taught, he prepared the way for much of the progress of morbid anatomy and the improved diagnosis of disease, and even for the minute microscopical investigation of the tissues, which has characterised French, German, and English Medicine in later years.

We cannot forbear mentioning at this moment a former distinguished Physician and Professor here, Dr. Pereira, whose bust also adorns this museum. He became attached to the London Hospital several years after our pupil days, but we had the good fortune to be attracted by his reputation as a teacher of Materia Medica and chemistry to his lecture-room at the then existiug Aldersgate Dispensary. Pereira was a warm expounder of many of the memorable discoveries of Bichât. We confess, however, to not having taken in the best part his persistent efforts to make us understand the differences between Bichât's animal sensibility, Bichât's animal contractility, organic sensibility, insensible contractility, and, lastly, his sensible organic contractility—terms now, happily for you, relegated for the most part to the realm where there is neither pleasure nor pain; whither also have gone the vitalistic theories of Stâhl, the theories which constituted Brunonianism, and many other theories and hypotheses:

> "All these, up-whirl'd aloft,
> Fly o'er the backside of the world far off
> Into a *limbo* large and broad, since call'd
> The Paradise of Fools."

We all owe much to Pereira for the thoroughness and excellence with which he taught and the example he instilled. He was the first lecturer whom we saw who was accustomed to use diagrams to illustrate his lectures.

Mr. Headington did ample justice to contemporary Surgeons in the persons of Dupuytren, Larrey, Cline, Cooper, and others.

Another notable circumstance, creditable alike to Dr. Billing and to the London Hospital, which it is permissible on this occasion to mention, is, that the first course of clinical lectures on Medicine delivered in this metropolis was delivered at the London Hospital by him. Previously to his time, isolated irregular bedside observations, both in Surgery and Medicine, will naturally have flowed from the lips of able men, such as

Cheselden, Baillie, Abernethy, the Blizards, and others whose names have already been mentioned to-day; anyone, however, who witnessed the monotonous silent Hospital round of the old-fashioned Physician of Headington's time will bear us out that the example of thorough clinical teaching was sorely needed in those days. It may now be truly said of Dr. Billing, as was said of Morgagni, in the language of Virgil—

Nec tarda senectus
Debilitat vires animi, mutatque vigorem.

An important addition to our resources, that of systematic thermometry as a means of diagnosis in inflammations and fevers, has been made during the period of which we are speaking, and may be mentioned here. We owe to a member of our staff, Dr. Woodman, an able translation of Wünderlich's treatise on this subject. It is due to a former senior Physician of this Hospital, Dr. Cobb, under whom we had the pleasure to officiate on occasion of the first invasion of cholera in 1831, at Newcastle-on-Tyne, to state that he, and others besides ourself, employed at that time the thermometer to measure the fatal tendency to death. Esmarch, who is as well known for his accuracy of observation as for his skill and boldness as an operator, has recently favoured us with his latest observation on ice-application to joints and acute inflammation of bone. He states that he can demonstrate the therapeutic propagation of cold to the interior of the living bone, and a reduction thereby of temperature in the internal part amounting to 10° Cent.—a fact which, when considered in connexion with the daily palpable beneficial effect of ice to external parts, enables the Physician to understand the efficacy of cold applications to the trunk in inflammations and hæmorrhage. Truly Æsop might have said of the Physicians that we blow hot and cold with one breath, for as a Profession we still think highly of warm applications in similar cases. You, gentlemen, will have to watch the practice of your Physicians and Surgeons, and learn how and when to employ either one or the other.

In 1830 auscultation and percussion were just struggling into notice in this country. In this Hospital Dr. T. Davies, fresh from the schools of Montpellier and Paris, laboured most effectively to disseminate a correct knowledge of heart and lung disease. It is pleasant to add, that our former pupil and colleague, Dr. Herbert Davies, has since worthily represented his excellent father in the branch of inquiry and practice he had made his own.

THE MIDDLESEX HOSPITAL.

Dr. John Murray delivered the Inaugural Address at this Hospital. The lecturer commenced by urging the new students of Medicine to inquire of themselves whether they were adopting a profession for which they were naturally fitted. According to the comparative vivacity and force of a young man's intellect, his fitness for a profession should be gauged. If a youth afforded no evidence of predominant interest in literary study and the delights of scholastic ambition, he ought not to be encouraged to adopt a profession requiring that considerable amount of application to such pursuits demanded by Medicine. He referred to the unhappy instances daily to be seen, of men possessed of excellent abilities engaged in the half-hearted pursuit of occupations wholly unsuited to their natural turn of mind—abilities which, if they had been directed into the proper channels, would have placed the possessors in positions in which they would not only have excelled, but would have increased their enjoyment of life—perhaps also the depths of their pockets, and certainly their value to the public. Most young men's minds, he believed, afforded a clue, if properly scrutinised, to their natural fitness, to ascertain which was the duty of parents and guardians; and this was becoming daily more and more imperative as free trade, the correlative of natural selection, was, in this country at least, in the ascendant. To make the most of this natural fitness, the preliminary education of the young man should be of a most liberal character. The great acuteness in the observation and treatment of disease displayed by men of the present day distinguished in Medicine does not, he believed, rest on the possession of Medical facts alone, but on a sound general education aided by natural ability for the practice of their Profession. He decried the growing tendency amongst the advocates of the real or modern or so-called useful studies to underrate the value of classics, by the study of which we are made acquainted with the spirit and power of Greek and Roman antiquity, learned from its original works. A liberal education should make a man know himself and the world, not in a narrow sense—as Matthew Arnold expresses it, "to make a man a good citizen, or a good Christian, or a gentleman, or to fit himself to get on in the world, or to enable him to do his duty in that state of life to which he is called. There is a wider and a more noble sphere—to do good to mankind, and to advance his fellow-creatures."

After offering a few words of advice as to the manner in which the student of Medicine should proceed in surmounting the mass of work before him, Dr. Murray continued:—To assist and guide the student in his studies, Medical schools have been formed, in which more or less compulsory attendance is required, the different subjects taught being arranged in such a manner as to afford a very considerable amount of assistance to the pupil. Our metropolitan system of Medical schools, as it at present exists, has found many able opponents—men whose opinions carry with them great authority, and in whose views I am prepared largely to sympathise. But, while we should look sanguinely forward to a future still greater than the present in the Medical education of the metropolis, there still can be no doubt that even now, with its disadvantages, London affords many unrivalled opportunities for the study of Medicine unattainable elsewhere.

The mission of a Medical school, it seems to me, should be not alone to cram the student with facts, but to effect as far as possible the total Medical cultivation of the student in his strictly Medical studies. What is to be avoided is, that the instruction degenerate into a preparation for examination, instead of providing that the pupil may have the requisite time to come steadily and without hurrying to the fulness of the measure of his powers and character; that he may be securely and thoroughly formed, instead of being bewildered and oppressed by a mass of information hastily heaped together. Do the Medical schools of London effect this? That there is much room for improvement in their teaching, that the tutorial system might be with advantage grafted more largely into them, less stress laid upon certain subjects, and other compulsory courses instituted, I am very strongly of opinion; but that they do much to develope the total Medical cultivation I most certainly assert. If this desirable object is not attained, it is not entirely the fault of the schools. What faults they do possess are in a great measure due to the baneful influences of certain of our licensing bodies, which do not demand a sufficiently high standard for qualification, and do not allow the schools time to develope the student. That systematic teaching is, as asserted, carried to an excess in them I do not believe; in fact, the very reverse. That students should be allowed to study wheresoever and howsoever they please, as recommended by not a few, is a doctrine which I think should be resisted, as opposed to reason, and a retrograde step in education. Were it possible, as is proposed, to render the examinations all-sufficient as tests, which I deny they can be made to be, the more or less want of system in the preparation for these examinations would entail a waste of time and strength, and, by reaction, tend to reduce the standard of examinations. It is this absence of system which I believe is the bane of education in this country. In everything we lean upon our energy and wealth to overcome the drawbacks necessarily dependent on our want of gradual training and method. We forget that "if the iron be blunt and a man do not whet the edge, then must he put forth the more strength; but wisdom is profitable to direct."

How are students, I ask, to be guided in their studies unless in a systematic school? where are they to learn exact habits of mind? Not in books, certainly. They must be brought to the water, and taught systematically and gradually how to drink. But they must be compelled to do so; and I believe, in spite of all that has been said to the contrary, this can be done if properly tried. Most students are willing and anxious to learn if intelligently managed; and if the teacher fail, it is, in the majority of cases, as much the fault of the teacher as of the pupil. If there are those indisposed to apply themselves to their work, much can be done to make them learn if taught methodically and under a compulsory system. I never saw the man yet, unless he were an incorrigible dunce, who could not be made to learn. Were it not for our compulsory system, however, what would become of such men? One would stay at home and cram; another would go from place to place, "taking tithe of musk, of anise, and cummin," but neglecting the principles and more important matters of his Profession, picking up crumbs which he would mould together into some crude idea representing his peculiar notions of the theory and practice of Medicine, while only a comparatively small number would pass their examinations, and that chiefly through their inherent natural good qualities, possessed of a comprehensive

Medical education. A considerable number would probably be able to pass the examinations, however strict and searching they might be; but their minds would not have been gradually formed, and taught that exactness of reasoning which is likely to be engendered by a proper system of teaching, such as is aimed at in some, at least, of our Medical schools. I would have you, therefore, to bear in mind that system and regularity in your work are all-important.

The remaining portions of Dr. Murray's address were chiefly directed to detailed advice in reading, in attending lectures, and in clinical work—in the last of which he pointed out that our metropolitan system is deficient. He earnestly urged upon students the desirability of going abroad for a time, and extending their term of student-work beyond that required by the licensing corporations, and advised them to obtain the highest qualifications possible; and alluded to the shameful state of ignorance in which some young men commence practice, possessed though they be of one or more British qualifications.

The lecturer concluded his address by reminding his hearers that beneficence forms Medicine's highest title to respect; that their duty, their real pleasure, would be found in allaying misery, in assuaging suffering, and advancing the physical wellbeing of man. He pointed out that *succurrere miseris* was the first lesson of their Profession; and in carrying out their great and noble object they should do it as best they could.

ORIGINAL COMMUNICATIONS.

CONVOLUTIONS OF FRONTAL LOBE OF THE BRAIN.

By METCALFE JOHNSON, M.R.C.S.E., L.S.A.

Dr. Turner, of Edinburgh, has, in a concise little pamphlet, drawn attention to the map of the convolutions of the brain. In accordance with his observations I have here ventured to delineate in the accompanying sketches some markings in healthy and diseased brains which I have examined.

Fig. 1 is an ideal map of the brain, in which the following parts are represented:—

a, a. Longitudinal fissure.
b, b. Superior frontal fissure.
c, c. Inferior „ „
d, d. Fissure of Rolando.
e, e. Horizontal limb of fissure of Sylvius, leading to intra-parietal fissure.
f, f. Parallel fissure.
g, g. Parieto-occipital fissure.
1, 1. Superior frontal gyrus.
2, 2. Middle „ „
3, 3. Inferior „ „
4, 4. Ascending „ „
5, 5. Ascending parietal gyrus.
6, 6. Angular gyrus.

In the following seven figures, taken from post-mortem examinations of various brains whose peculiarities will be pointed out in due course, the letters and figures point to the parts corresponding with those of the ideal map.

Fig. 2 represents the brain of a man who died insane, having been picked up as a tramp, but who, for some reason or another, probably due to insanity, refused to give his name or history. In this brain the parts are well marked, and easily recognised as being in the anterior or frontal lobes almost identical with the map.

In Fig. 3, an epileptic of a very severe kind for many years before death, the same parts are recognised, but the superior frontal gyrus is further convoluted, especially on the right side. The convolutions, or sulci, extend more into the space occupied by the ascending frontal gyrus.

Fig. 4 is the brain of a very intelligent but eccentric man, who died of rupture of the heart from fatty degeneration, after a somewhat dissolute and immoral life. The frontal lobes are well marked into the separate gyri, the right being more regular than the left. This will be remarked in all the specimens.

Fig. 5 is especially remarkable in having had the left lateral ventricle distended to an enormous size, containing a space equal to twenty square inches of surface. By this means the fissure of Rolando has been forced back into an abnormal position, and the space occupied by the superior frontal gyrus, larger than natural. The effect upon the left caloso-marginal fissure is shown in Fig. 9, *B*, as compared with the right (Fig. 9, *A*). Here, again, the irregularity of left side is remarkable. He was a man of very curious habits—one of the people who belong to the "borderland" between sanity and insanity.

Fig. 6 is the brain of an old woman who was always a strange Irish character; not quite sane, but still sufficiently so to have married and given birth to several sane children. In the left frontal lobe was discovered a large bony tumour, weighing two ounces and three drachms, and displacing two fluid ounces and three fluid drachms of water. It was very slightly attached to the base of the skull, about the region of the sella Turcica. Here, again, it is the left side.

Fig. 7 represents the brain of a man who had always passed for a sane man, but who was found dead in bed, the cause of death being, apparently, abscess in the frontal sinus. Here the general arrangement is very normal, but more so on the right side.

Fig. 8 represents the fore half of the brain of a microcephalous idiot, drawn during the earlier part of my researches, and therefore the posterior half was not accorded. The parts are just so far formed as to be recognisable, but only by a slight stretch of the imagination. Had we no better clue than this brain, we could see no sure indication of the division into gyri. Here we have an interesting case of arrest of development (intra-uterine), probably at about the seventh month; and when compared with Fig. 5, where the brain injury was extra-uterine (probably hydrocephalus as a child), shows us two distinct causes of cerebral insanity; and when compared with Fig. 6, in which the injury to the brain was the growth of later years, shows us how the convolutions of the brain may be perfect or imperfect, and the class of mentation effected equally distinct in either case. The case of Fig. 6 was characterised by periodical attacks of apoplectiform epilepsy for several years before death.

So far as I am able to record, the characters associated with these separate brains were of various shades of mental power. Of Fig. 2 I have no history, except that he died insane, but there was no evidence of brain disease. As shown in my paper on "Cerebral and Ganglionic Insanity," a large proportion of insane persons show on post-mortem examination no appreciable signs of diseased brain-structure to account for their disordered mentation.

In the case of No. 3, he was an agricultural labourer of ordinary mental calibre, being neither more stupid nor less intelligent than his class. He was subject to epilepsy; was a good-tempered man, who had supported himself by his own exertions until prevented by losing the use of his right hand.

No. 4 was a clever man of dirty habits, fond of drink and immoral habits in respect to women. His eccentricity was not such as is at all accounted for by the development or disease of his brain. Indeed, it seems to be a very fair sample of an average development, the only abnormality being a tendency to a reduplication of convolution in the superior frontal gyrus.

No. 5 was always very eccentric from boyhood till death, and this was very satisfactorily accounted for by the enlarged state of the left lateral ventricle. How far this throws any light upon the relation of mentation to secondary automasis may be a question. It would seem as though the seat of control in secondary automasis is in the parts concerned in the centre of the brain, corpus striatum, and thalamus opticus. In this case I see in my notes the following remark—"Thalamus opticus rough on surface. Grey matter very distinct." This man's power of acting through secondary automasis was perfect, but his general function of mentation was very imperfectly performed. There is reason to think that his perception of *res ab extra* was abnormal; at any rate, he spoke and acted as if it were so. His manner was brutish, his habits dirty, and his appearance at times almost ferocious. He was very cunning, and fond of drink. Never took care of money, but always spent it in drink. He was a man of ungainly gait—a sort of flat-footed waddle. His family of brothers and sisters were all rather clever; and I am inclined to the opinion that this brain, minus the enlarged ventricle, might have become that of a clever man.

Of No. 6 it may be said that, being Irish, her strange and foolish manner was not so perceptible, as the frequent association of that strangeness with very fine wit in the Irish nation renders it difficult to distinguish folly from wit; the more so, since the speech is so often nowadays used to obscure the meaning of the mind. Here, however, we have the abnormal direction of the fissure of Rolando, as well as the interruption of the superior frontal fissure, the oblique direction of the

Fig. 1.

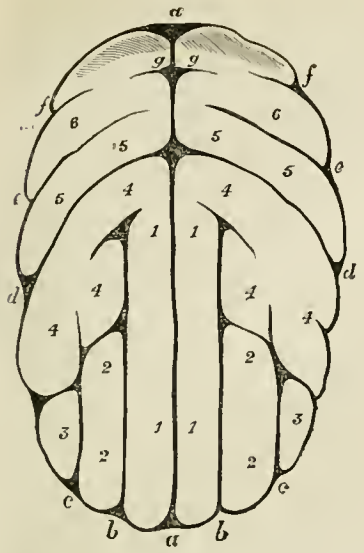


Fig. 2.

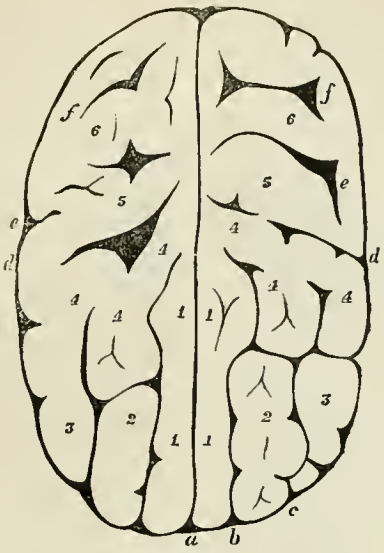


Fig. 3.

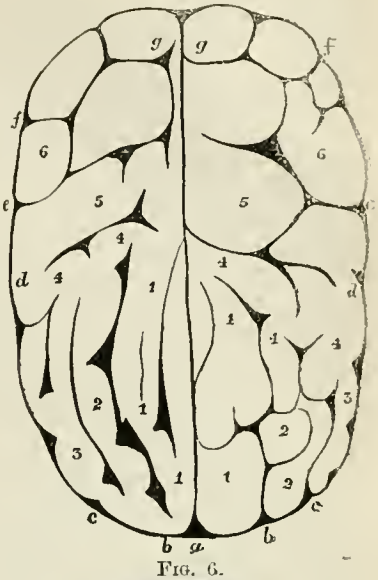


Fig. 4.

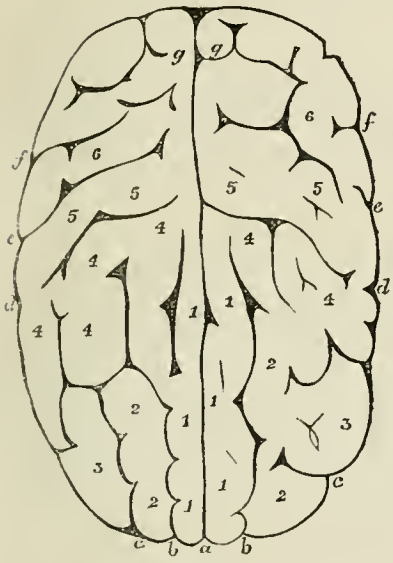


Fig. 5.

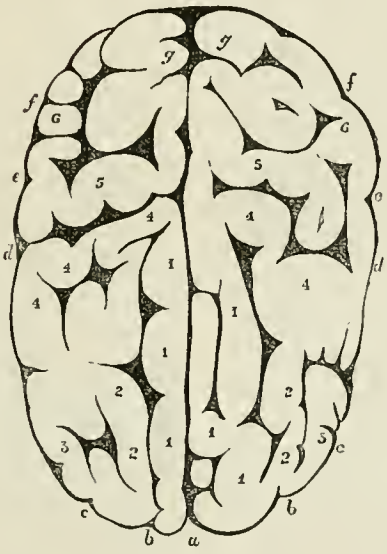


Fig. 6.

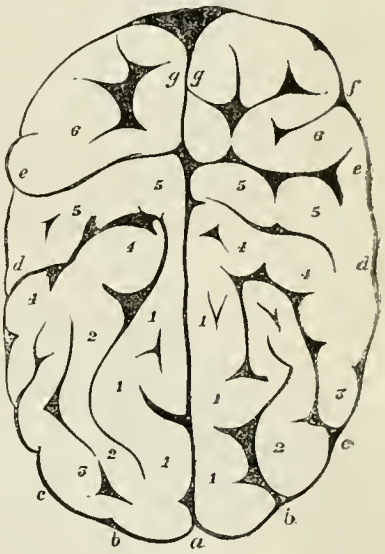


Fig. 7.

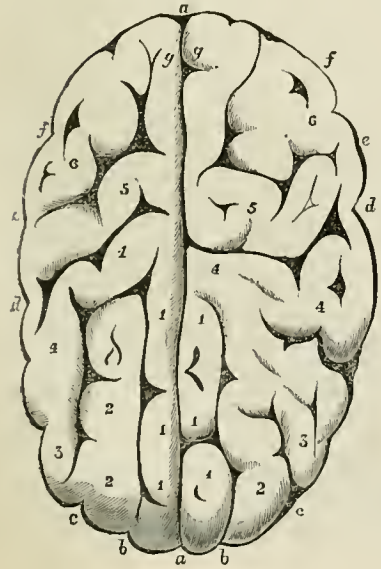


Fig. 8.

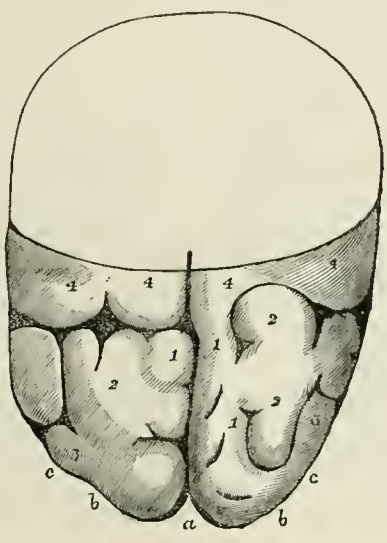
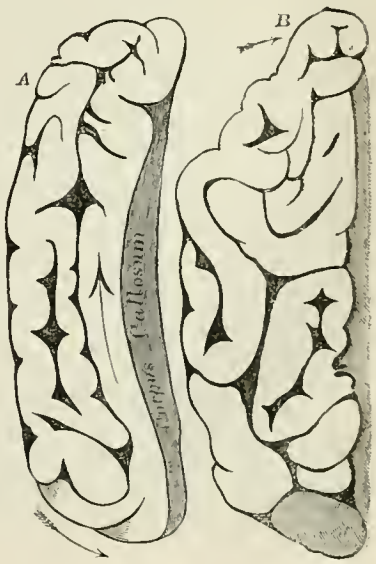


Fig. 9.



inferior frontal fissure, which together alter by their surroundings the shape, size, and relation of the whole of the gyri. Moreover, the depth of fibres beneath these layers of grey matter was so much altered, as well as the constitution of the subjacent substance, that it was impossible to expect healthy mentation on that side of the brain for some years past.

Of No. 7, I have no history of anything abnormal in his mental development. I therefore conclude that he was a man of ordinary mental capacity.

The interest of the whole centres itself in No. 8, a remarkable case of intelligent microcephaly. The brain by itself only weighed fourteen ounces and six drachms, while the cerebellum and appendages weighed four ounces and six drachms. Her powers of mentation consisted of an ability to learn words, for speech, and understanding; she could never be taught her letters or figures; could not count ten. I have referred to her case more at length in my paper on "Cerebral and Ganglionic Insanity."

The few general conclusions that follow naturally on the consideration of these brain-markings seem to consist chiefly of the recognition of the necessity for a close analytical mental history in cases of brain disorder. If the Surgeons of our lunatic and idiot asylums would make close analyses of the mental properties of their patients in life, our post-mortem examinations would then present much more of interest, and we should then have a firmer grasp of the clue to this labyrinth or Resamond's bower, which the brain, as at present laid before us, seems to resemble. It may further be remarked that the facts here related, in respect to the general resemblance of these brains and the particular dissimilarity of each, lends fresh and additional colour to the opinions which I have advanced respecting mentation, both in my paper on "The Relation of the Ganglionic System to Mentation," in the *Lancet*, and my paper on "Hedonism" in the *Medical Times and Gazette*—that the grey matter plays a part independent of the mere tubular message-passing through the nerve-fibres from periphery to centre.

At present I have only been enabled to devote attention to the anterior or frontal lobes, and this from only one aspect. In course of time I shall hope to be able to supply more matter on lateral aspects, which will throw more light upon the arrangement of gyri, which in the present aspect are out of sight.

Lancaster.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

MEDICAL COLLEGE HOSPITAL, CALCUTTA.

INTRACRANIAL SUPPURATION—TREPHINING—PARTIAL RECOVERY—RECURRENCE OF SUPPURATION—DEATH.

(Under the care of J. FAYRER, M.D., Senior Surgeon of the Medical College Hospital, Calcutta.)

We are indebted to Mr. Sanders, our Resident Surgeon, for this account of a very interesting case of injury, followed by intracranial suppuration, that has recently occurred in Dr. Fayrer's wards of the Medical College Hospital.

At one time the operation of trephining appeared likely to prove successful, for the worst symptoms passed away. He regained—having been completely aphasic—the power of speech; consciousness, which was all but obliterated, returned; hemiplegia, which was complete, passed away; he was able to read; to get up from his bed and walk; and there was every appearance of the wound closing in by healthy granulations, except at one side of the trephine aperture, where the bone was evidently dead. The improvement was only transient—fresh indications of mischief appeared, paralysis and aphasia returned, and he relapsed into a state as bad as that from which he had just been relieved.

The trephine was again applied, more pus evacuated, and, to a certain extent, relief conferred; but the mischief had spread to the interior, and a cerebral abscess had formed.

The case illustrates the danger that may attend any scalp-wound, however slight; and it proves that in such cases, where intracranial suppuration results, perforation of the skull offers the only hope of safety. The patient was completely relieved by the first operation, and had the mischief not extended to the brain substance, there is every reason to believe that he would have recovered.

The patient was a man prematurely old, broken in constitution by climate and excesses, and who met with the accident in the very worst season of the year—a time in Calcutta when, owing to the malarious, hot, and humid state of the atmosphere, suppuration, even in the most healthy, is only too prone to occur.

The condition commonly known as "Pott's puffy tumour" was well seen in this case, and the welling out of pus from within the cavity as the trephine pierced the cranium was very satisfactory proof that the diagnosis was correct and the operation needed.

The dura mater was not opened until the following day, as it looked perfectly healthy, and evinced no signs of suppuration between it and the brain. The symptoms of cerebral pressure not yielding to the first operation, the membrane was carefully punctured, and a small quantity of pus evacuated. This was soon followed by an amelioration in the symptoms; gradually one by one they cleared away. Consciousness and speech returned, paralysis passed away, and he had assumed all the aspects of complete convaleseence, when a return of the symptoms showed that intracranial mischief was again insidiously invading. The trephine was again applied, and more pus evacuated, but this time without success; a cerebral abscess had formed, and he sank.

The post-mortem examination revealed the presence of a large abscess, the gradual formation and pressure of which accounted for all the recurring symptoms. The forward pressure in the first instance accounted for the aphasia, as it pressed directly over the island of Reil, and that on the cerebral ganglia explained the hemiplegia. The necrosis of bone was limited almost to the area removed by the trephine; those portions which escaped that instrument were in rapid process of exfoliation, a deep groove having already formed, and the dura mater became adherent just beyond the groove. It proved that the suppuration between the bone and dura mater was of limited extent, the adherent state of the dura mater to the cerebral lobe showing that it was also limited there. It was by extending deeply into the substance of the brain that suppuration proved fatal.

Case of W. J. S., aged 43, *formerly an Indigo Planter; Admitted July* 18; *Died August* 22, 1870. *Disease—Intracranial Suppuration following a comparatively Slight Injury.*

(Reported by Assistant-Surgeon E. Sanders, B.M.S., Resident Surgeon of the Medical College Hospital, Calcutta.)

July 18.—The patient states that three days ago a piece of brick was thrown at his head, and caused a slight wound, which was dressed, and thought no more of at the time. On admission, was slightly intoxicated, and was found to have a slight wound on left side of head one inch and a quarter in length, situated posterior to the parietal eminence, reaching down to the bone. The pericranium was slightly denuded; margins of wound somewhat inflamed. Bowels costive; tongue foul. ℞. Cathartic pills ij., stat. ℞. Ol. ricini ʒij., ol. terebinth. ʒij., aq. menth. pip. ʒj. in four hours. The patient is a tall thin man, much broken in constitution by excess and exposure to the debilitating influence of a tropical climate.

21st.—Patient doing well—in fact, wanted to be discharged from Hospital—till 6 p.m., when some bleeding occurred from the wound, which was easily controlled by pressure. Is slightly feverish. ℞. Fever mixture and purgative draught.

22nd.—Water dressing to wound. ℞. Quin. sulph. grs. v., ter die.

24th.—Everything went on well till 6 p.m. to-day, when he complained of a slight aching pain over left eye.

27th.—Bowels moved every day by means of purgatives. Has slight hemicrania of left side. 6 p.m.: Is feverish and restless. ℞. Magnes. sulph. ʒij., dec. sennæ ʒiv., stat.

28th.—Bowels freely opened. Still feverish, and complains of a feeling of nausea. Head to be shaved, and an ice-bladder applied. ℞. Calomel grs. vj., pulv. jalapæ ʒj., stat. 6 p.m.: Temperature 101·4°; pulse 88, full. Has had four scanty stools. Tongue foul. Pupils contracted.

29th.—Temperature 100°; pulse 72. Nausea has now ceased. He feels weak, and complains of a feeling of heaviness in his head; not at any particular part, but all over. 5 p.m.: Temperature 101°; pulse 72, full and hard. Great uneasiness in head. Compiains of weakness in right arm and leg, with sudden startings, and a sensation as of pins and needles. ℞. Repeat calomel and jalap.

30th.—Much the same as yesterday. Wound not looking so clean. Eyelids slightly drooping.

31st.—Tongue very foul. Bowels costive. Right arm very weak; can only raise it by a series of jerks. Loss of sensation

in right side of face. Slight difficulty of speaking. Mind clear. The granulating wound is dry, flabby, and glazed; a puffy swelling around it. A crucial incision was now made down to the bone, and a small quantity of pus evacuated. Bone found bare and roughened over a small area. 6 p.m.: The power of articulating (or rather the memory of) certain words is lost, and he uses words wrongly. 9 p.m.: Has vomited once.

August 1.—9 a.m.: Temperature 101·3°; pulse 80. Aphasia very complete. Complete paralysis of right arm; right leg very nearly the same. Endeavoured to express what he wants in writing with his left hand, but could only trace the initials of his name. Mind seems clear. A trephine was now applied over the seat of injury, and a teaspoonful of thick pus evacuated from between the skull and dura mater. Skull naturally very thick (one-third of an inch), and without diploë. Some plastic matter formed on the inner surface. No bulging of dura mater, which was carefully examined. 1.15 p.m.: Had a mild convulsive fit, which began in right arm, and extended over the whole body, lasting two minutes. When the fit was over, breathed in puffs, the air escaping from right side of mouth. 11 p.m.: Has had several fits. Pulse 110, and rather hard. Examined the dura mater, but could detect no bulging. ℞. Cathartic enema, stat.

2nd.—7 a.m.: Passed a stool in bedclothes. During the night slept for a very short time; convulsive fits occurring at short intervals. Very restless. Can only utter sounds like "ai cairna," which he repeats incessantly. 9 a.m.: Dura mater punctured, and a small quantity of pus let out. Seems to be sensible, and expresses his wants by signs. 3 p.m.: Fits becoming violent.

3rd.—Temperature 101°; pulse 76, small; respiration 18, regular. Has passed a very restless night. Stools and urine are passed involuntarily, or without an effort to express that he wishes assistance. In one instance in which I watched him, he did not seem to be conscious of having passed anything. Occasional convulsions throughout the day.

4th.—2.30 a.m.: Had a very mild fit. 6 a.m.: Since last report has been sleeping quietly. 9 a.m.: Temperature 98°; pulse 72; respiration 16. Is conscious, and asks by signs for food, drink, etc. Stools and urine passed in bedclothes. A curious frothy appearance of eyelids. 4 p.m.: Tongue very foul. Ordered a fetid enema. Begins to articulate. 5.30: Said "pipe," which was given to him, and he had a short smoke.

5th.—Temperature 98°; pulse 68; respiration 16. 9 a.m.: Is able to say a few words, which he repeats over and over again, without seeming to have any very definite idea of their meaning. Head easy. Wound granulating healthily. Brain seen at the bottom of the wound rising and falling healthily. Can move the right leg, but the effort to do so causes him a good deal of pain. Hyperæsthesia of the right leg, reflex movements very powerful; right arm not improved at all. Answers questions very sensibly by signs. 10 a.m.: Woke from a light sleep, and called out for his breakfast. Helped himself with left hand; seemed to enjoy it a good deal; then went to sleep again. 11.30 a.m.: Woke up and called for the nurse. Moves his right leg pretty freely. Endeavoured to talk, and seemed much distressed at being unable to find words for his ideas. Became very low-spirited and depressed. 6 p.m.: Had a slight spasm in left side, which he expressed by saying, "I had padsum." Sensation returning in right arm.

6th.—4.30 a.m.: Has slept since last report till now, when he woke up and said, "Nurse, port wine." 9 a.m.: Sensation in right arm nearly perfect. Tingling in right eyelid. Can now move his right arm slightly, and can lift it up with his left, but a good deal of pain is thereby experienced. Temperature in right axilla 97·4°; temperature in left axilla 98·1°. Can read print and can articulate, though slowly, most of the words in an easy sentence. Wound doing well.

7th.—Temperature 98°; pulse 68; respiration 16. Small slough removed from dura mater. Brain seen below, but it seems at some depth. Right leg has nearly recovered; right arm doing very well. Bowels still only moved by enema.

8th.—Temperature, pulse, and respiration normal. Wound suppurating freely and looking very healthy. Sensation and motion are now quite restored to right leg. Right arm can be raised to his head, though the motion is somewhat jerky. Says that the hand is very weak, and that he cannot hold anything in it. Speech is now very fair, though slow, as if it were an effort of memory to find the words, or that the tongue requires schooling to articulate them. Occasionally hesitates at a word, and failing to pronounce it, substitutes another, not always, however, relevant. The tingling of right eyelid has now entirely ceased. Appearance natural. 10 p.m.: Pulse 80, and full. Complains of an uneasy feeling across brow; articulation not quite so clear as it was in the morning. Has been exercising his newly recovered power of speech too freely, and has evidently fatigued himself. Directed him to keep quite quiet, and not to talk.

9th.—7 a.m.: Had an attack of bleeding from the granulations. This, he says, has done him a deal of good, and he certainly does look better.

10th.—Is doing very well, though he had some slight startings of right side during the night.

On the 11th he walked several paces. Quinine and nitro-muriatic acid ordered.

12th.—Doing well since last report. Wound very healthy and closing up rapidly. Bone, except at one side, nearly covered by granulation. Hole in dura mater would admit a pin. Very little discharge from wound. 7.30 p.m.: Had a mild convulsive fit, beginning as the others in the right side. He was conscious while it lasted, but could not restrain the movements of his limbs. 8.45 p.m.: Had another fit.

14th.—Had two more fits during the night, chiefly affecting the right side. Complains of a dull throbbing pain in the head, and a feeling of heaviness. Hole in the dura mater dilated with a probe, and a drop or two of pus evacuated. Pus has all along come more copiously from behind dura mater and brain than from between bone and dura mater.

15th.—Feels all right again this morning. Wound very healthy, rapidly closing; free discharge of laudable pus. Bone concealed by granulations, except at one point, where it is evidently dead.

17th.—Not doing so well. Wound looking unhealthy about the aperture in dura mater. Right arm very much diminished in power.

18th.—Patient weak and low. Right side completely paralysed. Again trephined over the place where the bone is dead, and slit up the dura mater on a director. Free evacuation of pus, and a long shreddy piece of slough from between dura mater and brain.

19th.—Much the same as yesterday, only weaker. 10 a.m.: Had a mild convulsive fit, which only affected the paralysed limbs.

20th.—4 a.m.: Speech becoming affected. 9 a.m.: Weak and very irritable; seems sensible. 7 p.m.: During the day has gradually lost the power of articulation. Now howls when he wants anything.

21st.—9 a.m.: Cannot utter the slightest sound. Wound nearly filled up with tough insensible granulations. Opened the wound in dura mater in several places on a director, and evacuated a small quantity of yellow pus which had become pent up. No appearance of sensation during this. No pulsation of brain apparent, but remote pulsation is felt on pressing the finger into the spot where the skull was originally trephined. This causes slight pain and a jerky motion of the right arm from elbow downwards. Countenance dull and heavy; intelligence much affected, though he can still be made to understand some questions. Tongue foul; pulse slow and weak; temperature normal. Patient is gradually sinking; endeavoured to write with left hand, but failed. 11 a.m.: Began to be drowsy; stupor gradually set in. 7.30 p.m.: Patient has been sinking all day. Breathing is now difficult and stertorous. Gurgling in throat. 8 p.m.: Is quite comatose.

22nd.—4 a.m.: Died.

Autopsy, Ten Hours after Death.—Body considerably emaciated. Head: Externally on left side is a large trephine wound, situated between the left parietal protuberance and the mesial line, and somewhat posterior to that eminence. On removing the skull, the dura mater found somewhat adherent to the bone. Inner surface of skull with a large hole, formed by the application of trephine. Some portion of the margins healthy, the rest necrosed, and in process of removal. Between the apertures and the groove for longitudinal sinus is a patch (the size of a shilling) of commencing necrosis, beautifully circumscribed by a very narrow groove. Dura mater adherent to brain in a circle about three inches in diameter, and corresponding in situation with the wound in the skull. Arachnoid surface otherwise free from any trace of inflammation. Brain much congested; large veins over the pia mater filled with very dark blood. A thin clot about the size of a crown-piece over the upper surface of the left anterior lobe. At the seat of injury, protruding through the dura mater, and filling up the hole in the bone caused by the first application of the trephine, is a fungus cerebri. Round the adherent dura mater is a circle, an inch wide, of discoloured and softened brain-substance, which gives to the finger a feeling of fluctuation. On making an incision through this, the contents of an abscess were evacuated, consisting of very offensive pus, sloughs, and

softened brain-substance. The brain on this side was found much softened, in many parts nearly broken down. On making a section and exposing the third ventricle, the left thalamus opticus was found softened, the corpus striatum seemingly healthy, and the ventricle separated from the abscess only by a thin layer of softened tissue. Very little fluid in the ventricles, not opaque, but slightly sanguinolent. The abscess is about the size of a hen's egg, and extends forwards over the island of Reil, which is darker in colour and more softened than normal. A thin layer of softened brain-substance separates it from the floor of the abscess. Right side fairly healthy, but congested. Posterior cornu of third ventricle filled with slightly sanguinolent serum. Lungs healthy. Heart healthy, contained blood, fluid. Liver very large, congested—in a condition between myristicate and hobnail. Spleen very large; capsule much thickened in places. Kidneys: Capsules easily separable, large, coarse in structure, and highly congested. Intestines healthy.

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SATURDAY, OCTOBER 7, 1871.

THE INTRODUCTORY LECTURES.

In these days of feverish desire and agitation for change, when for any ceremony or custom to be old seems almost to insure its being swept away, or at any rate "reformed," and newness has become, as it were, synonymous with improvement; so that the creed of great numbers appears to be, "All change is good; whatever is, is wrong"—lighting upon such days as these, we say, it is remarkable and refreshing to observe that the vast majority of our Medical Schools still adhere to the time-honoured habit of opening the Winter Session by a General Introductory Lecture. Indeed, we know of only one School—in London, at least—which has given up this old custom; and we will not inquire into the reason why the authorities of the Medical School of St. Bartholomew's Hospital have dropped the Introductory Lecture. We will not pretend to know whether they think the ceremony foolish, or superfluous, or inconvenient, or what other cogent argument they may have found against it. Doubtless—as was, we think, observed in one of the Lectures given this year—while much may be said for, much may also be said against, Introductory Lectures, and we are content to note that none was given at St. Bartholomew's Hospital Medical School. In most instances, also, the custom of delivering the Lecture, as a separate ceremony, in the afternoon of the first working-day in this month, was adhered to, though in one or two cases the more modern plan of making it introductory also to an evening entertainment or *conversazione* was adopted.

In style and scope the Introductories naturally varied: some consisting, more or less entirely, of information to the students on the variety and extent of the subjects they will have to study, of advice as to the necessity of strenuous, steady work, and on the best ways of truly educating themselves, instead of only, parrot-like, learning by rote all that may be set before them, and of warnings against the snares and pitfalls that will beset their path; while others were of a more ambitious character, entering into the history, to a greater or less degree, of the rise and fall of Medical theories and systems. We cannot note the special characteristics of each and all of the Lectures, and must beg that it may not be supposed that any we do not especially mention were not worthy of notice, but only that some have come more directly under our notice than the rest.

The Introductory Address at Guy's Hospital was delivered by Dr. Oldham, who spoke of the necessity laid on the student of training, refining, and disciplining his intellect, and of keeping it in alliance with the moral sense. He pointed out how favourable the number and variety of the subjects included in the study of Medicine are to mental activity, and to the training and quickening of the senses; and urged on the students the importance of *educating* themselves thoroughly while they learned from their teachers. To such students as may feel at times "discouraged by being distanced by the rapid successes of a brilliant intellect," he offered the consolation,—"experience shows that, taking the resources of the whole man, the ultimate success of those who have striven their utmost to discipline their minds, enlighten their moral nature, and learn their Profession is remarkably equalised."

At St. Thomas's Hospital the fact that the lecturers and students met together for the first time in their new buildings, naturally led Mr. Le Gros Clark to dwell chiefly on the history of the Hospital and School, and of their past worthies. His lecture struck us as being a particularly interesting and elegant discourse, full of graceful allusions and somewhat touching memories. Referring back to his own student days, he told how he used to come to Stangate, and "trip over the long shelving shore at low-water to launch his boat," and remarked that "even the ready credulity of boyhood would have rejected as absurdly improbable the suggestion that each flood-tide was then flowing over the site of the Hospital of future ages"; and naturally, also, he could not but indulge in some reflections on how few of those who began their career with him still remain, while all his honoured teachers had departed. To all this he added some truly wise and high-toned advice to those commencing their Hospital career, and in most eloquent and feeling language depicted the real manliness of character which every student should strive to attain to. It is not easy to refrain from quoting some of this part of his discourse; but as, happily, we are able to give his lecture in full elsewhere in our pages, it would be superfluous to repeat it here.

At the London Hospital Medical College, an innovation on established custom was made by the appointment of a past member of the staff—Dr. Little—to deliver the Introductory Address. Remembering that the first Introductory Lecture he had heard, as a new student at the London Hospital, forty-three years ago, was an eloquent address from Mr. Headington, "On the Glories of the Discoveries and Improvements of the previous forty years," Dr. Little felt desirous to give to the present students the same stimulus and encouragement that he had then derived from Mr. Headington's description of the triumphs of the great workers in Medicine, Surgery, Physiology, Pathology, and Chemistry, of his time. He went, accordingly, over the same period as Mr. Headington did, and then very briefly described the chief additions to our knowledge, and spoke of the most eminent workers, at home and abroad, since 1830, and finally ventured on a forecast of some of the triumphs we may hope to win in our battle with disease and death, in the years to come, and concluded his interesting address with some sound advice to the students on the right

method of working, recommending them above all things to be *thorough* in all their doings.

Dr. Little's brief reference to the germ theory and Mr. Lister's antiseptic treatment of wounds is worthy of note. After complimenting Mr. Lister on "the zeal and ability with which he has propagated his ideas," Dr. Little observed—"'*Si parva licet componere magnis.*' The knife used in tenotomy is, it is true, a very small one. We are unable to reconcile the danger announced by Mr. Lister, of carrying germs of disease into the body, say with a new cutting instrument, or one perfectly clean in the ordinary sense in which the operator speaks of his instrument, with the fact that we ourselves have performed thousands of divisions of tendons subcutaneously, without in a single instance witnessing a particle of pus secreted from the puncture, even when subcutaneous incisions of considerable depth and range have been made. Surely, if the danger of introducing pus germs or putrefaction germs into the living structures with the knife existed, some one instance of suppuration after subcutaneous tenotomy should have occurred in our experience."

The text of Dr. Rutherford's Address at King's College may, we think, be said to have been the same as that of Dr. Clifford Allbutt's address at the Leeds School of Medicine, which we hope to publish next week—viz., "What is Disease, and Can we Cure it?" Both of the lectures are very good; but it may fairly be said, perhaps, that Dr. Rutherford handles his subject chiefly as a physiologist, while Dr. Clifford Allbutt treats it more from the Clinical Professor's point of view.

Want of space forbids our making any further remarks on the Introductories now, but we shall return to the subject next week, when we shall notice some more of the Lectures, especially those of Dr. Meadows, of St. Mary's Hospital, and Dr. Russell, of Queen's College, Birmingham.

THE PUBLIC SERVICES.

THE commencement of a new Medical Session appears to afford a favourable opportunity for the consideration of the relative advantages and disadvantages presented to junior members of the Profession by the Naval and Military Medical Services, and for the examination of the reasons which have rendered at least one of these services so unpopular that many vacancies still exist in it. The Army does not at present suffer from any dearth of candidates for its Medical appointments, while the Navy is constrained to recruit its Medical ranks from the superfluous aspirants for admission into the sister service, as so few directly offer themselves for it.

The reason cannot be assigned to inferiority of pay or comparative slowness of promotion in the Navy, as in both respects the Medical service of the Navy is superior to that of the Army. A Naval Assistant-Surgeon commences at 11s. per diem, which rate continues for the first five years; from six to eight years' completed service he draws 12s. 6d., and from nine till eleven, 14s.; under fourteen years' service, provided he shall have passed his examination for Surgeon while under ten years' service, 15s. 6d.; and above fourteen years', 17s. A Naval Surgeon on promotion, or under fourteen years' service, draws 18s. per diem; under seventeen years' service, £1; and for each additional year of service 1s. a day more until the maximum is reached—namely, £1 2s.

An Assistant-Surgeon in the Army commences at 10s. per diem; after five years' service he gets 12s. 6d.; after ten years' service, 15s.; and after fifteen years' service, 17s. 6d.; and, should he have the luck to be promoted in less than fifteen years, his pay will be 17s. 6d., and on the completion of fifteen years' service, 20s. per diem. So that in the Navy, after the first five years, pay is increased every three years, while in the Army the interval is five years, and the total amounts in twenty years' full-pay service are less than in the Navy, as may be seen from the following tables:—

Navy.

	Per diem.			Per annum.					
	s.	d.		£	s.	d.	£	s.	d.
5 years at	11	0	. . .	200	15	0	1003	15	0
3 „ „	12	6	. . .	228	2	6	684	7	6
3 „ „	14	0	. . .	255	10	0	766	10	0
1 „ „	15	6	. . .	282	17	6	282	17	6
2 „ „	18	0(a)	. .	328	10	0	657	0	0
3 „ „	20	0	. . .	365	0	0	1095	0	0
1 „ „	21	0	. . .	383	5	0	383	5	0
2 „ „	22	0	. . .	401	10	0	803	0	0
							£5675	15	0
Average annual pay . . .							£283	15	9

Army.

	Per diem.			Per annum.					
	s.	d.		£	s.	d.	£	s.	d.
5 years at	10	0	. . .	182	10	0	912	10	0
5 „ „	12	6	. . .	228	2	6	1140	12	6
5 „ „	15	0	. . .	273	15	0	1368	15	0
5 „ „	20	0(b)	. .	365	0	0	1825	0	0
							£5246	17	6
Average annual pay . . .							£262	6	10½

The Naval Medical Officer, therefore, during twenty years of full-pay, after first entering the service, receives in cash £428 17s. 6d., or an average annual amount of £21 8s. 10½d., more than his Professional brother in the Army. Similar differences might be traced out in the pay of the higher ranks.

As regards promotion, also, the position of the Naval Medical Officer for several years past has been better than that of the Military, and continues so. The Navy List for the present month contains the names of only three Assistant-Surgeons of 1859 qualified for promotion, and sixteen of 1860, and none of either year who have not passed the examination for promotion; while in the Army List of same date we find not only that there are fifty-two Assistant-Surgeons of 1859, but that above them stand ninety-nine of 1858, and forty-one of 1857, while below them are thirty-two of 1860. So that under the present condition of affairs the period for promotion in the Navy may be said to be under twelve years, and in the Army over fourteen. Half-pay is also better in the Navy than in the Army. In the former service an Assistant-Surgeon under five years gets 6s.; under eight years, 8s.; under eleven years, 10s.; above eleven years, provided he passed his examination for Surgeon while under ten years' service, 11s. In the latter, the half-pay of an Assistant-Surgeon under five years is 6s.; after five years, 8s.; and after ten years, 10s., without further increase. It must, however, be borne in mind that in the Army half-pay to Medical officers is only given during unfitness for service in consequence of bad health, while in the Navy it may occur on the completion of each tour of foreign service. But practically such is not the case, as, in consequence of the limited number of Medical officers in that service, no one, except at his own wish, is placed on temporary half-pay on return from foreign service, the rule being that six weeks' leave on full-pay is granted on return, and on its expiration the Medical officer is appointed to one of the Naval Hospitals or to a ship on the home station, where he would probably serve eighteen months or, perhaps, two years before again going abroad. The result is, that, except in case of bad health, there being no compulsory loss of service, a Medical officer can put in twenty years' actual full-pay service almost continuously. Cases, of course, occur in which this cannot be done, but we believe them to be exceptional. In this matter, also, of half-pay in consequence of bad health, the Naval Medical Officer does not occupy the same invidious position compared with that of officers of the military branch as does his Professional brother in the Army. In the Navy, all officers, on becoming ineffective on a foreign station, and passing a Medical board, are sent home on half-pay, which

(a) As Surgeon under fourteen years' service.
(b) As Surgeon over fifteen years' service.

commences from the date of the Medical board. In the Army, military officers, under the same circumstances, having appeared before a Medical board at home, can obtain leave by successive extensions on Medical certificate for eighteen months or two years before being placed on half-pay; but Medical officers can only obtain six months' leave for the recovery of their health, and if still inefficient at the expiration of that time, they must go on half-pay, to their great loss, both pecuniarily and departmentally.

We have thus shown some of the points in which "My Lords of the Admiralty" hold out higher inducements for young Medical men to enter their service than are presented by the War Office. For their want of success in procuring the requisite number they have themselves entirely to blame. Their want of faith in carrying out in individual instances the specific provisions which the wording of their warrants obviously suggests, their readiness either to limit in subsequent minutes privileges apparently accorded to Medical officers in others of earlier date, and to extend to members of the "civil branch" similar or even greater advantages by the levelling-up process, have produced in the minds of all Naval Medical Officers such disappointment and irritation as, reflected by their influence on the several Medical schools, and in their letters to the public journals, have generated an amount of distrust in the minds of students which it will take the Admiralty years of better policy to eradicate.

Naval officers of the executive ranks, while tenaciously and very naturally holding the necessary relative precedence of their own branch of the service—and to this no Medical officer can reasonably object—are, we believe, always ready to admit that outside their own executive circle the Medical service in practical importance takes the next rank, and is entitled to all the privileges of the executive branch, except, of course, that of command. They do not, however—whether reasonably or not does not come within our scope for consideration—look upon the other civil departments with the same favourable eye, and are less inclined to support the position of the Medical officers than they otherwise would be, as experience has taught them that every privilege gained by the Medical Department is either simultaneously or ultimately accorded to the other—more correctly styled—civil branches.

The Admiralty must therefore adopt a more consistent course as regards their Medical officers if they wish to fill up their vacancies and have a contented Medical Department. Content and efficiency are as inseparable as any other cause and effect. We have been at some pains to show that it is not the mere money consideration which prevents young Medical men from entering the Naval Service. We also feel assured that we have accurately stated the case between the Admiralty, their Medical Officers, and the Schools; and we cannot hold out any hope of amendment in the feelings of students towards the Naval Medical Service until the Admiralty prove by a steady course of well-doing, as regards their Medical officers, their regret for former shortcomings and the sincerity of their good intentions for the future.

The association of the candidates for admission into the Naval Medical Service with those for the Military in a common course of instruction at Netley will exert an important influence upon both Medical Services. It has been followed as a natural consequence by the appointment of Sir Alexander Armstrong, the Director-General of the Naval Medical Department, to a seat in the Senate of the Army Medical School. This change will probably in due course lead to others. As the number of specially trained Medical Officers of the Navy increases, a proportion of the Professorships and Assistant-Professorships in the School will fall to their share—the Presidency of the Senate, even, may devolve upon the Naval Medical Director-General of the time—so that eventually the School will entirely lose its claim to the title of "Army Medical,"—whether for good or evil remains to be seen. We confess to some forebodings on the subject, and are, indeed, surprised that the War Office authorities should have so readily assented to the initiatory steps of a proceeding which will leave with them a merely divided authority in an institution which, in its origin and development, has been so purely military as the Army Medical School at Netley.

THE WEEK.

TOPICS OF THE DAY.

The Hampstead Hospital Inquiry drags its slow length along, and bids fair to rival in length the Titchborne case itself. We still must reserve our comments on the main facts which have come to light, but we cannot refrain from expressing our regret that the defendants of the management of the Hospital should have sought to damage the cause of the accusers, and to divert attention from the real points at issue, by bringing against the Assistant Medical Officers the irrelevant charges of writing pasquinades, keeping dogs, and rat-hunting. These things, if they were proved most abundantly, would make not one iota of difference in the grave charges of mismanagement which are laid at the doors of the Hospital authorities. The faults or follies of Medical subordinates, even if they laid them open to the most adverse judgment, cannot excuse one tithe of the accusations made against the management of the Hospital. It remains, however, to be seen whether these accusations can be rebutted by the evidence for the defence.

Zymotic disease is steadily declining in London. The total of deaths was 1390, or 5 above the corrected average of the same week in the last ten years. From small-pox 51 persons died, and 153 from diarrhœa. Last week the deaths from diarrhœa were 205, and from small-pox 89. There were, however, 23 cases of death from enteric fever, a number above the average.

An account has lately been sent over by the Calcutta correspondent of the *Times*, of a family of hairy people, a mother and her children, who are said to be living in Mandalay, the capital of Burmah. A letter which appeared in the *Times* of Thursday purports to be written by a gentleman who saw the woman in Mandalay in 1859. He gives the following account of what Mr. Darwin, we suppose, would consider an excellent instance of recurrence to original type:—

"When I was at Mandalay in 1859 I saw this same woman and three of her children. The eldest and youngest were hairy like their mother, while the second, like his father, presented no such peculiarity. The husband was a man who, report said, had been induced to wed this woman to become possessed of the marriage portion which the King of Burmah had promised to bestow upon her on her bridal day. The bridegroom was a plucky individual at any rate, though his motives may have been somewhat mercenary. The hairy woman, whose name I now forget, had a pleasant and intelligent face; there was nothing whatever repulsive in it. The hair on the face and breast was several inches long; on the forehead it was parted in the middle and blended with that of her head. Of a light brown colour on her cheeks, it paled gradually towards the bridge of her nose and the centre of her lips, chin, and neck. Those of your readers who have a copy of Colonel Yule's narrative of the Embassy to Ava will see a good likeness of the woman and a description of herself and family."

The Calcutta correspondent of the *Times* writes that the woman's father was hairy. The persistence of the peculiarity through three generations, if so it be, would have furnished a telling fact in support of the argument of the late Dr. Prichard, that the production of the different characteristics of different human families was due, in part at least, to accidental, or apparently accidental, peculiarities becoming permanent.

Dr. Cholmeley has been appointed one of the Medical Officers to the Eagle Insurance Company, in place of the late Dr. Cursham.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

The meetings of the session commence this year in October, but, in consequence of the backward state of the alterations going on in the Society's premises, the first meeting will not be held until Tuesday, October 24.

DEATH FROM CHLOROFORM.

A death from chloroform, as in the case of other accidents, seldom comes alone. Of late, we regret to say, several instances have occurred in London and the country. On Thursday week an inquest was held on the body of a drayman, aged 34, at the Manchester Royal Infirmary, who, when admitted into the Institution, was suffering from a fracture of the leg. Mr. J. G. Gordon, House-Surgeon, attempted to set the limb, but, after several trials, failed, as the deceased shrunk from the operation. Mr. Gordon suggested that chloroform should be administered, and the patient assented. A rag sprinkled with chloroform was accordingly placed several times in contact with the face of the deceased, and Mr. Gordon frequently essayed to adjust the limb, but the deceased could not be got sufficiently under the influence of the anæsthetic, and each attempt was unsuccessful. The pulse of the patient suddenly ceased to beat. The usual remedies for resuscitation were resorted to, without effect. Mr. S. Buckley, Physician's Assistant, made a post-mortem examination of the body, and discovered fatty degeneration of the liver and kidneys. The brain was softened, and the heart flabby and much dilated. The witness was of opinion that death resulted from "shock to a dilated heart, whilst deceased was under the partial influence of chloroform." He considered the chloroform would not have had a fatal effect if the heart had not been so diseased. Verdict accordingly.

DEATH OF DR. BEAUPERTHUY.

As our readers are aware, Dr. Milroy has recently, on the recommendation of the Royal College of Physicians, been despatched by the Colonial Office to the West Indies, in order to investigate the reality of the alleged cure of leprosy by a procedure which Dr. Beauperthuy has for a considerable time adopted, the expenses of the mission being defrayed by the joint contributions of the colonies interested in the matter. He was instructed, first, to visit Demerara, where Dr. Beauperthuy was then engaged in putting his procedure in force, in order that he might have the opportunity of personal communication with him before proceeding through the other colonies on his tour of inspection. We understand that he was received in the most cordial and friendly way by Dr. Beauperthuy, who impressed him with a feeling of great respect for his truthfulness and earnestness. We regret having to add that in a letter received from Dr. Milroy, dated September 5, he states that this indefatigable French Physician, whom he had seen two days before in perfect health, had just suddenly died of apoplexy. Dr. Milroy intended shortly to sail for Barbadoes.

SPREAD OF DISEASE THROUGH CARELESSNESS.

It is useless for the authorities to provide means for the prevention of the spread of infectious diseases so long as the public will not take advantage of the means thus offered them. The utter carelessness of some persons is marvellous, as is proved by recent reports of police-office proceedings. The last case in point occurred a day or two since, when a magistrate fined a young woman 40s. for taking a lady suffering from small-pox to the Hampstead Hospital in a cab, instead of sending for an ambulance, which could have been readily procured at the workhouse or the Hospital. The defendant was also ordered to pay 30s. to the cabman for compensation for loss of time and the use of his cab for three days, during the process of disinfection. The defendant did not pay, and was properly sent to prison for fourteen days.

ARMY MEDICAL SCHOOL, NETLEY.

The winter session of the Army Medical School was opened on Monday, the 2nd inst. The opening address was delivered by Professor Parkes. The class consists of fourteen candidates for the Medical Service of the Army and nineteen for that of the Navy. Three Surgeons-Major, eight Surgeons, and fourteen Assistant-Surgeons of the Army Service are also about to go through the course. We observe that the candidates for the Naval Medical Service during the present session are on exactly the same footing as regards pay, appropriate uniform, etc., as the candidates for the Army. During the previous session the Naval candidates were actually Assistant-Surgeons, having been gazetted on passing the preliminary examination in London; they were borne on the books of one of her Majesty's ships at Portsmouth, and received the full-pay of their rank, and therefore occupied an anomalous position towards their fellow-candidates, as well as the officers of the Army Medical Staff at Netley. We are glad to learn that the Naval candidates of the previous session, who are now doing duty at Haslar Hospital, are favourably mentioned by the authorities, and are said to be doing credit to the training which they received at the Army Medical School.

THE LATE SUICIDE AT KINGSLAND.

The painful circumstances connected with the suicide at Kingsland are still fresh in the minds of our readers. We have on more than one occasion commented upon the facts, and have expressed our opinion that a coroner under ordinary circumstances had no right or power to order the examination of women for the purpose of detecting crime. In the case before us, the Coroner has explained satisfactorily that no coercion was employed, and that one of the women in the house desired that she might be examined. The Medical gentlemen, however, who acted—at all events, if not under the summons or warrant of the Coroner, certainly with his sanction for what they did—have been held up in various quarters to severe animadversion and reproof; clearly, we think, most unjustifiably so. A judge is supposed always to be acting under legal powers, and the Surgeons who were engaged at Kingsland were unquestionably impressed with this conviction. It is gratifying to us to record that at the annual meeting of the Herefordshire Medical Association, held last week at Hereford, the following resolution was passed unanimously:—

"That this Society hereby expresses its sympathy with Messrs. Barnet and Chattaway in the painful position in which they have been placed by the unjust comments which have appeared in several publications upon their conduct in the recent case of suicide at Kingsland. This Society is of opinion that their conduct, acting as they did under the written order of the Coroner, was marked throughout by delicacy, kindness, and propriety."

CHARITY AND INDEPENDENCE.

There is no more difficult question than the one relating to the dispensing of gratuitous advice in our Medical charities. There is no charity so much abused, and none the exercise of which tends to demoralise the recipient more hastily or effectually. We have noticed on several occasions the large sums which have been subscribed by the working-men of Birmingham for the extension of the Queen's Hospital. We are not altogether gratified with the proceeding. To some extent, it is worthy of commendation: but is it altogether beneficial either to the Hospital or to the working-classes? We scarcely think it is; and it is liable to be much misapprehended. Will not these working subscribers demand, as it were, that as a right which is in reality a favour? Is it not to be feared that this "system" may merge into a large Hospital club, and thus inflict great injury, not only on Surgeons in general practice, but also on the subscribers themselves? It will be curious to watch the result of the proceedings, and to determine whether the example set by the Queen's Hospital at Birmingham should or should not be followed.

THE SOCIETY FOR THE SUPPRESSION OF VICE,

In their report for the year just issued, refer "to the urgent need they have of assistance to carry out the important work they have taken in hand." Amongst the worst enemies of the public and the Profession are those heartless and illiterate quacks who, under the assumption of a title, prey upon the pockets and healths of their victims. One extract from the report before us will show that the Society has done good service to public health and morals, and that it is entitled to the warm support of the Profession—

"Great complaints having been made to the Society of the distribution in the streets, as handbills, of pamphlets, published under the title and name of Dr. H——, under pretence of giving Medical advice, these books being filled with details and descriptions of the most offensive and indecent character, and utterly unfit for circulation, especially among young persons—a summons was applied for as well against the man distributing them as against Dr. H——. On the hearing of the case, the Society obtained a decision from the magistrate that the distribution of such articles was illegal, whereupon the whole stock was delivered up for destruction, and Dr. H——'s undertaking accepted not to offend again, to come up for judgment when called upon, and to pay the costs of the application."

MIDDLESEX HOSPITAL.

At a general meeting of the Governors of the Middlesex Hospital held on Thursday, October 5, Mr. Andrew Clark was elected to the Assistant-Surgeoncy rendered vacant by the elevation of Mr. George Lawson, who at the same meeting was made a full Surgeon to the Hospital. There were nine candidates for the appointment, some of whom are already distinguished for work they have done. We, however, commend the staff for recommending to the Governors a gentleman who, having received the greater part of his clinical education and held the senior resident appointments at the Hospital, promises to make a careful and successful pursuit of Surgery. Nothing can be a greater encouragement to the students and tend more to improve a Medical school than the knowledge that all the highest appointments of their Hospital are open to those who will seek them by intelligence and hard work.

YOUTHFUL SOLDIERS.

"Send me men, not boys," wrote the great Napoleon on one occasion, when he required more soldiers in his Italian campaign. He had found from experience that the youthful conscripts could not bear the fatigue and privations of war. The raw levies and volunteers who endured such hardships and privations under Dnmoriez were men, not boys. The experience of our Indian army exemplifies in a remarkable manner the importance of sending to our eastern empire the full-grown and knit man. The *Pioneer* furnishes us with the following facts in illustration:—In January, 1870, a draft composed of one officer, one sergeant, two corporals, and sixty-eight privates arrived at Thayetmyo, Burmah, from England, for the right wing of the 76th Regiment. Their average age was 20 years and 23 days. From January to November, 1870, there were of this number eight admissions to Hospital, eighteen men of this draft were sent to India for change, nine died—eight from cholera and its effects. Of the eighteen men who were sent to India for change not one exceeded 21 years of age, and the ages of those who died of cholera did not exceed 20.

A USEFUL AND HEALTHY FLOATING HOSPITAL.

Much has been said against the *Dreadnought* Hospital ship with respect to its salubrity. Recent experience with the cases of small-pox on board that vessel speaks much in its favour. Since it was opened for the reception of persons affected with that disease, 1021 sufferers have been admitted, 1018 of whom were discharged cured, and only 3 have died. Should cholera appear in London, the *Dreadnought* is to be appropriated to the reception of patients.

HEALTH CERTIFICATES.

Nothing is more important to the public interest than certain examinations which are made of the health of persons about to enter the public service. This is more particularly the case when a pension is attached to the office to be filled. The examinations in question may appear to be harsh in some individual cases, but on the whole they are fair and equitable. It is announced that no person will be appointed to the public service in India, according to the recent decision of the Governor-General in Council, to a grade eligible to pension, without a certificate from a commissioned Medical Officer in charge of a civil station, that he has no disease, constitutional affection, or bodily infirmity unfitting him, or likely to unfit him, for the public service.

UNHAPPY LIVERPOOL.

Notwithstanding the able and persevering efforts by the spirited Officer of Health for this town, disease is still very prevalent. The Workhouse Committee state that relapsing fever is on the increase in the parish, and that the number of patients now suffering from it is thirty-nine in excess of the ordinary accommodation provided at the Brownlow-hill Workhouse. In this emergency, special sheds, which are usually devoted to the reception of emigrants who may have fallen ill in transit through Liverpool, have been appropriated to the use of the fever patients. A similar increase of the disease is reported to the Toxteth Board of Guardians.

A NEW POINT IN THE VACCINATION ACT.

New points of difficulty are constantly cropping up in reference to the Vaccination Act. Last week, at Manchester, the Public Inspector summoned a man for not bringing his child to him to show that it had been properly vaccinated. The magistrates ruled that, before they could convict, the Inspector was bound to prove that the child had been vaccinated, but this he had not done, and the summons must, therefore, be dismissed. A member of the Board of Guardians who was present at the inquiry said that he had offered the same evidence as the above in other cases of the same character, and the Court had never before ruled as they had ruled now. It is not right that so much ambiguity should surround the meaning of an important Act of Parliament.

SANITARY STATE OF OXFORD.

Preparatory to the return of the undergraduates to Oxford, the authorities of the City and University have been most energetic in carrying out measures to improve the health of the town. The results have been beneficial. Dr. Child has been appointed Sanitary Inspector to the University, and has been assisted in his duties of examining the numerous lodging-houses by Mr. Edward Collins, who was formerly the Relieving Officer of Oxford. The reports of these gentlemen are highly satisfactory.

FROM ABROAD.—EFFECTS OF ELEVATION ON THE ANIMAL TEMPERATURE — M. DEMARQUAY ON TRAUMATIC TETANUS — MEDICAL PRACTITIONERS IN THE CONSEILS GÉNÉRAUX.

Some time since (*Medical Times and Gazette*, October 9, 1869, p. 436) M. Lortet, of Lyons, made some interesting observations upon the effects produced on the economy by ascending mountains. Among these was the influence which this had in his person on the animal temperature. He stated that this was, when at Chamouni, 36½° C., but that after a day's ascending, he having gained the Grands-Mulets, half-way up Mont Blanc, a considerable fall took place, whilst when, next day, he reached the summit, after great muscular exertion, the thermometer, placed under the tongue, only indicated 32°. On a second ascent he found it at $31\frac{8}{10}$°. Dr. Forel, of Lausanne, feeling some surprise at this result, determined to test its

accuracy, and in the *Presse Médicale Belge*, September 24, we find an account of the results of the trials which he made. On leaving the Hôtel du Glacier du Rhone, at the foot of the Mayenwand, his temperature was 36·7°. Keeping the thermometer in his mouth, and reading it by the aid of a small mirror, he found that the temperature, stationary at first, slowly increased, and at the summit of the mountain reached 37·5°. After thirty minutes' rest it descended to 36°, and on the return by the Grimsel it again rose. A little puzzled by these results, Dr. Forel undertook a series of ascents, performing the rather difficult feat of always keeping the mouth closed over the thermometer, as he believed that M. Lortet, by allowing the cold air to gain access to his mouth, had given rise to the diminution of temperature which he has recorded. In this way he made more than fifteen ascents of the Glacier du Rhone, etc., and he always found the temperature rise during the ascents, as also during the descents. Whenever any falling was observed, the mouth had not been completely closed. Dr. Forel, it is true, has not ascended Mont Blanc; but, as some of his ascents reached as high as 3820 mètres, they amply suffice to prove the fact already known, that our temperature does not vary with altitude, and to show the cause of the fallacy of M. Lortet's observations, which seemed to contradict this position.

M. Demarquay recently addressed a short communication to the Académie des Sciences, giving an account of a new mode which he has adopted of treating traumatic tetanus. Having, he says, during the late siege lost many cases without being able to alleviate them, he resolved in future to try a new procedure. First bearing in mind the great susceptibility to cold manifested by these patients, and the aggravation of the suffering which this produced, he kept the two cases he now reports upon in a room heated to and carefully kept at a temperature of from 18° to 22° C. (64° to 72° F.). Next, in order to diminish the tonic and clonic contractions, which are in this disease so painful, causing the patient to assume such strange positions, and especially to subdue the trismus, which is one of the earliest manifestations of tetanus, as well as to relieve the pain of the wound and the convulsions of the stump, he performed, four or five times in the twenty-four hours, intra-muscular injections, as near as possible to the emergence of the nerves. These consisted of solutions of morphia diluted to a fiftieth part. At first each masseter was injected, as also the muscles of the neck on each side of the spinal column; and when the wound which had been the occasional cause of the tetanus was painful, an injection was thrown deeply into the substance of the muscles in its vicinity. Under the influence of these remedies the sufferings were speedily assuaged, and the patient was enabled to open the mouth, and by copious drinks relieve the tormenting thirst. By aid of these, too, and the raised temperature of the room, abundant transpiration was produced. After some hours the injections were repeated, the painful contractions being pursued wherever they appeared, throwing them into the substance of the muscles concerned. They were also made over the track of the nerves of the diaphragm, to subdue the spasm of this muscle, or along the course of the pneumogastric, with the view of relieving the difficulty of deglutition, which appears to depend upon contraction of the œsophagus. In this way the pains were assuaged and the thirst relieved, while the patient was able to be fed with broths, milk, and an increasingly substantial diet. One of the two cases was suffering when seized with tetanus from a deep wound of the calf in process of cure, while the other had undergone amputation of the leg. In both the tetanus to all appearance was very severe; and although, of course, two cases do not say much in favour of any mode of treatment, their successful issue justifies its being made known. Frequently subcutaneous injections of morphia, atropia, and curare have been tried, but, as far as M. Demarquay is aware, no one has hitherto thought of carrying the curative agent deeply into the substance of the muscles. This is, he believes, both a novel and rational procedure.

As we are all aware, the elections for seats in the Conseils Généraux and Conseils d'Arrondissements are at the present time exciting great interest and exertions in France. This of course is chiefly in relation to political operations, and as a means of acting upon the opinion of the country. We are glad to find, however, from a recent number of the *Union Médicale* that there are a great number of Medical men among the candidates; and that journal proffers some very wholesome advice to those of them who may prove successful, counselling them to eschew politics and attend strictly to the numerous social duties which the office should entail. We had no idea that there were so many of these for which a Medical training supplies one of the best preparatives.

"We are rejoiced at these candidatures, and desire their success, for Medical men will be well placed in these Councils, and will be able to render therein most useful services. It is far preferable to find them there than in the Legislative Assembly, where they are lost among the politicians, lawyers, and rhetoricians. When we consider the nature of the most essential of the duties which devolve on these Councils, we are tempted to ask whether an intelligent and provident law would not have rendered the presence of one or more Medical men obligatory. Observe, in fact, what are the questions that come before them—public hygiene in all it applications, public assistance in all its forms, hospitals, hospices, bureaux for aid and charity, Medical assistance in the country, lunatic asylums, the salarying and encouragement of learned societies, the instruction of midwives, where the department is the seat of a faculty or school of Medicine, all that relates to such centres of instruction, the employment of women and children in factories, vaccination, epidemics, foundling and nurse children, the administration of mineral waters. These, and many other things like them, primarily relate to Medical competency, without the aid of which it is difficult to think how they can be disposed of. Medicine is 'social' science *par excellence*, for *social* here means science based on the principles which govern human societies, and not on the senseless and perilous Utopias of demagogic socialism.

"These candidatures, then, are quite legitimate, for the post may prove highly useful, on the condition, however, of eschewing, as far as possible, all ideas of party politics. Let us Doctors have but one policy—that of saving France; that of contributing to her physical, moral, and intellectual regeneration. We can do something towards this; I do not say much, in order to avoid all exaggeration and Professional boasting. If we desired it, thanks to the *cautionnement* which has, we know not why, been inflicted on our journal, we might deliver a political discourse on this matter; but may God and all the saints of Paradise preserve us from so dangerous a folly! Our wish is to keep strictly within the domain of Medical science, and it will not be our fault if this trenches on politics and sociology. What none of our brethren will contest is the magnificent prognostic of Descartes, of the inevitable perfectioning of the human race through the science of Medicine. Well, let us be able ourselves to show that Medicine is worthy and capable of aspiring to such high destinies; and this will be brought about less by our mingling in the sterile agitations of politics, than in demanding those ameliorations upon which depends the realisation of the ancient but always present programme—*Mens sana in corpore sano.*"

THE ITALIAN UNIVERSITIES.—There are in the kingdom of Italy seventeen Royal and four Free Universities. The Royal are those of Bologna, Cagliari, Catania, Genoa, Macerata, Messina, Modena, Naples, Padua, Palermo, Parma, Pavia, Pisa, Rome, Sussari, Sienna, and Turin. The four Free are Camerino, Ferrara, Perouse (?), and Urbino. Among these the following have Faculties of Medicine and Surgery, viz.:—Bologna, Cagliari, Catania, Genoa, Messina, Naples, Padua, Palermo, Pavia, Rome, and Turin. The total number of students registered for the session 1870-1 is 7238, those of Naples not being registered. Of these, Bologna has 568; Genoa, 412; Modena, 354; Padua, 1110; Palermo, 274; Pavia, 789; Pisa, 571; Rome, 726; and Turin, 1469.—*Gazette des Hôpitaux*, September 28.

THE HAMPSTEAD HOSPITAL INQUIRY.

SEVENTH DAY.—*Continued.*

THIS inquiry was continued on Thursday, September 28, before Mr. Henley and Dr. Buchanan, the Special Commissioners of the Local Government Board, at the Asylums Board Offices, Norfolk-street, Strand.

The Managers were represented by Mr. Montagu Williams, Mr. Humphreys, and Mr. Hammond; Mr. Collins, with Mr. Bucknill, represented the three Assistant Medical Officers who had written the charges against the Hospital management to the *Times*—Messrs. Greaves, Kynaston, and Aikman.

Our report last week broke off at a point in Mr. Aikman's evidence in chief. He had informed the Commissioners that he had made a complaint in writing that children under his care on August 5 had not been supplied with eggs, and that this complaint was returned to him with the word "bosh" written on it, and initialed by Dr. Grieve.

Mr. M. Williams said he should be prepared to show that the eggs in question were supplied half an hour later.

Mr. Collins: Then the order was not "bosh"?

Mr. M. Williams rejoined that the word "bosh" was placed on the high-flown language of the written order.

The witness proceeded to give another instance in which eggs were wanted for witness to inject into the stomach of a patient, but none were to be had, and he had to leave the Hospital for the night without doing this. The patient died four days later in the height of the disease. Then another case was that the steward refused to supply eggs for a patient, and witness spoke to Dr. Grieve on the subject, and he said that the steward was right in refusing them. The patient had eggs afterwards, but he was without for two or three days. The primary order in this case was countersigned by Dr. Grieve, and on witness writing "repeat" each day on the card, the eggs were supplied continuously for several days without extra countersign, and then they were stopped. A complaint in writing was made on August 12 by the witness that children whom he had not seen were still having eggs and wine, the nurse obtaining the eggs and wine without his orders. The children had been allowed to go out in the grounds without his permission. Another complaint was to the effect that medicines were not regularly administered. Witness was present on August 10, when a dispute arose between Mr. Kynaston, Mr. Greaves, and Dr. Grieve, which ended in Mr. Kynaston saying he should report Dr. Grieve, and Dr. Grieve saying, "Then I suspend you; it is an act of insubordination to threaten your superior officer."

Mr. Collins then made a demand that the affidavit made by the witness in the Stokes case should be put in.

After some discussion, the affidavit was read. It ran thus:—

"I am Assistant Medical Officer of the Hampstead Small-pox Hospital. I have been there in that capacity since May 1, 1871. I have read an article in the *Echo* newspaper of July 3, 1871, and I can identify the case of 'Louise,' to which the article refers, as that of Louisa Stokes, who was admitted into the Hospital on May 5, 1871. I saw her on the evening she came in, and she was then suffering from a very severe attack of small-pox, and in a very low state of health. She bore no marks of vaccination, and she had evidently been ill some time prior to her admission into the Hospital, and was altogether in a very reduced condition. I saw her thrice a day during the period she was in the Hospital, sometimes oftener. That would be to June 20, 1871, the day she was removed. Every possible care and attention was paid to her. She was not recovering rapidly or in a satisfactory state, and I therefore ordered the attention of the Medical Superintendent to the case. Everything was done for her that Medical skill could prescribe, and the Sisters in charge of her gave her every care and attention that could possibly be given. I never expected she would recover. She recovered from the primary disease of small-pox, although she had the complaint so severely; but as her convalescence did not progress as satisfactorily as I could wish, I thought it desirable that she should be removed, in the hope that change of air might do her good. She had one eye seriously affected as a consequence of the disease, which is not an uncommon occurrence in so severe a case of small-pox as that of Louisa Stokes. I dressed her eye, and everything was done that could be devised to save the sight. Notwithstanding that a water-cushion was supplied by my directions, she was suffering from bedsores, which were unavoidable. The very emaciated condition of the child predisposed her to contraction of the limbs; so much so that she could not turn in bed without assistance, or straighten her limbs; neither could I do so without putting her to such pain that I thought it desirable to leave her alone. "JOHN AIKMAN."

Cross-examined by Mr. Williams: It was on July 24 that my two colleagues were dismissed, and it was then I sent in my letter of resignation. The letter sent to the *Times* was a joint composition, and was written in our room at Hampstead. We meant by the last paragraph in the letter—"Had we remained we should have trusted to our own energies to keep down mismanagement"—that we should have done our best. We should not have published the letter if we had remained. We arrived at the determination to send the letter long before Dr. Grieve took the management out of our hands. (The witness was handed his written reports.) I do not find in my written reports any complaint which comes under the head of the first charge in the letter to the *Times*. I never wrote any one report to come under that head (the tying down of children). I thought the tying down decidedly improper. If that tying down rubbed off some portions of the eruptions, as I saw it do sometimes, it was certainly damaging to the recovery of the patient. Mr. Williams pressed the witness to answer why he did not, if he considered the tying down injurious to the patients, report in writing. Mr. Aikman said that they had no written form of report at that time, and that he complained constantly to Dr. Grieve. "The first written report I made was on June 23, and after that the practice diminished. I have reason to believe that the tying down went on in some few cases. I saw it until I left. I went on May 1 to the Hospital. I have been present when a patient was strait-waistcoated, but never when one was tied down." Mr. Aikman said that he had assisted Sister Caroline on one occasion in putting on a strait-jacket, and showed her how to do it securely, and that to supply the place of a broad band he had directed that a sheet should be used. He allowed that the sheet was fastened to the bed. The sheet was applied to a woman who had been previously maniacal. That was her history before her then illness. I showed Sister Caroline how to use the sheet properly. The patient thus restrained had a very mild attack of the disease, and she was tied down because of her maniacal tendencies. I made complaints to Miss Harrison, Sister Caroline, Bonfield, and others. I did complain as well to Sister Agnes and others. I did not disapprove the use of the strait-waistcoats in all cases, but I disapproved their use without Medical advice. He owned that he had seen the Committee of the Hospital officially, but he had not considered it necessary to say a word to them about the practice of tying down which he so much reprobated, even though he knew the practice existed. The condition, too, of the wards with regard to the milk remained something like what he had described, and still he did not report in writing when it became his duty to report in writing all his complaints.

Mr. Williams read a letter written by the witness to the *Times* in reply to one by Mr. Wyatt. The letter said—

"1. In answer to our repeated representations, we were officially informed by the Medical Superintendent that neither the local nor the general committee would consider any complaint regarding the management of the Hospital made to them by the Assistant Medical Officers. 2. We were officially informed that our only mode of complaint was to furnish him with the facts in writing on the back of the Assistant Medical Officer's daily report. 3. I beg to refer the Committee and the Medical Superintendent to the above-mentioned reports, where they will find full details of the facts mentioned in our letter officially reported at the date of their occurrence."

The letter was signed "John Aikman," and appeared in the *Times* of September 2.

The witness had heard the reports of his colleagues read over to him in their room, and he was asked to take up the reports of himself and his colleagues—the reports he had referred to in his letter to the Editor of the *Times*—and point out the "full details" of the facts mentioned in the previous letter—the letter which had been the means of this inquiry being held. The witness went over the reports, and he found that complaints were made on three only, and these had reference to the shortness of milk in certain wards at night. He acknowledged, "When I wrote the letter I believed complaints were more numerously written in the reports." The witness was then questioned as to the reason why he had not made complaints in writing. He acknowledged that he ought to have reported the case of one of the children found dead. He still maintained that the meat was bad, but he did not think it his duty to report the complaints of the patients and nurses in that form. "There was no recognised authority for me, as a paid servant, to report to, for I did not regard the Committee as my authority

Dr. Grieve was my superior, and I did not report to him after his saying that the nurses were the people to complain. All the heads I wrote upon to the *Times* existed throughout my being there. The reason I did not write before was because it takes a long course of endeavours and only after a great many other means are exhausted that I consider such a proceeding justifiable. I heard the Committee issued fortnightly reports. I did not think it was my duty to report to the Committee. I never tried the Committee, but my colleagues did, and they were dismissed. It was on the day they received their dismissal, *post hoc propter hoc*. I did not hear their complaint: but I saw the letter, and the Committee would not hear the charges."

Mr. Williams: I will read the letter they sent. It is dated July 24, 1871, and is addressed to the Chairman of the Hampstead Hospital Committee. It said—

"Sir,—We, the undersigned Assistant Medical Officers, having been informed by Dr. Grieve that he is about to bring charges of disobedience and insubordination against us, beg that the Committee will proceed to a thorough investigation of such charges in our presence.—We beg to remain your most obedient servants,—William Greaves; A. E. Kynaston."

Now, what do you mean by saying that their dismissal followed their complaints?

The answer was, the witness had reason to believe that the Committee would not listen to complaints. He went on to reply to questions,—I never made a complaint in writing of the filth of the beds, nor did my colleagues, and these existed in July and August. I never saw the filthy state of the towels and the vermin. If this condition of things existed, it does not necessarily follow that I should have seen it. It is very probable I should have seen it.

Dr. Buchanan: Can you help seeing vermin on the towels in the wards?—There were no towels in the wards. I have seen vermin there.

By Mr. Williams: The vermin were brought in by patients, generally by children; and when there it is hard to eradicate them. About the want of nurses in the month of August, when the Hospital was tolerably full, the case of the child with the bad head occurred. I did not trust to the memory of the nurse with regard to the treatment of the head—it requiring carbolic acid and oil. The number of nurses was very considerably inadequate to the requirements of the ward at that time. There is a column in the cards over the patients' beds for "treatment"; but poultices and such like would not, I consider, be necessary to put on the card. Dr. Grieve once told me that a water-pillow was not to go upon the card. It was the sole duty of the Sisters to remember those things. My duties would take me from ten o'clock in the morning until sometimes one o'clock. At one time I was done at half-past eleven. This was after seeing Dr. Grieve in the bedroom. Then the after-duties were somewhat irregular and variable. The second visit would begin about half-past eight, and would only be to the wards and to dangerous patients, and I left the Hospital at about ten at night.

In further examination he was asked whether he could not have stopped and put the carbolic oil on the child's head, and so have relieved the sufferings of the child, and assisted the nurse, and he said that if he had done so he might have done it all round. With regard to the filthy wards, he said they were continuous; and then a letter was put into his hands, and he owned it was in his handwriting. This proved to be a testimonial to a nurse named Daly, whose ward, he stated in the letter, he always found in order, and "invariably clean," with other praise of a high character.

The cross-examination was then adjourned until Friday.

Eighth Day.

On this day the cross-examination of Mr. Aikman was resumed by Mr. Montagu Williams. The witness was first asked questions upon certain testimonials given by him and his fellow Assistant Medical Officers to different nurses—viz., Nurses Jenkins, Shufflebottom, Etaby, Meredith, Manning, Fury, and Harris. He admitted that the nurses to whom testimonials were given were the majority of the principal nurses. He said he believed that in every case in which testimonials were given they were thoroughly deserved. He had only tasted the beef-tea once, and had not tasted it in the children's wards. Mr. Aikman was then examined at great length on his affidavit as to the condition of the child Stokes. He defended the substance of the affidavit, and reiterated its truth; but he said that one reason why he had recommended the child's removal from the Hospital was because the child was insufficiently nursed. He had not stated that the child was insufficiently nursed because he was not asked.

If you recommended that the child should be removed because you thought she was insufficiently nursed, why did you not say so in this affidavit?—Because I was not asked, and I only answered what I was asked.

I will take that answer. You knew this was on a charge of libel that you were making an affidavit before a magistrate, and yet you say nothing about this insufficient nursing?—I could say about it, or not, as I chose.

You mean to say you can swear to facts or keep them back as you choose?—Yes, I could swear or not swear what I liked.

You swore this in your affidavit,—"She recovered from the primary disease of small-pox, although she had the complaint so severely; but as her convalescence did not progress so satisfactorily as I could wish, I thought it desirable that she should be removed, in the hope that change of air might do her good." Now, Sir, having refreshed your memory as to what you have sworn, do you think you had her removed because of "hope that change of air might do her good," or because of the bad nursing you say she was receiving?—Both.

Then now, in point of fact, you say the article against which your affidavit was drawn was true?—Well, there were faults.

Now, don't you think that if you had added to your affidavit—to that part of it where you speak of her being removed "in hope the change of air might do her good,"—the words "and because of insufficient nursing," you would have justified the *Echo* article then and there?—I do not think so.

Then, why did you not have these words put in your affidavit?—Well, Dr. Grieve was aware of it, and could have asked for it. I am not sure it was not said.

The witness was also cross-examined as to his statements respecting the non-supply of eggs when ordered, and the insufficient quantity of milk; also in reference to finding the child who had died, and the dead body of the man in the bath-room, but nothing new was elicited.

He was next examined as to some placards of the pasquinade type which had been hung up on the walls of the sitting-room of the Medical officers. Of the following one he said he was the author, though he did not stick it on the wall:—

"Wanted, three active and unscrupulous young men, utterly devoid of any principles of honour. Applications must contain *cartes* and fighting weight, as the Superintendent is a man of little physical but immense mental power. All applications must contain previous experience with bullies, but strict secrecy as to the treatment of colleagues must be sworn to. These qualifications, with a total oblivion as to personal honesty, will be sure to secure the situation for the most enthusiastic applicant."

He was also examined in reference to the quantity of beer drank by the three Assistant Medical Officers. He emphatically denied that they had drank seventeen pints and a half of beer a day. He was also asked about some rat-killing by dogs which took place on one occasion at the back of the Hospital, at which the Assistant Medical Officers were present.

Mr. Aikman said, "It is not true we kept fighting-dogs. There has not been a single complaint, that I am aware of, against us, about our drinking too much beer, about keeping dogs, and such like."

Mr. Collins read a minute from the report of the Committee of the Hospital to the whole Board, the minute being dated July 31 last. It stated that the Committee had given notice to dispense with the services of the whole staff at Islington (referring to the closing of the Convalescent Home), and also of the reduction of salaries to the Medical Superintendent, chaplain, matron, and house steward, "in accordance with the arrangements made with them when the establishment was opened." The Committee thought it due to the chief officers to express their sense of the zeal displayed by the staff in simultaneously working the two large establishments over a period of eight months, during which more than 5000 patients had been treated. The minute proceeded to say that as the Medical Superintendent had expressed his opinion that by the closing of the Islington Convalescent Home he hoped, with the reduced number of patients, the establishment at Hampstead could be worked with one Assistant Medical Officer, the Committee had given Mr. Greaves and Mr. Kynaston notice that their services would be dispensed with, and Mr. Aikman having tendered his resignation, it had been at once accepted, and the Committee were taking steps to supply his place. Mr. Collins put it to the witness whether any other reason than the reduction in the

staff was ever given for dispensing with the services of his colleagues, and the witness replied—after some discussion had arisen as to the question being permitted, the witness not having been present when the notices were given—that the morning after he heard Dr. Grieve say that he was commissioned by Mr. Wyatt to say that the reduction in the staff was the sole reason for dispensing with the services of his colleagues. This was after the "rat business" and after the allowancing of beer.

Dr. Buchanan then put some questions to Mr. Aikman in reference to different parts of his evidence, but no answers were elicited which in any degree materially affected his evidence given in chief.

At the termination of this day's proceedings the inquiry was adjourned until Monday, October 2.

Ninth Day.

Mr. Aikman being recalled,

The Chief Commissioner then asked him: You have said you thought the tying down injurious when it rubbed off the small-pox sores. Do you know of anyone who was materially injured by such rubbing off?—I cannot say that; but I have seen portions of the eruption rubbed off.

Understand my question, and answer it as closely as you can. My question to you is to find whether you think any patients had their recovery materially impeded by this?—Well, it is an extremely difficult question to answer, and I will answer it by saying that I do not know of any case in which I could trace any injury leading to a fatal result. That is the best answer I can give you.

Did you ever see the skin of any patient lacerated deeply by the tying down?—I never saw that.

I want to know whether any one had a temporary or permanent injury owing to this tying down?—Well, I have seen the skin rubbed off.

Was it deeply lacerated?—Oh, no; the skin was only rubbed off.

Was it any worse than is caused by a child scratching itself?—Not any worse.

He was then questioned about the management of a Hospital in Glasgow, in which he had served, as compared with that of the Hampstead Hospital. He said: At Hampstead I have had to complain of dead bodies being left in wards. I remember a body in Ward 3 being left there nearly all day. It was that of a person who died shortly after the morning visit, and was there at four o'clock when I made an afternoon visit. It must have been there about five hours. It was removed when I made the evening visit. I made no complaint of that to Dr. Grieve. I spoke to Sister Caroline about it. I think that is about the longest time I know of a body being left. I cannot remember any other. That was in July, and I do not remember the name of the person whose body it was.

The cross-examination of Elizabeth Haynes, a nurse, whose examination in chief was taken last week, was then commenced. The first part of the cross-examination was an attempt to throw a doubt on the reliability of the witness by eliciting the fact that she had some pots of jam in her possession, which, however, she said were her own property, as they were given to her when a patient in the Hospital, before she became a nurse. In reference to a child whom she represented as dying a few hours after having been taken out to play, the following information was elicited:—"Children who were too ill to walk were taken out on beds and placed in the sun. I never heard the Doctors order children to be taken out into the open air; but I have taken children out by the orders of Sister Agnes, and the one I referred to as dying soon after going out I took out and put on the bed in the air. This was about four o'clock in the afternoon, and its name was Sarah Smith. The child might have been out in the morning. I fetched her in on the same day at half-past twelve to dinner. I had taken her out in the morning, and I did so as well in the afternoon. (The evidence in chief of the witness was here read, and it was shown that she gave twelve o'clock as the time when she took the child out "to play.") What I meant to convey by "to play" was that I placed her on the bed to play with other children. The child was dressed by Sister Agnes. I am certain this was Sarah Smith. I do mean to say she was out on the day she died. The child, Sarah Smith, was not unable to sit up, for she used to sit up sometimes. She sat up on the bed and played with the others the day she died. Then I mentioned a child, Alice Mary Clayton. I did say that this child was ordered a bath at ten o'clock in the morning, and that the child was dead in bed at a quarter past twelve. The child did not die on Sister Agnes's lap while she was washing and dressing it.

The next witness was a man who had been a patient—Thomas Jones, a mechanical draughtsman. He deposed to having seen patients tied down, to the scanty supply of milk, to the nasty taste of the beef-tea, to the bad character of the food, to the filth and damp of the sheets, to the vermin, the dirty state of the clothes provided for convalescents, and to the insufficiency of the washing apparatus. He produced a copy of a letter of complaint which, he said, had been signed by sixteen patients, and had been sent to a daily paper, but which had not appeared.

At the end of this witness's cross-examination, Mr. Williams said he did not wish to point out to the other side how they should conduct their case, but he hoped they would follow out the evidence they had lately brought forward (referring to Mr. Aikman and the nurse's evidence) by continuing this class of witnesses.

Mr. Bucknill replied that his side proposed to continue the evidence of patients, Mr. Aikman and Haynes being introduced through others being absent. His side proposed to exhaust the patients first before taking other evidence.

Mr. Williams added that his side's patience had been already exhausted.

The case was then adjourned until Tuesday.

Tenth Day.

The witnesses examined on Tuesday were J. G. Palmer, a wine and commission agent, William W. Todd, a printer, and Elizabeth Fowle, the wife of Mr. Fowle, watchmaker, each of whom had been a patient in the Hampstead Hospital. The two men gave evidence which supported the statements of other witnesses as to the tying down of patients by nurses without Medical orders, the scantiness and bad quality of certain articles of food, the filth, vermin, and insufficiency of nurses.

Mrs. Fowle, who said she had heard of this inquiry from the newspapers, and who came forward to volunteer her evidence, gave a similar account. She had gone into the Hospital with her baby, who had the small-pox as well as herself. She described the sheets of the bed in which she was first placed as filthy in their condition; and she deposed to seeing a woman, who subsequently died, tied down. She complained of the shortness of milk in this ward; and she found it very short, she said, as she wanted it frequently. She did not always get it when she wanted it; she was told "presently," or that there was none. At other times she had water given to her to add to the milk "to make it last." In witness's opinion Nurse Meredith was not in a fit state (being, as the witness said, pregnant) to perform her duties as a nurse, and she was greatly less energetic than the night nurse, and less kind.

Mr. Williams remarked that Nurse Meredith received from the Assistant Medical Officers the highest testimonials.

The witness proceeded to give, as an instance of the want of attention on the part of Nurse Meredith, that a girl in a dying state asked for milk for five hours without getting any, and then witness gave her some, getting out of bed to do this act, for which Nurse Meredith stopped her beer. The girl mentioned died at two o'clock the next morning after this. Witness's child was taken worse on March 9, at a time when witness was getting better. The child, which was 16 months old, was once taken away and placed in an empty bed, but on being brought back on witness asking for it, Nurse Meredith said she brought it back on the condition that no more trouble was given to her by the witness. Witness had asked repeatedly for clean linen, and was told that no one could be got to wash the linen, and, therefore, "shift" must be made. Witness "made shift" with the pillow-cases, and though she had some clean linen every day, the state of her child would not permit her to keep herself clean. She asked for water, but she could not get it. Her child died on the 11th, and to the 14th from that date she did not touch water. She went from that ward to No. 8 (convalescent ward), and though a bath was there she could not use it, as the water in it was almost black. The patients were told not to interfere with the bath as it was out of order, but as many could wash as the water would permit. Her clothes were not changed when she went to No. 8 Ward, and at that time her dress was stiff up to her arms with filth. There was no day nurse in the convalescent ward—not that she saw, and her bed in this ward was in a filthy state. She was asked by the patients in the ward if she had looked for the "Hampstead donkeys." She did not know what was meant, but on looking into the bed she found three—live vermin she meant. The sheets were in a

dirty condition—dirty from use and dirty otherwise. She had to wait for clean clothes to wear, and so was obliged to use the bed. Then, the meat she was given was bad, served out in coarse and vulgar-looking pieces; it was like cats'-meat, and it was very badly cooked. She said she would decidedly say that what the patients got for a ration would not represent six ounces of uncooked meat. The patients, one and all, complained of the quantity and quality of the meat; on one occasion the patients placed all their rations back, and on that day not one ate her rations. The potatoes were very bad—always diseased. She was very weak when she left the Hospital, and she attributed that weakness to want of food. Though Nurse Meredith might have acted to Mr. Greaves's "entire satisfaction," as stated in the testimonial read, she had not so acted to the patients under her. Mr. Greaves was deceived in his view. Mr. Kynaston, in speaking of Nurse Meredith as a "faultless" nurse, was also deceived. Witness did not think she was deceived in her estimate of the nurse. The bread in the Hospital was very good; but the butter was not so good—it was salt, and not well-tasted. It was not "fresh" butter. All the time she was there the butter was bad. It would not astonish her at all to hear that some said it was good, for tastes varied. The potatoes were hard—they were old—but she would not expect new potatoes in March. She heard one patient complain to Dr. Grieve for the whole of the ward about the meat being very bad, and not fit for a dog. He said nothing, but walked on. She complained once to Mr. Greaves of not having milk for her baby, and he called the night nurse, who was called the kind nurse—not Meredith—and told her to get some for witness and her baby. The Medical man visited the ward morning and night, but she did not remember seeing a Medical man visiting Ward 8—not visiting the patients—the whole four days she was there.

By the Chief Commissioner: There was no improvement in the meat after the complaint to Dr. Grieve that she knew. There might have been, but she did not taste it. The tea, coffee, and beef-tea were very bad. She complained of the bad quality of the food given rather than of the quantity, for her appetite was bad and she could not eat all she had. When on low diet she had about a pint of milk a day for her child—she did not require it for herself; but it was more difficult to get of a night, and she only got half a pint during the night hours. Her child was an unvaccinated child.

Re-examined by Mr. Collins, the witness said that Mr. Greaves, who attended her, was most attentive.

In reply to Dr. Buchanan, the witness said she could not remember seeing Mr. Greaves in the wards between the hours of the night visit and the morning visit. She also replied to some general questions.

The inquiry was adjourned until Wednesday.

Eleventh Day.

This day was taken up with the examination of Thomas Ellestie, a waiter; George Tidbury, a tailor; Edward Wilson, a chairmaker; Arthur Partridge, a bootmaker; and Edward Benyon, a draper's assistant. With the exception of the last-named witness, these persons were all kept at the Hampstead Hospital at the expense of their parishes. They gave evidence confirmatory of that given by the previous witnesses in the principal details. One patient, Arthur Partridge, deposed to having been allowed to stand three-quarters of an hour naked in the receiving-ward. His clothes were taken away, and he stood half an hour before a damp shirt was brought to him, and then a quarter of an hour whilst he was drying it.

Edward Benyon, the last witness examined, paid for his maintenance whilst in the Hospital. He gave his evidence in a perfectly calm, unexaggerated manner. He said he had a damp shirt given to him on going in; and he deposed to seeing patients tied down. He also spoke to the shortness of milk while he was on low diet, and when on ordinary diet the meat given was "like guttapercha," and was little in quantity. Then, when a person died, the body was not removed until about an hour after the man died, although the body might stink very much. The bread given in the Hospital was "very fair," but the butter was very bad. He complained to Mr. Jones, the wardsman, who told him to tell the cook. He complained of the dirty condition of the bath in the "hut" wards, and stated that these were covered with loathsome vermin and filth. One of the general complaints which the witness made was that the hut patients were kept without their dinner until three o'clock in the afternoon, because the meat was not cooked.

Questioned by Dr. Buchanan, the witness said the day nurses came on at six and the night nurses went off duty at half-past eight. The day nurses did not go round the wards and see how the patients had been going on during the night, nor did they go round with the night nurse to inspect the patients. They did not inquire of the night nurse how the patients were going on, and he was only asked once by a day nurse as to how he was. The day nurse never gave medicines before breakfast. He never remembered an instance of a ward being left without a nurse, for one at least would be there in the early morning, putting the beds straight. The patients got nothing for breakfast but tea and bread-and-butter. The night nurses went off duty before the breakfast was served, and the day nurses occupied themselves with handing the food about, but they did not feed the patients. There were many patients who could not sit up and help themselves, and he thought he had seen about four at one time so unable to sit up. These had a little table from which they could reach their bread-and-butter. He did not see any patients too ill to do this.

The witness was further examined by the Medical Commissioner respecting the manner in which the general routine of the ward-work was carried out, as to the emptying of slops, the sweeping of wards, making of beds, and such like, part of which work, it transpired, was done by convalescents. Clean linen, he said, did not come in every morning, and he had seen some come in twice in five days. He had seen the beds made for every patient; but he did not see nurses wash the patients. He never saw one washed by a nurse, nor was the discharge from their skin attended to in any way. He had seen the nurses cut some patients' hair; but he did not see them apply anything to the head. The Sister of the ward used to see the night nurse every morning—the night nurse waiting to see the Sister. The Doctor's visit was at about the same time every day—always at about eleven o'clock in the morning. After that was over there were preparations for dinner, and for this the nurses cut the bread, and about six patients who were up took the dinners to those who were in bed. Between one o'clock (that was after dinner) to the tea-time the nurses had little to do, generally sitting down reading. The Sister gave the medicines. The nurses generally, when sitting down, would attend to the call of any patient. He considered the patients were fairly taken care of during the day.

Dr. Buchanan: Do you consider the nurses were over-worked?—Oh, dear no.

How long do you think it would take them to do the work they did in the ward if they had not to wait upon patients?—About an hour and a half.

You think the day nurses might have done their work in an hour and a half?—I do.

The witness then proceeded to state further that the night nurses came on at half-past eight at night, and then the day nurses left; but they did not go round to any particular cases. He never saw wine or whisky in the ward. A man in the next bed to him was ordered whisky, but he did not get it. There was only one night nurse between Wards 4 and 5, and her work lay principally in No. 5. He never saw her sleeping during the night. He never saw Mr. Greaves between night and morning enter the ward.

REVIEWS.

An Introduction to Pathology and Morbid Anatomy. By T. Henry Green, M.D. Lond., M.R.C.P., Lecturer on Pathology and Morbid Anatomy at Charing-cross Hospital Medical School, and Senior Assistant-Physician to Charing-cross Hospital. Pp. 304. London: H. Renshaw.

The more one reflects, the more one is surprised that it was only the other day pathology was made compulsory in our system of education. One would have supposed that the study of the processes of disease and their results would have at all times formed one of the subjects of study; and yet in too many instances the lecturer on pathology had to lay his facts before the scantiest of audiences; and too often in the post-mortem room the pathologist's consisted of the dissecting-room porter. Recently, however, pathology has made giant strides, not only as regards the increase of our knowledge, but also in popularity, insomuch that certain others of the departments of Medicine (notably therapeutics) are in danger of being left in the hands of those least able to take care of them; and yet, with this increased and increasing popularity, the study of the subject was rendered by no means easy, owing to the want of any text-book abreast with the knowledge of the age. It is true valuable monographs existed, and we had much admirable material in the *Transactions* of the

Pathological Society; but to the student these things were like *caviare*, and to refer them to any one of these was, indeed, to place strong meat before babes. One of the most popular text-books of its time—Dr. Wilks's work on Pathology—has long been out of print, and now sells for twice its original cost; Jones and Sieveking's Pathology was the pathology of the past; Chance's translation of Virchow is long since out of print. In short, did a student ask what book to study, the teacher could but tell him to attend regularly in the post-mortem room, and to listen carefully to his lectures; as for home study, that was impossible. Now, both words of advice were good. The post-mortem room is, undoubtedly, the place to teach and the place to acquire a knowledge of morbid anatomy. But facts are not everything: a man requires something whereby to string them together, so as to render them useful in practice—in this every doctrine comes in. It is not possible for the student to remember everything told him in the lecture theatre; to complement that, home reading is required, and in pathology no English text-book was to be had. Could the student read French we might refer him to Cornil and Ranvier for Morbid Histology; if he was also a German scholar we might tell him to take Rindfleisch or Förster, or Klebs or Lücke—all good books in their way, but sealed to the many.

In common with other teachers, Dr. Green felt the want, and set about remedying it. He had that best of all guides as to what was required—experience; thus he has carefully endeavoured to supply what is necessary for the student, and no more. The book Dr. Green has produced aims at being essentially a student's book, and its purpose is admirably fulfilled. After a careful study of its contents, we can find nothing to which we can object; not very much, its end being kept in view, we should care to add. It is well done; everything being thoroughly and conscientiously worked up to the latest date. But though a student's book, we commend it to men of larger growth. Practitioners whose time is valuable, and whose leisure is of the scantiest, will here find in the smallest compass a clear exposition of modern pathologic doctrine, which they will do well to study, if only to see how much things have changed since their student-days, and are still changing. Let us cite, as most important to them, the various kinds of degenerations, the doctrines of tuberculosis, the grouping of the new growths, the process of inflammation as manifested in different structures, the effects of embolism, etc. All these are here well and carefully discussed; the various steps in the different processes being clearly explained. One virtue of the book, so far as the student is concerned, is its dogmatic character. By assuming the tone of a master, it is possible to teach the student something; the knowledge that this man says one thing, and that man another, is the most useless of acquirements. Nevertheless, that it may be in a man's power to follow up the study of any particular subject, references to the prime authorities are desirable, and in a certain fashion Dr. Green has seen to this by giving a list of works in an appendix: to these the advanced student may refer, but the original worker must look to monographs, magazine papers, and what not, if he desires to know what has been done before him; but, as already stated, this book is not intended for such.

Were we to select the portions of the book which strike us as being of most interest we would point, among others, to that in which new growths are treated, and to the careful way in which malignancy is considered apart from structure. Cancer, it is pointed out, is a specific form of new growth, very malignant no doubt, but nearly approached in this respect by certain of the sarcomata. Then, again, inflammation is very well done; the different forms of inflammation of the lung have received the attention they deserved, and are very clearly described. Tubercle and embolism will also well repay perusal; but we do not know that we can do better than refer the reader to the book itself—it will well repay him. To the student of Medicine we say more: let him, for a time at least, make it his constant companion.

It is officially announced that cholera has entirely ceased at Hamburg.

The returns of the Paris lunatic asylums, just issued, show a diminution in the amount of madness, and suicides have, since the first investment of Paris, become unusually rare. On the other hand, a sort of idiotic stupor prevails to a considerable extent, especially among women, owing, it is alleged, to the successive shocks given during and after the siege to the nervous system.

GENERAL CORRESPONDENCE.

VACCINATION IN MAYFAIR.

Letter from Dr. Protheroe Smith.

[To the Editor of the Medical Times and Gazette.]

Sir,—Believing the following facts to be of sufficient interest for publication, I have been induced to send them to you. The population of the Mayfair and Hanover-square districts, as taken at the last Census, was 31,720 persons. Though probably several cases of small-pox occurring in these districts may have been removed out of them to Hospitals, yet still, the small amount of mortality from this disease registered for the half-year ending June, 1871 (two being the total number), speaks favourably for the quality of the vaccination by puncture for some years past. This has been recognised by the Privy Council in awarding to Mr. Jay, the public vaccinator, two grants—one in 1868, of £16, and another in July of this year, of £15 17s.

The following table shows the number of persons vaccinated by the public vaccinator during the last twelve months ending June 30, 1871:—

	Primary.	Secondary.	Total.
1870.—July 1 to September 30 .	45	4	49
October 1 to December 30 .	43	1	44
1871.—January 1 to March 31 .	173	824	997
April 1 to June 30 . .	57	113	170
Total	318	942	1260

I am, &c., Protheroe Smith.

2, Park-street, W., October 4.

THE EXTERNAL USE OF BICHLORIDE OF MERCURY.

Letter from Dr. Tilbury Fox.

[To the Editor of the Medical Times and Gazette.]

Sir,—I must protest, in answer to Dr. Dowse's letter, against the use of the word "lotion," as applied to the solution of bichloride of mercury which I sometimes use in ringworm. The remedy is classed with *vesicating* parasiticides in the formulary of my work. I have made a separate group of "*milder parasiticides* for ordinary use," with the very object of preventing anyone from using the stronger parasiticides without due caution or regarding them as lotions. I commend to the notice of your readers an article in the *Practitioner*—which, by the way, I did not write—on the general question of the use of mercurial applications in ringworm. I am, &c.,

43, Sackville-street, W. Tilbury Fox, M.D., F.R.C.P.

DOMESTIC SANITATION.

Letter from Mr. Charles Orton.

[To the Editor of the Medical Times and Gazette.]

Sir,—I believe it is an acknowledged fact that enteric fever may be caused in any residence by the escape of sewer gases through the water-closet. It is not here necessary to consider whether such gases have resulted from decomposing fever-matter or not. Now, however well trapped sewers may be, gases will escape more or less frequently. Would it not be advisable, then, to construct the closets so that the pipes might be flushed by disinfectants, and a layer of disinfectant fluid be left in the pan? The flushing with disinfectants might be dispensed with if another smaller cistern, or even bottle, holding concentrated disinfectant could be connected with the pan, and could be made use of easily—for to many people it is too much trouble to attend to sanitary matters.

And now that I have mentioned sanitary matters, allow me to have a kick at local boards of health. Removed as far as we are from Medical journalistic eyes (though not too far, if they only knew what good they would do if they came and looked around and then spoke up about such unimportant places), we suffer greatly in mind and body, though not, perhaps, in pocket. Here is a nice pleasant little town of 16,000 souls, where manure and the contents of the gutter cesspools are left on the high roads for days together. I may add that the ratepayers sanction the Local Board of Ill-health in their extravagance of having two scavengers for 16,000 inhabitants, many of them Irish.

Need I say that we are never free from preventible diseases.

A few comments from you would be thankfully received, and repeated by many besides.

I am, &c., CHARLES ORTON,
Hon. Medical Officer to the
North Staffordshire Infirmary.

Newcastle-under-Lyme, Staffordshire, Sept. 24.

OUR DISINFECTANTS.

LETTER FROM DR. A. FARR.

[To the Editor of the Medical Times and Gazette.]

SIR,—It is a deplorable fact that so few Medical men are in a position to give anything like a satisfactory answer to the question—"Which is the best disinfectant?" No sooner is a substance discovered supposed by some individual to possess extraordinary disinfectant or antiseptic properties, than it is launched forth to the public, and, like a quack medicine, "kill or cure," its sale becomes proportionate to the publicity which is given it. Now, is it not probable that we have been in error about our disinfectants; that we have voted a bane that which has been the antidote, or *vice versâ*; and that it remains to be proved whether or not He who locked up the poison, barium, in the earth, in the form of an insoluble salt, that all life on its surface—animal and vegetable—might not be swept away, has ordained that a substance so universally diffused as chlorine is the element which will be discovered in the end to be the best agent in preventing the spread of disease? But the *ipse dixit* of one man is not sufficient to settle a question so vitally important as this; and nothing short of a scientific inquiry directed by our Government is due both to the public and the Profession.

I am, &c.,
88, Waterloo-road. A. FARR.

THE TESTIMONIAL TO SIR JAMES PAGET.

[To the Editor of the Medical Times and Gazette.]

SIR,—The Profession will learn with unmixed satisfaction that it is in contemplation to present a testimonial to Sir James Paget on his elevation to the baronetcy. It is very honourable to St. Bartholomew's Hospital that this proposal should have emanated from thence; but, Sir, the scientific world recognises Sir James Paget as belonging to it and to the Profession at large, and I am persuaded that the Profession at large will gladly endorse this recognition if opportunity be conceded it to participate in the movement. The main question which naturally presents itself is—What form should such a testimonial most appropriately take? Passing over the familiar and well-worn expedients of a piece of plate or a portrait, as less worthy emblems of a feeling like this, would it not be more in unison with the character of the recipient, as well as more distinctly expressive of their appreciation of it by the givers, if a Paget Fund were established in connexion with the British Medical Benevolent Fund (of which Sir James Paget is already a trustee, and his sympathy with its purposes so thoroughly known), in order to found one or more annuities for ever, for the support of aged and destitute members of the Profession, or their widows, to be chosen from the most deserving and necessitous in the same careful manner as that in which the other annuitants supported by that institution are at present selected; or in any other way which Sir James might himself suggest?

Will you permit me, through your valuable aid, to submit this for general consideration; and whether it would not for all time enhance the honour we desire "to render to whom honour is so justly due," to identify with it a help in need to the less successful of our brethren in the race of life?

I am, &c., H. F. S.

OBITUARY.

CHARLES ALEXANDER HARRIES, M.R.C.S.

WE regret to record the death of Mr. Chas. A. Harries, of Bath. This gentleman was born February 19, 1808. He was engaged in the practice of his Profession upwards of forty years. An ardent lover of science, a man of genial and amiable disposition, ever ready with a cheering smile and kindly word, a zealous discharger of every private and public duty, he won the respect and affection of a very large circle of patients and friends. He was a Town Councillor for many years, and rendered valuable services to his fellow-citizens. So attached was he to his work that, although ailing for some time, he only ceased his labours a few months since, being compelled to resign his practice by the progress of cardiac disease, which terminated fatally on September 22, 1871.

NEW INVENTIONS.

COCKING'S PATENT POROPLASTIC SHEET FOR SPLINTS.

THIS new form of splint promises to become extensively useful. If not quite original, it certainly possesses advantages over all previous similar inventions. To use the language of the patentee, "It is elastic, light, porous, flexible, plastic, and economical; is made of all required strengths and sizes, and consists of a felted substance in sheets; is plastic when softened by heat, and becomes rigid when cold, and can be resoftened any number of times without injury; rapidly and easily manipulated, the most difficult splints requiring but a few minutes to complete; is very well adapted for metal attachments, and is thus a very valuable material for interrupted splints. There is no glue used in its composition, and the gums with which it is stiffened are quite harmless."

It is seldom we are able to endorse a patentee's account of his own invention, but in this particular instance we can do so without reservation. To Practitioners in the country and the colonies, "Cocking's Splint" will be of the utmost service. It has already been used with success by many of our leading Surgeons, and has been found to answer all that was either required or expected. Its very moderate price also commends its general use to Surgeons.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received their Certificates to practise, on Thursday, September 28, 1871:—

Elam, Shrofield, 40, Woburn-place, W.C.
Mountaine, John, Wise's Hill, Sunday's Well, Cork.

The following gentlemen also on the same day passed their first Professional examination:—

Bennett, William Edward, Guy's Hospital.
Evans, John, London Hospital.
Nix, Edward James, Charing-cross Hospital.

At the Preliminary Examination in Arts, held at the Hall of the Society on September 29 and 30, 159 candidates presented themselves, of whom 66 were rejected, and the following 93 passed and received Certificates of proficiency in general education—viz., in the first class in order of merit:—

First: E. J. Morshead. *Second:* H. P. E. Freund. *Third:* A. C. Routh. *Fourth:* A. S. Eccles, J. C. Hayward, F. Nicholls, and H. C. Taylor. *Eighth:* H. R. H. Bigg, F. S. Edwards, F. G. Hayes, P. Hookham, J. L. Jaquet, W. B. Johnson, R. D. Perry, and Thomas Tomlinson. *Sixteenth:* J. R. Blackie, L. Druitt, C. G. Emson, E. Ground, A. G. Lacy, Stephen M. Smith, and J. Wishaw.

In the second class, in alphabetical order:—

Anderson, L. M.	Davies, A. M.	Manwaring, W. H.
Ashe, P. W.	Downing, H. P.	Martyn, Ernest.
Baber, H.	Ferguson, D. W.	Moore, Joseph W.
Bartlett, Henry.	Foresythe, William.	Mugliston, T. C.
Bell, T. A.	Francis, E. G.	Pinnell, Richard.
Bialc, J. S.	Gray, Walter.	Polaud, J. H.
Bigg, George S. K.	Grigg, W. H.	Rigby, P. A.
Blair, Archibald.	Hambleton, G. W.	Risk, R. R. T.
Blake, H.	Harris, Howard.	Roberts, Alonzo.
Bouton, G. C.	Harding, A.	Roberts, John T.
Bonsall, G. R.	Hatch, W. R.	Robins, Harvey.
Bowen, A. L.	Hodgson, Alfred.	Rule, G. F. H.
Bowling, C. J. L.	Holmested, C. A.	Scholfield, W.
Brown, Francis W.	Humphry, Reginald.	Steele, Richard.
Brown, Thomas L.	Jones, Robert Dennett.	Stephenson, John J.
Burlton, A. H.	Jones, William.	Swaine, John G.
Burton, H. C.	King, N. T.	Symons, John.
Butler, G. W.	Knight, J. Tomlinson.	Thomas, John.
Campbell, W. F.	Lampray, J. J.	Tomlinson, Henry Thos.
Chadwick, G. R.	Lane, S. E. H.	Townsend, Charles P. G.
Chamberlain, E. T.	Lawson, John.	Wade, Ethelbert.
Crofts, H. B.	Lewes, Joseph.	Ward, Austin George.
Dacosta, Edmund.	MacLaughlin, E. H.	Wilson, Arthur Frank.
Daniell, H. E.	Malpas, D. D.	

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

KISBY, WILLIAM J., L.F.P.S., L.M., L.A.H.—Apothecary to the Gort Workhouse and Dispensary.

LOW, ROBERT BRUCE, M.D.—Medical Officer for the Messingham District of the Glanford Brigg Union.

Morison, Bentham P., M.R.C.S E., L.S.A., L.R.C.P., L.M. Edin.—House-Surgeon to the Hereford Infirmary, *vice* J. Bevan, F.R.C.S.E., resigned.

Roworth, Alfred Thomas, M.R.C.S., L.S.A.—Surgeon to the Grays District of the Orsett Union.

Strafford, Thos., M.R.C.S., M.R.C.P.—Resident Surgeon to the Worksop Dispensary, *vice* Edward J. Cooke, B.A., M.B., T.C.D., resigned.

Tibbetts, R. W., M.B., M.R.C.S., L.S.A.—Surgeon to the Bristol Police Force.

NAVAL APPOINTMENTS.

Admiralty.—In accordance with the provisions of Her Majesty's Order in Council of February 22, 1870, the undermentioned officers have been placed on the retired list of their rank from the dates mentioned against their names:—Staff Surgeons Charles T. S. Kenern, September 22; Andrew Murray, September 22; and Joseph Henderson, M.D., September 27.

BIRTHS.

Bennett.—On September 29, at The Grove, Lymm, Cheshire, the wife of Charles Fredk. Bennett, M.D., of a son, stillborn.

Bogg.—On September 28, the widow of Dr. E. Beverley Bogg, R.N., of a daughter.

Cornea.—On September 3, at Manor House, Poplar, the wife of F. M. Corner, Surgeon, of a daughter.

Creighton.—On September 25, at Charlotte-street, Hull, the wife of Robert Creighton, R.N., Surgeon H.M.S. *Invincible*, of a son.

Dickson.—On September 1, at Bhangulpore, the wife of Lindsay Dickson, M.D., Bengal Army, of a son.

Farrington.—On October 1, at The Moat, Penshurst, Kent, the wife of W. H. Farrington, M.D., of a son.

Mooar.—On October 2, at Brunswick-square, Brighton, the wife of William Withers Moore, M.D., of a daughter.

Sealey.—On August 1, at Nelson, New Zealand, the wife of W. B. Sealey, of a daughter.

Wood.—On September 28, at Wood-villa, Shirley-road, Southampton, the wife of Dr. Wood, of a son.

MARRIAGES.

Beavan—Markham.—On September 27, at the district church, Riverhead, James Beavan, F.R.C.S., of Hereford, to Elizabeth Ward Markham, of Brooklands, Riverhead, Sevenoaks, Kent, daughter of the late T. Markham, Esq.

Darley—Alley.—On September 27, in Coolock Church, county Dublin, Frederick Alexander Darley, Esq., Captain Bengal Staff Corps, eldest son of Benjamin Guinness Darley, M.D., Greenfield, Coolock, to Dorothea Elizabeth, second daughter of Thomas Alley, Esq., of Artaine House and New Park, county Dublin.

Dobree—Bridge.—On September 27, at the parish church, Wellington, Samuel Dobree, Esq., of The Priory, Wellington, Somerset, to Mary Mitford Tozer, daughter of S. Franklin Ridge, M.D., of Old Court, Wellington.

Groom—Wood.—On September 24, at the parish church, Ore, Leonard Groom, Surgeon, to Rose Wood, of Hastings.

Harley—Williams.—On October 3, at the parish church, Saffron Waldon, Edward Harley, L.R.C.P.L., to Gladys Powys Williams.

Pittock—Bennett.—On September 21, at Brixton, George M. Pittock, M.B. Lond., of 23, Cecil-square, Margate, to Emma Jenkins Bennett, niece of Richard Jenkins, Esq., J.P. of Margate.

Pownall—Diamond.—On September 14, at the Cathedral, Quebec, Robert Pownall, Esq., of Montreal, to Mary Margaret, eldest surviving daughter of Dr. Diamond, F.S.A., of Twickenham House, Twickenham, Middlesex.

Skene—Anderson.—On August 2, at Menzies Hotel, Melbourne, Thomas Skene, Esq., of Bassett, eldest son of the Hon. W. Skene, M.L.C., of Skene, Hamilton, Victoria, to Margaret Scott, second daughter of the late Alex. Anderson, M.D., of Jedburgh, Scotland.

Vale—Dugdale.—On September 28, at St. Mark's, Witton, near Blackburn, the Rev. W. Theodoric Vale, vicar of All Saints', Blackburn, eldest son of James Theodorie Vale, M.D., of Green House, Balderstone, to Anne, youngest daughter of Thomas Dugdale, Esq., D.L., of Griffin Lodge, Blackburn, Lancashire.

DEATHS.

Butler, Cornelius, F.R.C.S., at Brentwood, from the effects of an accident, on September 30, aged 82.

Greig, Emily Lucy, the beloved wife of Charles Greig, F.R.C.S., of York-place, Clifton, and youngest daughter of the late Admiral Renwick, at Southerndown, Glamorganshire, almost suddenly, on September 30.

Kennedy, Mary Ann, the beloved wife of Angus Kennedy, Surgeon, Stratford Hall, Essex, at the residence of her son-in-law, on September 27.

Meeres, Marianne Emma, of Grove-place, Tottenham, widow of Thomas Meeres, Surgeon, at Ramsgate, of congestion of the lungs, on September 26, aged 66.

Panton, George, Surgeon, at Dorchester, on September 26, in his 56th year.

Reith, Margaret Skelton Murray, wife of Archibald Reith, M.D., at 39, Union-place, Aberdeen, on September 22.

Savory, John, M. and L.S.A., of 22, Sussex-place, Regent's-park, and formerly of 143, New Bond-street, at Ely Grange, Frant, on October 3, in the 72nd year of his age.

Young, A. K., C.M., M.D., etc., at Southend, on October 1, aged 69.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

Charing-cross Hospital.—Assistant-Physician. Must have a Degree from one of the Universities recognised by the General Medical Council, and must be F. or M.R.C.P.L. Residence within three miles of the Hospital is necessary. Applications and testimonials to Mr. H. Woolcott, Secretary, on or before October 24.

Cornwall County Lunatic Asylum.—Assistant Medical Officer. Must be duly qualified. Applications and testimonials to Mr. R. Adams, on or before October 14.

Devon County Lunatic Asylum.—Assistant Medical Officer. Applications and testimonials to Mr. T. E. Drake, Solicitor, on or before October 26.

Dudley Guest Hospital.—Resident Medical Officer. Must have both Medical and Surgical qualifications, and be registered. Applications and testimonials to the Rev. G. Y. Osborne, St. Edmund's Vicarage, Dudley, on or before October 14.

Infirmary for Consumption and Diseases of the Chest.—Visiting Physician. Must be M.R.C.P.L. Applications and testimonials to Francis Baily, Secretary, 26, Margaret-street, Cavendish-square, W.

Liverpool Northern Hospital.—House-Surgeon. Must possess both Medical and Surgical qualifications. Applications and testimonials to Mr. J. Unsworth, on or before October 16. Election on the 20th.

Marlborough Union.—Medical Officer for the Second District. Candidates must possess the qualifications prescribed by the Regulations of the Local Government Board. Applications and testimonials to Mr. E. B. Merriman, on or before October 16. Election on the 18th.

Pocklington Union.—Medical Officer for the Pocklington No. 2 District. Candidates must be duly qualified and registered. Applications and testimonials to Mr. W. Silburn, on or before October 20. Election on thd 21st.

Royal Surrey County Hospital.—House-Surgeon. Must be duly qualified in Medicine and Surgery. Applications and testimonials to the Assistant-Secretary, Guildford, on or before November 6.

Tiverton Union.—Medical Officer for the parishes of Silverton and Bickleigh. Candidates must be duly qualified in accordance with the Regulations of the Local Government Board. Applications and testimonials to Mr. C. M. Hole, on or before October 16. Election on the 17th.

York County Hospital.—House-Surgeon. Must be duly qualified. Applications and testimonials to Mr. R. Holtby, on or before October 20.

Warminster Union.—Medical Officers for the Warminster District and Union Workhouse, and for the Corsley District. Candidates must possess the qualifications prescribed by the Local Government Board. Applications and testimonials to Mr. J. Merrick, Clerk to the Guardians, Warminster, on or before October 16. Election the same day.

Warrington, Borough of.—Medical Officer of Health. Must be duly qualified, and be registered under the Medical Act of 1858. Applications and testimonials to Mr. G. T. Moore, Town Clerk, on or before October 7.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1861.

RESIGNATIONS.

Bristol Incorporation.—Mr. C. H. Dowson has resigned the Second District; salary £100 per annum.

Dorchester Union.—The First District is vacant; area 1411; population 3760; salary £31 4s. per annum; also the Workhouse; salary £30 per annum.

Pocklington Union.—Mr. Danson has resigned the Second Pocklington District; area 25,555; population 2501; salary £20 per annum.

Weymouth Union.—Mr. F. C. G. Griffin has resigned the Melcombe Regis District; area 1548; population 6498; salary £15 per annum.

APPOINTMENTS.

Bridgwater Union.—John F. V. Bent, M.B., M.D., C.M. Edin., to the Broomfield District.

Stow Union.—John Wm. Harper, M.R.C.S. Eng., L.S.A., to the Fifth District.

Wokefield Union.—Wm. James Lorraine, M.R.C.S. Eng., L.R.C.P. Edin., to the Sandal Magna, Walton, and Chevet Districts; Benjamin Kemp, M.R.C.S. Eng., L.S.A., to the East Ardsley District.

Association of Certifying Medical Officers of Great Britain and Ireland.—The Fourth Annual General Meeting will be held at the Adelphi Hotel, Liverpool, on Friday, October 20, at 2 p.m. The members will afterwards dine together. Gentlemen intending to be present at the dinner are requested to notify the same to the Hon. Secretary, Mr. Stansfeld, Redland, Bristol, on or before Tuesday, October 17.

Sir Alexander Armstrong, K.C.B., has been appointed a member of the Senate of the Army Medical School at the Royal Victoria Hospital at Netley.

Dr. Henry S. Wilson, formerly Demonstrator under Professor Goodsir, at Edinburgh, has been appointed Demonstrator of Anatomy in the University of Cambridge.

City of London Truss Society, 35, Finsbury-square.—The number of patients relieved during the month of September was 699, to whom 700 instruments were supplied.

Dr. Ellis has been exonerated by the St. Paneras Guardians from a charge of neglect brought against him by a man named Sturgeon, who has been in the syphilitic ward of the Workhouse Infirmary.

Dr. Puckle, the Medical Officer for Lambeth, has resigned. We regret to say that the immediate cause of his resignation is ill-health. The vestry, on receiving the resignation, recorded their appreciation of the past services of Dr. Puckle, and expressed their regret as to the cause of his retirement.

We regret to hear that Dr. Miller, Deputy Inspector-General of Hospitals in Scinde, has met with a severe accident through his horse taking fright.

There were 831 deaths in Paris last week. Forty of these were from bronchitis, 35 from pneumonia, 61 from diarrhœa, and 35 from typhoid fever.

Small-pox has been very prevalent on the Gold Coast, chiefly at Cape Coast Castle. The Executive were taking every sanitary precaution to stop the spread of the disease, and by the last advices it was thought to be on the decrease.

The local authorities of Peterhead, Scotland, have decided to erect a public Hospital for the town.

The annual meeting of the Royal Albert Hospital for Idiots was held at Bradford on Friday last. The gathering was numerous and influential. The report was most satisfactory; and the noble institution is progressing prosperously.

The open Scholarship in Natural Science, of the value of £40 per annum for three years, recently established at St. Mary's Medical School, has been awarded to Mr. E. J. Edwards, and the Exhibition of £20 to Mr. Giles. Both these gentlemen are students of the University of London. The Scholarship and Exhibition are open to public competition, and are awarded every year.

University of Cambridge.—Anatomy and Physiology.—Professor Humphry gives notice of lectures and practical teaching as follows:—Lectures on Anatomy and Physiology in the new Museums, on Tuesdays, Thursdays, and Saturdays, at 1 p.m., commencing on Saturday, October 21. Lectures on Practical Anatomy on Mondays, Wednesdays, and Fridays, at 6 p.m., commencing on Monday, October 16. These, together with the Lectures on Anatomy and Physiology, constitute the course for M.B. and M.C., and for the Royal College of Surgeons. Microscopical Demonstrations on alternate Tuesdays, at 6 p.m., commencing on Tuesday, October 31. Practical Histology on Saturdays, at 11.30 a.m., commencing October 28. This, in conjunction with the Practical Physiology by Dr. Michael Foster, constitutes a course of Practical Physiology. Superintendence of dissections daily. Instruction on practical anatomy will be continued in the Christmas vacation.

The Faculty of Physicians and Surgeons of Glasgow.—At a meeting of this Corporation, held on the 2nd inst., the following office-bearers were elected for the ensuing year, viz.:—J. G. Fleming, M.D., President; George Buchanan, M.D., Visitor; John Coats, M.D., Treasurer; J. D. Maclaren, M.D., Honorary Librarian; James Dunlop, M.D., Vaccinator. *Councillors:* The President, *ex-officio;* the Visitor, *ex-officio;* William Weir, M.D., in terms of cap. ii., sec. 6, of Regulations; James Stewart, M.D.; Robert Scott Orr, M.D.; H. R. Howatt, M.D.; James Steven, M.D. *Board of Examiners:* Andrew Fergus, M.D., Chemistry; George Buchanan, M.D., Anatomy and Physiology; Robert Scott Orr, M.D., Medicine and Materia Medica; Wm. Leishman, M.D., Midwifery and Medical Jurisprudence; William Lyon, M.D., Surgery and Surgical Anatomy; Eben. Watson, M.D., Anatomy and Physiology; James Morton, M.D., Surgery and Surgical Anatomy; Robert Perry, M.D., Chemistry; P. A. Simpson, M.D., Midwifery and Medical Jurisprudence; Alexander Lindsay, M.D., Medicine and Materia Medica. *Clinical Examiners in Medicine:* The Physicians of the Royal Infirmary. *Clinical Examiners in Surgery:* The Surgeons of the Royal Infirmary. *Examiners in Arts:* John Coats, M.D.; James Steven, M.D. *Representative to the General Council of Medical Education and Registration of the United Kingdom:* John G. Fleming, M.D. *Inspectors of Drugs:* William Eadie, M.D.; James Morton, M.D. *Clerks:* Lawrence Hill, LL.D., and William Henry Hill. *Librarian and Secretary:* Alexander Duncan, B.A. *Officer:* John M'Farlane.

Neglect of Vaccination.—On Tuesday an inquest was held at the College Arms, Camden Town, on the body of Joseph Mackey, aged 7 months, son of a feather cleaner, living at 100, Drummond-street, St. Pancras. It appeared the birth of deceased was registered in the usual way, but, owing to his suffering from hooping-cough, his parents did not have him vaccinated. He caught small-pox, and expired from its effects on the 30th ult. Mr. Frederick T. Coates, a Medical Practitioner, said he was called in to deceased on the 25th ult., and found him suffering from small-pox, and he expired from the disease. If deceased had been taken to him, he should have vaccinated him, notwithstanding the hooping-cough. There was no house-to-house visitation at St. Pancras. There were a number of children unvaccinated in the house in which deceased expired. The Coroner said the child had been registered, and the parish officials ought to look after the vaccination. It was disgraceful, in a large parish like St. Pancras, that these matters should occur. Verdict—"Death from small-pox, accelerated by neglect of vaccination."

Longevity in England.—There are recorded, in the return recently issued for the year 1869, the deaths of twenty-six males and fifty-three females registered as 100 years old or upwards when they died. Of the males, thirteen were aged 100, five 101, four 102, two 103, one 105, and one 106. Of the females, twenty-three were aged 100, thirteen 101, eight 102, two 103, five 104, one 105, and one 107. Twelve of these very aged persons died in London.

Composition and Quality of the Metropolitan Waters in September, 1871.—The following are Dr. Letheby's returns to the Association of Medical Officers of Health:—

Names of Water Companies.	Total Solid Matter per Gallon.	Oxygen required by Organic Matter, &c.	Nitrogen.		Hardness.	
			As Nitrates &c.	As Ammonia.	Before Boiling.	After Boiling.
Thames Water Companies.	Grains.	Grains.	Grains.	Grains.	Degs.	Degs.
Grand Junction	16·57	0·127	0·125	0·002	13·2	3·3
West Middlesex	16·53	0·030	0·112	0·000	13·3	3·3
Southwark & Vauxhall	16·27	0·077	0·111	0·002	13·0	3·3
Chelsea	16·80	0·081	0·125	0·002	13·4	3·3
Lambeth	17·27	0·077	0·110	0·002	13·8	3·4
Other Companies.						
Kent	27·23	0·010	0·196	0·000	20·0	5·8
New River	16·43	0·021	0·126	0·000	13·5	3·0
East London	15·27	0·051	0·135	0·000	12·1	3·5

Note.—The amount of oxygen required to oxidise the organic matter, nitrites, etc., is determined by a standard solution of permanganate of potash acting for three hours; and in the case of the metropolitan waters the quantity of organic matter is about eight times the amount of oxygen required by it.

The water was found to be clear and nearly colourless in all cases but the following, when it was more or less turbid—viz., in the case of the water of the Chelsea and the Grand Junction Companies.

The average quantity of water supplied daily to the metropolis during the preceding month was, according to the returns of the Water Companies to the Association of Medical Officers of Health, 116,327,971 gallons; and the number of houses supplied was 489,544. This is at the rate of 35·6 gals. per head of the population daily.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

*** Abstracts of the following Introductory Addresses are in type and will appear next week:—St. Mary's Hospital, by Dr. Alfred Meadows; Westminster Hospital, by Dr. W. R. Basham; Leeds School of Medicine, by Dr. Clifford Allbutt; Liverpool Royal Infirmary, by Mr. W. Carter; Queen's College, Birmingham, by Dr. Russell; University of Durham, by Dr. G. H. Philipson; Sheffield School of Medicine, by Mr. A. H. Allen, F.C.S.

Dr. Weber, Yokomairiro.—Your letter and enclosure have arrived.

L.R.C.S.I.—Cold baths and perchloride of iron.

Mr. R. Bowen, Bermuda.—Your letter, containing an enclosure, has come safely to hand.

F.R.C.S.—There are several blunders in the attempted analysis of the Calendar of the Royal College of Surgeons published last week in a Medical contemporary. Instead of a balance at the bankers' of £7 11s. 10d., as there stated, that sum represents the amount of expenditure over receipts. The absolute balance at the bankers' appears to be £1878 4s. 2d.

Plympton.—After a careful perusal of the case, we can come to no other conclusion than that Mr. Miles is entirely exonerated from all blame. Now, here are the facts:—A case of small-pox in the person of a young man, who had come down from London to visit his mother, occurred in the village of Plympton. The next day Mr. Miles saw him, and, after finding it impossible to place the patient in a position to be totally isolated, did, with the approval of a magistrate, at the request of the relieving officer, and with the consent of the patient and his mother, remove him to what are called the "infectious wards" of Plympton Workhouse. It now turns out that these wards are badly situated, badly built, and quite unsuited for isolating cases of infectious disease. The man died, and as many as eight persons in the house contracted the disease. It is a matter of complaint in some quarters that Mr. Miles did not acquaint Mr. Ellerly, the Union Surgeon, with the admission of a small-pox patient into the Workhouse; but Mr. Ellerly was informed of the circumstance within a very few hours. Mr. Ellerly asserts that the infectious wards were unfit for the purpose for which they were constructed, and that he would not have admitted the case into them on that account. The matter has now terminated, and we trust that the ill-feeling which appears to have been engendered between the two Surgeons and other persons will at once subside. No blame is attachable anywhere; some little error may have been committed, but the real offenders are the infectious wards, which assume to be what they are not.

Opium-smoking.—The *San Francisco Chronicle* gives the following account of opium-smoking by the Chinese:—

"We watched the operation of preparing and smoking a pipe of opium. The smoker has brought to him a tray on which is a light, a pipe, a small piece of wire, and a jar of pure opium; the wire is dipped into the opium, then applied to the candle and cooked until the perfume arising therefrom suits the smoker's ideas. It is then carefully kneaded on the surface of the pipe, the top of the bowl being covered, with the exception of a small hole in the centre; and when the correct consistency has been gained by a delicate manipulation with the wire, the opium is worked up into a ball about the size of a small pea, and inserted through the lid of the pipe. The smoker then reclines, and, placing the bowl of the pipe against the candle, draws away at the stem for a few seconds—the pipe is empty, and the performance repeated until the smoker becomes stupefied and falls back in a doze, to revel in the sensations arising from the narcotic. Its effects are described as being of a most exhilarating kind, and if only inhaled in small quantities it animates the spirits and gives energy to the intellectual powers, and is then followed by a state of quiet, pleasant languor until sleep succeeds; but it is only by increasing the dose that these effects are reproduced. The soporific effects are then of longer duration, and the symptoms of debility are greater, gradually but surely leading to softening of the brain."

COMMUNICATIONS have been received from—

Mr. F. S. Newbold; Dr. Ridge; Mr. Abbott; Mr. C. Oaton; Mr. B. Wilson; Dr. Fayrer; Dr. Allbutt; Dr. Oldham; Mr. B. P. Moaison; Dr. Philipson; Dr. Cheadle; Mr. J. G. Morris; Dr. Letheby; Mr. J. S. Bigos; Dr. Newman; An Oxford Man; Dr. Basham; Dr. Little; Dr. John Murray; Dr. J. Ward Cousins; Mr. Metcalfe Johnson; Mr. F. Taylor; Mr. J. Chatto; Dr. James Russell; Mr. Reeves; Dr. Stretch Dowse; Dr. F. R. Hogg; L.R.C.S.I.; Mr. Stansfeld; Mr. G. Miles; Mr. Lawson Tait; Mr. T. Strafford; Dr. Tilbury Fox; Dr. Green; Professor Rutherford; Mr. Maunder; Dr. Phillips; Dr. Cole; Mr. G. Lawson; Dr. Day; Mr. Le Gros Clark; Dr. Green.

BOOKS RECEIVED—

Report of the Building Committee of the Prudhoe Convalescent Hospital—The Registrar-General's Thirty-second Annual Report of Births, Deaths, and Marriages in England—Allingham on Diseases of the Rectum—The Cathedrals and the Lancers' Bridge—Report of the Joint Committee on State Medicine of the British Medical and Social Science Associations—Knapp and Moss's Archives of Ophthalmology and Otology—Report of the Herefordshire Medical Association—Donkin on Diabetes and Bright's Disease—Clinical Society's Transactions, vol. iv.

PERIODICALS AND NEWSPAPERS RECEIVED—

British and Foreign Medico-Chirurgical Review, October—Quarterly Journal of Microscopical Science, October—Cope's Tobacco Plant—Nature—Pharmaceutical Journal—Gazette Hebdomadaire—The Nelson Examiner—Monthly Microscopical Journal, October—Journal of Mental Science, October—Hardwicke's Science Gossip, October—Birmingham Daily Post—Westminster Review, October—Philadelphia Medical Times—The Western Morning News—The Bradford Observer—Food Journal, October—Chemical Review, October—Popular Science Review, October—Quarterly Journal of Science, October—Medical Press and Circular.

APPOINTMENTS FOR THE WEEK.

October 7. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

9. Monday.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

10. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

11. Wednesday.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Hunterian Society (Council Meeting, 7½ p.m.), 8 p.m. Introductory Address by the President, and a Paper by Dr. Daldy.

12. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; West London, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

13. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

Clinical Society, 8½ p.m. Dr. Christian Baümler, "On Cases of Partial and General Idiopathic Pericarditis." Dr. Anstie, "Conclusion of a Case of Syphilitic Neuralgia, which was reported last Session," and "On a Case of Anæsthetic Lepra." Mr. Nunn, "On a Case of Scrofuloderma treated by Woodhall Water." Mr. George Lawson, "On the Treatment of a Case of large Melanotic Tumour of the Eye extending into the Orbit."

Quekett Microscopical Club, 7 p.m. Extra Meeting, for Conversation and Exhibition of Objects only.

VITAL STATISTICS OF LONDON.

Week ending Saturday, September 30, 1871.

BIRTHS.

Births of Boys, 976; Girls, 913; Total, 1889.
Average of 10 corresponding weeks, 1861-70, 2031·8.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	686	704	1390
Average of the ten years 1861-70	638·6	620·4	1259·0
Average corrected to increased population	...	...	1385
Deaths of people aged 90 and upwards.	...	...	4

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561189	...	3	5	...	6	...	7	2	17
North ...	751638	24	...	10	3	4	3	6	...	30
Central ...	333887	2	3	3	1	2	1	2	1	22
East	638928	8	3	7	...	8	2	4	1	36
South	966132	17	9	11	2	10	2	4	4	48
Total	3251804	51	18	36	6	30	8	23	8	153

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·371 in.
Mean temperature	50·2°
Highest point of thermometer	65·6°
Lowest point of thermometer	41·9°
Mean dew-point temperature	46·6°
General direction of wind	Variable.
Whole amount of rain in the week	3·34 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, September 30, 1871, in the following large Towns:—

Borongha, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1871.*	Persons to an Acre. (1871.)	Births Registered during the week ending Sept. 30.	Deaths Registered during the week ending Sept. 30.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3263872	41·8	1889	1390	65·6	41·9	50·2	10·11	3·34	8·48
Portsmouth ...	113450	11·9	60	49	65·2	35·2	50·9	10·50	2·45	6·22
Norwich	80533	10·8	40	40	59·8	40·2	49·4	9·66	3·18	8·08
Bristol	183298	39·1	102	77	...	...	...	...	...	...
Wolverhampton ...	68476	20·2	41	44	56·7	40·5	47·2	8·44	2·95	7·49
Birmingham ...	344980	44·1	236	151	57·6	40·0	47·8	8·78	3·86	9·80
Leicester	95882	30·0	47	63	58·5	38·2	47·4	8·55	3·38	8·59
Nottingham ...	86929	43·6	33	52	62·6	37·9	48·0	8·89	3·20	8·13
Liverpool	494649	96·8	362	286	55·9	40·5	47·3	8·50	2·20	5·59
Manchester	356099	79·4	265	223	61·0	35·0	47·3	8·50	2·02	5·13
Salford	125422	34·3	83	78	56·5	34·0	45·4	7·44	2·50	6·35
Bradford	146987	22·3	182	86	...	...	...	...	...	...
Leeds	260657	12·1	269	170	60·0	40·0	48·4	9·11	3·53	8·97
Sheffield	241507	10·6	208	144	57·0	36·0	46·2	7·89	3·69	9·37
Hull	122266	34·3	67	74	56·0	37·0	46·0	7·78	2·47	6·27
Sunderland ...	98797	29·9	89	89	...	...	...	...	...	...
Newcastle-on-Tyne	128677	24·1	136	89	53·0	41·0	45·9	7·72	3·12	7·92
Edinburgh	201728	45·6	127	98	52·7	37·0	45·2	7·33	0·60	1·52
Glasgow	479227	94·7	348	261	54·6	33·6	45·4	7·44	0·30	0·76
Dublin (City, etc.)	310565	31·9	233	138	59·0	31·8	48·4	9·11	2·03	5·16
Total of 20 Towns in United Kingd'm	7204001	33·8	4817	3602	65·6	31·8	47·4	8·55	2·64	6·71

At the Royal Observatory, Greenwich, the mean reading of the barometer in the week was 29·37 in. The highest was 29·73 in. on Saturday evening, and the lowest 28·77 in. on Thursday morning.

* The figures in this column are the unrevised numbers enumerated in April last, raised to the middle of the year by adding 1-40th of the rate of increase which prevailed between 1861 and 1871. As the population of Dublin and its suburbs showed a decline between the Censuses of 1861 and 1871, the enumerated number in April last has been inserted above for that city, the population being assumed to be now stationary.

ABSTRACTS OF

THE INTRODUCTORY ADDRESSES DELIVERED AT THE OPENING OF THE MEDICAL SCHOOLS.

ST. MARY'S HOSPITAL.

THE Introductory Address was delivered by Dr. Alfred Meadows, of which the following is an abstract:—It is well for us all now and again to pause and ask ourselves the question, Whither do our scientific investigations tend? Do they help to confirm, or are they subversive of the cardinal points of Christian belief? If the former, then we may be sure that our method of working is right, our science true, and the knowledge gained to the world will live as long as truth endureth. But if the latter, we may be equally sure that what we think we have discovered is no discovery at all, and will prove to be but the baseless fabric of a dream.

We hear a good deal nowadays, and some people seem to take a special delight in talking about the conflict between science and religion. Now, I am not one of those who believe that true science is or can be in any way or degree opposed, either in theory or in fact, to what is called Revelation. I have too strong a faith in the latter, and too high a love of the former, ever to believe in such a possibility, or to entertain the shadow of a doubt as to their complete oneness in all essentials. It has always appeared to me a simple impossibility that true science and Revelation should ever contradict each other. Speculative science—or, perhaps I ought rather to say, speculative thought—may, and very possibly will, be frequently at variance with revealed truth. But true science, real scientific thought, and most of all, the demonstrative facts of science, never have done, and never will do, violence to the undoubted will of the Creator as exemplified in His revealed word. Reason herself revolts from such a thought. For what are we to understand by the terms Science and Revelation? It seems to me impossible to deny that, in regard to their relation to the Great Architect of the Universe, they are and must be absolutely identical. Science I take to be the discovery or demonstration of abstract truth in the laws which govern the natural world, and making deductions therefrom. But those laws must have had a lawgiver; there can be no such thing as self-made law; the very idea is an absurdity. Law, then, implies a lawgiver; and he who created the law must also have created that which the law governs; whether it be in the organic or inorganic world, in the animal or vegetable kingdom. In short, the whole realm of what we call Nature, governed as it is by law, witnesses to the Lawgiver as the author of its dynamical agency, while, at the same time, the material Universe, as we now see it, is a necessary consequence of the operation of law.

On the other hand, revelation is nothing more than the proclamation, through certain specified channels, of the laws or the machinery, if I may say so without irreverence, by which God wills to govern the moral world, and to bestow upon man a higher existence than his present life. In fact, if I might venture upon a parallel, I should say that Revelation is the scientific authority for the moral law, just as the recorded observations of facts in Nature become the scientific authority for natural law. Both authorities are of equal value as bases of truth and as expressions of the Divine will; and just as ignorance of natural science engenders among the proud and foolish contempt for scientific things, so ignorance of theological science is apt to engender, with the intellectually proud, indifference to sacred things.

In trying, then, to discover the secrets of Nature, to unfold her laws, and to lay bare her operations, we are all the while endeavouring, though we know it not, to extract as it were more and more of the Mind of the Creator as it lies hid in the works of His Hands. But what, I ask, is this but an attempt to complete another Revelation? And can we suppose that He, who is the author of the written Revelation of His Will, will contradict Himself in that other Revelation which man is permitted to read from the Book of Nature? If this contradiction were possible, then God would be proved to be a Being absolutely less trustworthy than many of His creatures. Such a thought is sufficient at once to negative the assumption, and therefore, I repeat, the idea of any opposition between true science and Revelation—in other words, between the observed Will of God in Nature and His recorded Will in Grace—bears on the face of it its own refutation. Conscious of this fact, the man of science works on patiently and fearlessly, with full confidence that any discovery he makes is in reality an addition to a new Revelation, which is quite as much of God as is Holy Scripture itself. Such a thought should make us very jealous for the truth of science, very careful and painstaking in our observations, temperate in our discussions of disputed points, and, above all, guarded in our speculations; lest, in advocating what is not true, we not only do our best to perpetuate what is false, but we, in fact, slander the Lawgiver, just as much as he does who misrepresents the thoughts, words, or actions of his fellow-men.

I ought, perhaps, to make some apology, or to offer some explanation, for occupying so much of your time with what may appear to you to be a purely theological argument. But no one who is an attentive observer of the general current of thought in these days can fail to see that, while this is an age characterised especially by great enthusiasm in science and in religion, there are not wanting indications of an attempt to bring these two branches of knowledge into opposition. It seems to me, therefore, that it is the duty of those who are any way connected with the teaching of science to insist occasionally, when opportunity offers, upon the close relation which exists between the two. Their union makes thought perfect; separate them, and you divorce science from what can alone add happiness to knowledge.

The subjects to which I wish now to direct your attention afford a remarkable illustration of the way in which these two enthusiasms are very unnecessarily forced into collision. I mean the subject of the Origin and Nature of Life. How did life first come upon this earth? What is its exact nature? To neither of these questions probably can, or ever will, any precise and accurate answer be given. But the subject is none the less interesting on that account, and its consideration may teach us one or two lessons; while at the same time anything connected with biology must ever be of the highest importance to us, whose lives are spent in endeavouring to maintain life, and to remove all that tends to destroy it.

In regard to the origin of life, it is, I suppose, beyond question that the earliest known geological record of the existence of life on this earth is to be found in the Laurentian strata of rocks. These, which are the earliest of all the known rocks, belong to what is called the Præ-Cambrian Period; and in them, within the last few years, there has been found a small fossil the organic nature of which was at first questioned, but it is now, I believe, generally admitted that this little creature belonged to the class of Foraminifera, and it has been christened with the name *Eozoon Canadense*. This is undoubtedly the oldest known form of living creature on the earth. We may not, however, affirm dogmatically that, because the geology of that period affords no evidence as yet of life other than that I have mentioned, therefore none existed; such a statement belongs to what I shall call speculative science, and he is a rash man who would speculate upon the condition of life on this earth at such a remote period.

Tracing life onwards, so far as geological records enable us to do, although there are at present a great many gaps in the series, yet I am not, I think, over-stating the case when I say that from the *Eozoon* onwards there exists in the successive strata of rocks evidence of a gradually ascending series of animals up to almost the highest vertebrata. Whether or not these are related to one another, and man to them all—whether or not the whole animal creation, from beginning to end, is to be regarded as one gigantic family, whose ancestral origin dates from the earliest geological period—is a problem which I certainly cannot pretend to solve. But even if it be so, and should it be demonstrable, as is so confidently predicted by some authorities, that man originally sprang from a shapeless mollusc, the thought need certainly not distress us over much, although it does not perhaps, at first sight, tend to raise our conception of self to be told that "man is descended from a hairy quadruped, furnished with a tail and pointed ears, probably arboreal in its habits and an inhabitant of the old world;" nor will our pride be encouraged by knowing that "this creature, if its whole structure had been examined by a naturalist, would have been classed amongst the quadrumana as surely as would the common and still more ancient progenitor of the old and new world monkeys," because, it is added by the writer I am quoting, "the quadrumana and all the higher mammals are probably derived from an ancient marsupial animal, and this through a long line of diversified forms, either from some reptile-like or some amphibian-like creature, and this again from some fish-like animal." But, in case this idea of the origin of our race is not enough to make us humble-minded, we are further told that "in the dim obscurity of

the past we can see that the early progenitor of all the vertebrata must have been an aquatic animal, provided with branchiæ, with the two sexes united in the same individual, and with the most important organs of the body (such as the brain and heart) imperfectly developed. This animal seems to have been more like the larvæ of our existing marine ascidians than any other known form."

Well, as I have said, if all this be true, and I must say it is a long way from being proved as yet, it does not appear to me in the least degree to affect man's present dignity, or his responsibilities to his conscience and his God. These are in no way touched by his mode of origin; for they arise out of his present condition, and are the natural outcome of that mighty, that stupendous act which was performed for him, and for him alone, when God became Incarnate. Speculative science cannot reverse the history of the Christian era, neither can it explain away facts which eyewitnesses have written for our learning. People tells us sometimes that Christianity must be a myth, because the Bible makes man to be such a noble act of creative power, whereas science, they say, shows him to have descended lineally from a marine ascidian. Having, therefore, such a degraded origin, they tell us, the whole theory upon which his eternal salvation is supposed to be based must be visionary; for why should his salvation be of such importance, and how, in the face of all that science tells us of his origin, are we to draw the line between the race of men who are to be saved and the brutes who are not. To all which I can only reply that Christianity is certainly not based upon any exalted estimate of man's origin; on the contrary, the same authority which tells me how he is to be saved actually makes him of meaner origin than do these speculators, for in that book I read, not certainly that man came from a marine ascidian, but that he was formed out of the dust of the ground. If, then, the argument be worth anything at all on the scriptural side, *à fortiori* is it on the scientific.

But, to return to my subject, assuming for the present that the first living creature on this earth was the *Eozoon Canadense*, the question we have to consider is, Whence did that life come? What, in fact, was the origin of life here? Professor Tyndall, in an essay "On the Scientific Use of the Imagination," says, "Life was present potentially in matter when in the nebulous form, and was unfolded from it by the way of natural development;" and he thinks "there are the strongest grounds for believing that during a certain period of its history the earth was not, nor was it fit to be, the theatre of life." He believes, moreover, that the probabilities are in favour of the earth being then in a nebulous, not a molten, condition; and that what he calls "creative energy" waited till the nebulous matter had condensed, and until other changes had taken place which fitted the earth to become the theatre of life, and then it—that is, "creative energy"—sent forth the fiat, "Let life be."

Now, that such an hypothesis as this should be gravely put forward in such terms by a man of Professor Tyndall's position, is, I think, a lamentable thing; and I would solemnly warn you who are just beginning your career of scientific study against being led away by such a flighty—for I cannot call it scientific—use of the imagination. What can be meant by the terms "natural development" and "creative energy" as employed in the passages I have quoted, except it be intentionally to exclude all idea of a Personal Creator in the first beginnings of life. Against such mischievous theorising I protest most earnestly; and I trust you will none of you be led away from the ancient landmarks of the Faith by reasoning such as this.

Sir William Thomson, in his recent address as President of the British Association, after remarking upon the condition of the earth when no life could exist upon it, and subsequently when, though fit for life, none was there, says, "we must not invoke an abnormal act of creative power" if we can find any other "probable solution consistent with the ordinary course of nature." But I would remark—first, that the word "abnormal" is here singularly out of place; for what right have we to suppose that the first act of the Creator's will in originating life on this earth was in any true sense an "abnormal act"? and, secondly, it appears to me the merest folly to attempt to explain the very beginning of a new order of things, such as must have been the first occurrence of life on the earth, by what is termed "the ordinary course of nature," for up to the time when life was first made manifest there was no "ordinary course of nature" in respect to it with which any hypothesis could be "consistent." But when, further, Sir William Thomson, unwilling apparently to recognise a distinct creative act, hazards the hypothesis that life may have been brought here by "countless seed-bearing meteoric stones moving about through space," and "carrying seed and living plants and animals," and that if no life previously existed on this earth, "one such stone" might "lead to its becoming covered with vegetation," I think, really, if scientific men can gravely put forward such "wild and visionary" notions as these—to use an expression which Sir William himself suggested—then the sooner we look elsewhere than to science for explanations of these phenomena the better will it be. It may be true, as he says, that such an hypothesis "is not unscientific"; all I can say is, if it be not, so much the worse for science.

But, you will no doubt ask, what view have I to propound in place of those which I reject? I reply, that I believe no strictly scientific answer can be given to the question at issue, because we have no sufficient data upon which to found an opinion. But it seems to me impossible to separate the idea of mystery from the phenomena under consideration, and therefore equally so to find any explanation by a study of the laws of nature. At the time in question, as I have said, there was no Nature such as we understand it, and no reference to present phenomena can avail to explain what occurred when the circumstances were in no degree parallel. Any such attempt must be futile, and, inasmuch as we have no other data by which to judge, the inquiry must be barren and consequently useless. Life came—that I know. Nature does not explain it—that I also know; and no amount of induction from facts which we can now observe will avail to account for phenomena which occurred when no such facts existed. Revelation and Reason both alike tell me that God willed it, and it was so; but neither tell me—how.

I am well aware that this does not satisfy the natural craving for a more perfect knowledge. But we are surrounded by mysteries which we cannot fathom, and this I believe is one of them. There is often, methinks, greater wisdom displayed in knowing what we do not know, and greater courage in candidly confessing it, than in assuming a knowledge which we have not, and mistaking audacity for courage. A lady once asked a distinguished member of the French Academy of Sciences, "What is the use of being an Academician if you can't tell what comets are made of?" To which the learned man replied, "Madam, that I may be able to say, I don't know." Such a reply testifies, I think, far more to the true man of science than he who fritters away his imagination over impossible problems.

But if the origin of life be a difficult question, scarcely less so is that of its nature. What do we understand by Life? Is it merely a condition of matter, or is it a force? If the latter, can it exist apart from matter? Is it independent of other forces? or is it correlated with them? These are all most difficult, and, in more senses than one, most vital questions. I have only time briefly to indicate the answers which facts seem to warrant, and I shall not allow myself to wander in the realms of fancy. In all ages there has been—there is still—great diversity of opinion on this matter; but, in these latter days, the opponents may be said to range themselves into two hostile camps: the one advocating what is called "the physical basis of life"; the other contending for a vital force, principle, or essence, differing from and altogether independent of the ordinary physical forces. The former assert that the force or forces which operate in organised bodies, whether vegetable or animal, are the same that exist in the inorganic world: that, in fact, life is correlative with the other forces of nature, and may be, for ought we know, nothing but a modification of heat or motion. In like manner, according to this view, heat, light, electricity, motion, and chemical action are to be regarded as vital forces when they operate in living bodies; but only as physical forces when met with elsewhere.

In opposition to this, it is contended by the vitalists that life is as much a separate force as motion, chemical action, electricity, or light; that its operations are entirely confined to organised bodies; that its existence cannot be conceived apart from these; and though its operation is never manifested without a corresponding physical change, or the evolution of some physical force, yet that it is altogether independent of these—not correlated with them, not subservient to, but in truth dominating them all, and acting sometimes in direct opposition to some of them, in a way in which no other physical force could act. Such, I believe, is a fair statement of the opposing views of life which are entertained by the leading authorities in the present day; and you will not fail to note the relation which these views bear to the question I have already discussed—namely, the origin of life; and also to another question which is just now exciting great attention—namely, the doctrine of spontaneous generation. It is obvious that, if life is merely a correlation of physical force, spontaneous generation, and

even the creation of organised beings by physical agencies is not conceivably beyond the power of man to achieve. Therefore, again, it follows that the acceptance of this view does away with the necessity for a creative act, and makes it possible that the original beginning of life was due to the operation of ordinary physical forces.

But, if this question is to be determined by observation and experiment, not by inference or imagination, then undoubtedly the Scotch verdict of "not proven" must be accepted as against the physical hypothesis; for as yet there is not on record, so far as I know, a single experiment or observation in support of it. On the other hand, the whole of the observed phenomena of life, nutrition, growth, reproduction, etc., are totally unlike anything which is seen in the inorganic world—nay, in many respects these processes take place in direct opposition to the laws which govern the other forces. For instance, gravitation has no necessary influence upon vital action; on the contrary, vital action is not unfrequently exerted in opposition to it. Growth is thought by some to have its counterpart in the formation of crystals, but it is surely not necessary that I should refute this statement; while nutrition has certainly no parallel in the inorganic world, neither is reproduction comparable to any known physical process. While, therefore, I am ready to allow that many of the changes which take place in organised bodies are of a purely physical character, and resemble the same changes as they occur in inorganic bodies, yet I cannot avoid the conclusion that the processes to which I have referred are brought about by the operation of a force or forces which are unknown in the inorganic world. Nor do I see why actions so striking, so manifest and peculiar, should not be ascribed to the operation of a special distinctive force—just as electricity, chemical action, heat, motion, etc., are regarded as separate forces because of their manifest and peculiar actions; for aught we know, there may be other forces yet to be discovered in the inorganic world which will differ as much from the present known physical forces as these do from one another.

Again, the argument in favour of a distinct and separate force is, I think, greatly strengthened by the consideration of what takes place in an organic body when, as we say, life has fled. Then at once the physical forces, such as chemical action, which have been kept in check, if not by the vital force, at least during vital action, exercise an undisputed sway over the now dead body; and the result is that its component parts gradually but surely lose all trace of structural character, and are resolved into their ultimate chemical constituents: *construction* is at an end; *destruction* is rampant, and no power suffices to avert the catastrophe.

But you will of course ask, If the doctrine of the absolute indestructibility of force be true, what becomes of the so-called vital force when a living thing dies? Unless this can be explained, you may argue, the fact that various physical forces continue to operate in or upon the now dead body, though in a different manner to what they did in the living body, is presumptive evidence in favour of the purely physical, and against the vital, theory of life. I admit the cogency of the argument, and I frankly avow that I am not able to meet the objection definitely. It seems to me, however, either that the vital force, assuming for the moment its existence, differs from the physical forces in this respect, or else I must claim for it that, though a distinct and separate force, it may nevertheless be in some way correlated with them when the conditions of its action no longer exist. The latter view does not seem to me at all to militate against its individuality; and if this concession satisfies the physicists, then all I can say is—they are welcome to it.

I often think, indeed, that the controversy is, after all, much more one of words than of ideas, for when a recent writer on the physical side describes "vital energy" as "a mode of motion," and yet declares that "it manifests itself in modes peculiar to itself, and different from any of the other modes of energy with which we are acquainted," and allows the use of the term vital force "to signify this special mode of manifestation," I do not see what more the vitalists can want—although I submit that the idea of this vital force being only "a mode of motion" is but another illustration of the so-called "scientific use of the imagination."

While, then, it seems to me that the idea of a distinct and separate force governing the organic world, plant and animal alike, and called by the name "vital force," accords best with the actually observed phenomena of life, and may therefore be accepted as, if not true, at least highly probable; yet, on the other hand, even if "the physical basis of life," as it is called, could be actually proved, I should certainly dissent altogether from the view which has recently been put forward by a very distinguished physiologist, to the effect that, as a consequence of such proof, "a complete and widespread revolution in religious belief" must necessarily occur. The writer to whom I am referring expresses his conviction that such a doctrine would be "scarcely reconcilable with the idea that man is made in the image of God," and therefore he adds "The idea of a God, of Divinity of every kind," must be abandoned, because "in such a scheme neither a superintending Providence, nor a personal God, nor Christianity, could have place"; for, asks this writer, "how could I believe that I was, nevertheless, designed and created by the power and wisdom of God?"

Now, I think that such language as this, coming, as it does, too, from a conscientious and thoughtful observer, is greatly to be deplored. I should, indeed, be sorry ever to make such a statement in regard to any scientific theory, no matter what its scope or tendency. The history of scientific beliefs is full of instructive lessons in this respect, and we cannot yet afford to dogmatise too narrowly on the connexion of science with Christianity in such a manner as to make the one dependent upon the other. This much, however, I do know, that on the principle which I have already enunciated, not even the clearest proof of the so-called physical basis of life, nor the actual demonstration of any single fact in science, however much it might seem to contradict my most cherished beliefs, would have the smallest influence in shaking my faith in the fundamental truths of Christianity. Regarded from a religious standpoint, it matters nothing to me whether the functions of my body or the growth of a tree are performed in obedience to what is called a physical or a vital law; neither am I concerned to know whether I sprang from a marine ascidian or from nothing, for I know that all laws and all matter, whether in the animal or the vegetable kingdom, the organic or the inorganic world, must have originated from the great Law-giver, and that He saw that they were good.

I have endeavoured then, gentlemen, very sketchily and imperfectly, I know, to give you some idea of the nature of that mysterious principle, force, power, property, or whatever you please to call it, which you are now called upon to study in its normal and abnormal manifestations in the human body, and which it will be your privilege and duty to guard, protect, and cherish, not only against the attacks of evil from without, but from those also within. We are too apt, I think, in the close study which we very properly give to the symptoms of disease, and the care with which we investigate its effects upon the tissues of the body, to lose sight of, or at least to undervalue, the fact that it is not so much material or organic as dynamical perfection which we should endeavour to maintain. Our whole course of study, dealing as it necessarily does with material objects, not only in physiology, but also in pathology and therapeutics, is apt to engender a too materialistic view of disease, and to obscure our view of the morbid processes by which disease is brought about, processes which are essentially deviations from the normal evolution of the life-force, whatever the nature of that force may be. It is so much easier to recognise the effects of what we call disease, the mind comprehends so much more readily what the eye sees and the hand can touch, that we are almost inevitably drawn to the recognition of the organic lesion as the alone cause of the patient's distress, and as the object towards which our remedial efforts should be directed. But it is certain that, if we inquire into the matter, we shall find in most cases evidence of what is called functional, or, as I would term it, dynamical derangement, long before the existence of organic lesion; and a little thought will suffice to convince us that functional derangement is but another term for the abnormal operation of life-force. For, as the force or dynamical agency which is inherent in the life-germ secures the normal growth and development of the body of which it is the germ, so deviations from that force necessarily lead to abnormal tissue change—in other words, to disease—either during growth and development, or in subsequent maturity.

Here, then, we see the importance of studying the laws which regulate the operation of that force, and their effects upon the bodily structure. By observing these actions during health, we may in time hope to gain some clearer conception of the causes of disease—those causes which at present are enveloped in so much obscurity that we can hardly be said really to know the *modus operandi* of any one of them. It is through the subtle workings of the life-force that minute tissue changes are produced; and it is here, therefore, that we must look for the earliest indications of the coming disease. When the grosser manifestations of organic lesion are apparent, it is then too late to trace out the ultimate cause of the

evil; and that which, if it could have been recognised and appreciated in its earliest stage, might, perhaps, have been combated successfully by a very simple remedy, now baffles and defeats all our efforts. Recent observations have shown how, by the thermometer, timely warnings of impending mischief are often given long before any other indications are apparent. It is in this direction that we must look for future advance in Medicine, and each one of you may, if you will, be of infinite service in this work. There is yet an abundant harvest for the honest, painstaking, humble labourer in the Medical vineyard. To this work I bid you go forth, full of bright hopes, and strong in your determination to overcome difficulties by patience, courage, and perseverance. But remember always that the one object of your lives should be to seek after and to maintain Truth. Be true to yourselves, and you will be true to your Professional calling, than which there is nothing higher or grander in this life. Truth should penetrate every act of your Professional as of your private life. It will make you careful in diagnosis and sound in therapeutics, because it will enable you to sift the apparent from the real, the false from the true. It will help you to weigh symptoms, to estimate them at their true value, and by knowing accurately—that is, truthfully—the inward conditions, of which symptoms are but the outward expression, you will be able, with full confidence, to apply the true remedy.

But success of this kind is only obtainable by the persistent practice of truth in every minute particular of your daily life. You cannot play fast and loose with truth and falsehood; for the one or the other will in the end be sure to prevail. And remember that "Falsehood is never so successful as when she baits her hook with Truth; and that no opinions so fatally mislead us as those that are not wholly wrong—just as no watches so effectually deceive the wearer as those that are sometimes right." Bear in mind, too, that a man who is always truthful cannot commit sin; for truth and purity go hand in hand; but falsehood is sin incarnate. As men of science, then, prove yourselves worthy of the name by steadfast devotion to truth; and in purity of life follow her example to whose blessed memory this School is named; so that when the time comes that you must change this life for another, you may bow your head in humble submission to Him who well knows how to recompense those who in the cause of truth have done what they could.

WESTMINSTER HOSPITAL.

The Introductory Address was delivered by Dr. William R. Basham, who commenced by observing that it might be to the advantage of those now entering the Profession to have placed before them the relative position assigned to Medicine and Surgery among the other arts and sciences. These words were so constantly employed almost as convertible terms that it was expedient to give such a definition as would enable the student to comprehend clearly the position held by Medicine among other branches of human inquiry. The word "science" comprehended investigations into the powers and properties of matter—inorganic as well as organic—the mutual action of forces and masses—the laws of matter, statical and dynamical. The term "art" was applied to everything which was the product of the mental or manual skill of the individual. Science, properly so-called, was either deductive or inductive. The first comprised the exact sciences—mathematics; the second (inductive) included the natural sciences, or physics;—and the object of these was a knowledge of the laws of the material world.

The natural sciences were then classified, and the necessity for a knowledge of them to the student and Practitioner of Medicine was insisted on. It was shown that all these branches of knowledge rested on correct and trained observation.

The arts were then enumerated. They severally included whatever was effected or produced by the mental conception or the manual skill, or both, of individual minds, art producing combinations or effects which could not happen or exist except through the conceptions of individual intelligence.

The highest efforts or products of art might be accomplished without any specific knowledge of natural science. But when art was aided by natural science the result was greater perfection. But if science was not absolutely necessary to the existence of art, how different was it with the practice of Medicine. There was not one of the natural sciences, some knowledge of which was not imperatively required in medicine.

The aim and scope of medicine as an art were shown to be the preservation of the body in health, and the freeing it from those evils and disorders which neglect of the laws which govern and minister to life most surely entailed. These could only be accomplished by a thorough knowledge of the nature and force of these laws. The first essential was a minute and searching knowledge of structure, both human and comparative; the second, a knowledge of the functions of the several organs. On a thorough knowledge of anatomy and physiology the whole fabric of Medicine rested.

It was shown that the vital forces were examples of the economy of the natural laws of the material world. Not only did these vital causes work in accordance with the physical laws, but they were evolved in strict obedience to, and dependence on, those laws. The functions of the heart, of the lungs, the action of the muscles, the structure of the eye and ear, were illustrations of the adaptability of structure and function to the laws of the natural world. The position of Medicine up to this point was that of a science strictly inductive.

The causes of disturbed functions were then glanced at: a definition of health was offered as a starting-point of comparison with the earliest manifestations of deranged or diseased structure or function. The scope of general pathology was thus mentioned as consisting of an inquiry into all the conditions, causes, symptoms, and results of disordered health, whether among individuals or among the mass. Allusion was made to epidemics. Medicine, as an art, had, from its earliest records, recognised the prevalence at times of particular types of disease. Tracing the origin, the mode of propagation, and the means of restraining epidemic forms of disease, was recognised as one of the most important duties of the Profession. Although little success had yet attended efforts to avert such epidemics as cholera or scarlet fever, yet over one fearful scourge the genius of Jenner had triumphed, and victory, complete and undoubted, had been the result of the contest between vaccination and small-pox. There could be no higher aim for any science than to stamp out the causes which favour the propagation of disease of whatever kind among the community. To investigate the causes of the unhealthiness of any given locality, to trace the development of disease to the co-operation of vice and ignorance, to propose means for the sanitary welfare of large and populous places, was the paramount duty of the Profession. But to accomplish this required a mind specially trained, one accustomed to exact and patient observation, skilled in all the collateral branches of Medicine—a chemist, a physiological one, conversant with the morbid agencies of air defective in purity, with its sources of contamination, with the influence of soil and drainage on animal health, with the qualities of water and its impurities; some knowledge of constructive art should also be added. The influence of particular kinds of labour on health, and the several diseases peculiar to special trades and occupations, also required attention. To perform these duties required a high-class Medical education, to which should be added sound judgment, a tact in dealing with the prejudice and ignorance of people, and a power to persuade by reasoning rather than of dictating by authority. After some remarks on the limited means of generalising on the action of remedies, and of establishing any definite law as to the certainty and exactitude of their action, moral probability, or (at most) moral certainty, was all that could be arrived at.

The lecturer proceeded to sum up the attributes of Medicine, both as a science and an art. It was a science in relation to the means and sources from whence it was derived, for it was built up of many, if not all, the other natural sciences. It was an art, however, in its exercise, and its value was proportioned to the scientific training, the tact, and judgment of the individual practising it. It was an art which, for extent and variety of knowledge possessed by its more distinguished members, was not exceeded, scarcely equalled, by any. Its utility was universal, for it was with advantage and benefit exercised in every region of the world, alike useful to all nations, peoples, or creeds. Medicine was the science of observation applied to the investigation of everything which related to the health of man, individually or socially. It was based on a thorough knowledge of the structure of man and of the chief families of the animal and vegetable world, to which must be added a knowledge of the laws pertaining to matter and force. The need for such wide and extended information had been fully recognised of late years by the altered course of study now recognised by the London University as necessary for the preliminary degree of Bachelor of Medicine. To be educated in such an art, brought to the possessor all the advantages and graces of an enlightened education. It trained the mind to understand the laws regulating the evolution of the germ out of which his organisation sprung. I

taught him the conditions governing nutrition, regulating development, or ministering to decay, the premature tendency to which it was the effort of the art to avert. As an art it dealt in no dogmas; it regarded as reliable and true only that which was susceptible of demonstration and proof. It sought no converts, for the essence of its teaching was, that its followers must be for ever students; for the words of Harvey were ardently accepted by all workers, "That all we know is infinitely less than all that remains still to be known." In this art there was no fealty sworn to authority, and only that which was ancient was loved which experience or science had proved to be true. The sciences on which this art rested could not be learnt from books alone. The fabric of nature and of the material world must be searched and studied, and each step the student made must be steadily from one demonstrated fact to another. The theories of incomplete observation were constantly tested by more numerous and reliable facts, and which scientific experiment eventually verified or ignored. Thus, gathering within herself the tributary streams of many branches of natural science, each contributing some truth or fact applicable to the interpretation of the laws of health and disease, Medicine might consistently take her place among the arts and sciences, and claim a prominent position among the most useful and beneficent of those scientific pursuits to which the intellect of man might be devoted.

QUEEN'S COLLEGE, BIRMINGHAM.

Dr. Russell opened his lecture with some passages from the chapter on the Cure of Melancholy, taken from Barton's Anatomy of that disease, on account of their presenting a more correct representation of the function of a Practitioner of Medicine than we often meet with in popular works, or than is exhibited in the thought of the present day. In place of imposing the entire responsibility, in the treatment of disease, upon the Medical adviser, the patient being supposed to have no part in the business, the author regards the patient as an active agent in effecting his own cure, reminding him that he has a duty to perform towards his Doctor as much as his Doctor has towards him; and that unless this reciprocal obligation be duly recognised, the relation which each bears to the other will be marred, and the benefit which such relation was designed to confer will fail of being attained. In developing the subject which these remarks suggest (the two-sided character of the Medical Profession—its relation to Medicine as a science, and its relation to the society in which the science is to be applied) the lecturer proceeded to comment on the effect produced in hastening or retarding the advance of Medical science by the state of general intelligence and education, noticing that, in narrating every step which has been made, the historian instinctively turns his eyes to the general condition of learning at the time; noticing, also, that in different parts of the world the character of Medical inquiry has taken its tone from the prevailing genius of the country in which it has been pursued. He briefly recounted the principal epochs in the history of Medicine, demonstrating as he proceeded that throughout its existence Medicine has been very much what the state of general culture has made it, rising with the extension of the scientific spirit, and falling when that spirit declined; and that this has been equally the case with Medical opinion, which has been in a large measure the reflection of the opinion of the age in which it is formed. In one respect, however, Medicine has stood in contrast with the surrounding philosophy—at least, in the early periods of its history; accepting Macaulay's characteristic of the ancient philosophy, that "it could not condescend to the humble office of ministering to the comfort of human beings," we may confidently oppose to this representation the aim consistently maintained by Medicine throughout her cheqnered career—that aim being the very one advanced by the same author as distinguising the Baconian philosophy,—"fruit"—"the multiplying of human enjoyment and the mitigating of human suffering."

Dr. Russell proceeded to notice, also, the influence of science upon Medicine, taking his illustration from the science of chemistry at different epochs of its history, and then passed on to another view of his subject—one always of importance, but never of so great importance as at the present day. He observed that the evils with which Medical science has had to deal have been in large measure due to human passion, or to ignorance of the laws imposed by Providence for the preservation of health. The statement applies to disease in all its forms, for advance of knowledge shows us more and more clearly to how great an extent the preservation of life and health is placed in our own hands; but it is illustrated on a large scale in the history of nations. The lecturer noticed the pestilences which occurred during the early epochs of the history of this country, always preceded as they were by famine, the latter sometimes the result of bad seasons, but rendered fatal in their effects by ignorance of agriculture; by bad laws and want of free communication between districts and countries—more frequently the consequences of foreign wars or civil broils, of the evil policy of kings and nobles, or of popular outbreaks against the violence of rapacious governors. Thence he passed to other causes of public disease connected with social and private life, bringing his notice down to the present time, when sanitary investigation is revealing a state of things in our crowded towns and in our ill-built and ill-regulated villages analogous in all essentials with the abuses prevailing at earlier periods of our history, when habits and modes of living are brought to light in some parts of England in this nineteenth century which could hardly have been more gross in the so-called barbarous periods of our annals. I say (said the lecturer) that it is of vast moment to the interests of humanity that both parties in these matters—the Profession and the public—should understand their share in the responsibility to be borne; an enlightened public must be the correlative of an educated scientific body, or nothing can be done.

But, besides the intellect, there is yet another element, powerful in determining the course of human conduct, which is closely involved in the relation held by the public towards the Medical Profession, and is mainly determined by the spirit in which the work of the Profession is regarded by them. I mean (said the lecturer) the character of its several members. Having commented upon certain conditions peculiar to the Practitioner of Medicine, Dr. Russell proceeded to observe that the position taken by the public towards the expounder of Medical truth has not always been consistent. Sometimes he is erroneously credited with possessing absolute truth, such as is attainable by the student of the exact sciences only, and his responsibility is estimated by this mistaken standard. Sometimes, on the other hand, he is regarded with absolute scepticism, because he does not, like Molière's M. Purgan, "believe in his set rules more than in all the demonstrations of mathematics, finding in remedies nothing uncertain, nothing difficult." In proportion as the student of Medicine has obtained a wider range for his view of the subject, has recognised the diverse relations which it bears to other sciences, and the complexity of the element to be considered, he has assumed a more modest tone. Yet, in view of the grave responsibilities resting on him, there are times when he is ready to take upon himself the language of authority. The conditions with which he has to deal are guided by the same fixed laws with those which govern the physical and moral world; and where such laws have been eliminated, he announces them with the authority of ascertained truth. And in the operation of these same laws is imposed a limit to his power. It is as impossible for science to avert the effects of sensuality upon the bodily functions as for the ethical philosopher to prevent it exerting its baneful influence upon the mind. Nor can Medical science be expected to shield individuals or a community from the consequences of violating the conditions of health. Foul drains will generate fever, let science talk as it will; overtaxed brains will fail, overstrained muscles will ache.

But when speaking less absolutely, the Medical adviser does, in fact, call upon those he addresses to accept their own share of responsibility. The interests with which Medical Science concerns herself are very closely interwoven with those moral and physical agencies which constitute the discipline of life, and regulate a man's moral position in the world; hence it is that the problems of health and disease so often appeal to men as free agents, and require those who receive the benefits of the Medical art to weigh the evidence submitted to them, and to allow due weight to the character of the witness. Let these things be considered, and the Profession will be judged by a fairer standard than that which is cited by Lord Bacon as being so erroneously applied to the Physician, and, perhaps, to the politician—"That he is judged most by the event, which is ever as it is taken; for who can tell, if a patient die or recover, or if a State be preserved or ruined, whether it be by art or accident?"

Dr. Russell concluded his lecture by advising the students that, as their pursuit had a closer analogy with the pursuit of politics than with that of physical science, in that it had immediate relation to man in his individual and social capacity, it was most important for them to attend to the formation of

character, as well as to the cultivation of their intellect; and he endeavoured to point out some particulars in which the discipline of the College and the spirit in which they pursued their studies would conduce to that end.

QUEEN'S HOSPITAL, BIRMINGHAM.

Mr. Furneaux Jordan delivered the Introductory Address. After some preliminary remarks, Mr. Jordan said:—Having learnt, then, all the basic truths of human health, as taught in anatomy, physiology, and human chemistry, you have entered here to learn your highest, and best, and life-long lesson—the truths of disease. A Hospital is a large arena in which you may witness physiology out of gear. I say physiology, because in its largest sense physiology includes anatomy and human chemistry. You will find here practical illustrations of every mode in which physiology can get wrong. You will see, in other words, a great variety of diseases, and see them investigated for definite and ulterior purposes. The objects and the results of such investigations you will be able to arrange under a few definite heads: The causes of disease; pathology, or the peculiar kinds of deviation from physiological health; diagnosis, or the discrimination of one pathological condition from another; and treatment, or the adoption of means for the removal or alleviation of disease. You will see here precisely that kind of work done which you yourselves will have to do in after-life. You will not only see everything done, but you will be taught, if you are able and willing to learn, to do all that you see others do.

And now comes the most important question that can be asked to-day. How are you best to be taught, and how are you best to learn, all about disease—to learn, in short, the science of Medicine? My reply is—In the same way in which you would best be taught and best learn any science, or art, or calling, or trade, or language, or anything which men can be taught, and which they can learn. I shall be glad if I have excited your curiosity to ask, What is this best way? I will answer by giving you in three words the opinion of, as I believe, the highest living authority on such a subject—the opinion, namely, of Mr. Stuart Mill. In learning anything, three things, he observes, are necessary—models, rules, and practice. The most difficult callings are best learnt as a child learns its mother tongue. It imitates such models as are near it, then it is taught rules, then it puts them into practice. If it be given the best models, taught the best rules, and afforded sufficient opportunities for practice, it best learns the language. The most successful clinical instruction, then, I venture with confidence to affirm, is that which supplies the best examples of how diseases are investigated, discriminated, and treated, which teaches the best and truest rules for the observation, detection, and treatment of disease, and which affords the fullest opportunities of imitating the examples, and applying the rules. It is the appropriate combination of these methods of study which leads to success. Both teachers and learners frequently adopt one method to the exclusion of all others. One teacher, if he can be called a teacher, for instance, will set an example only of what has to be done, and neglect to instil rules or give opportunities for practice. Another teacher is indifferent to the importance of models, but will supply rules, perhaps to an indefinite extent, in the shape of formal lectures, in a room in which there is not a single illustration of disease. Another will set examples and teach rules, but will not encourage the pupil to imitate the examples or apply the rules. I am compelled to say that pupils still more frequently fall into similar errors. A certain number are quite willing to witness the models, Medical or Surgical, and sometimes even to imitate them, but they shrink from the labour of learning the rules. These are the so-called practical men. Others see only the importance of the rules, and labour under the delusion that copious notes of systematic lectures and industrious reading by their own firesides will take the place of the imitation of models and of the practical examination of cases of disease. These are the so-called book-men. Incredible as it may seem, a few will neither witness the examples nor learn the rules or principles, but will actually in their own sweet way examine and treat cases. It is difficult to say other of these men than that they are vain and ignorant. It is our duty, as teachers, to set the example of how facts are ascertained. Every method we adopt is the application of some fact, or rule, or principle; and it is our duty to explain these to you. We have, or ought to have, a reason for everything we do; the reasons are the rules. Exacting, questioning, critical pupils develope care, accuracy, and judgment in teachers. Good pupils develope good teachers almost as much as good teachers develope good pupils. Truisms often require repetition. I shall, therefore, say that a teacher must be full of information; he must be accurate; he must be ready in putting his ideas into words; his mind must be clear and direct; his language must be terse and to the point; he must love his work. But this is not enough. He must frequently point to the line which divides the known from the unknown. In teaching the known he must be, more or less, a dogmatist; in inquiring into the unknown he must be a student. But, as a student, he must frequently verify the known, and as a dogmatist he must ever remember that it is his duty to "encourage inquiry rather than enforce belief." But the teacher (and the advanced pupil, too) is often in this difficulty—he has to decide for himself what is known and what is unknown. In examining the new views which are brought before his judgment in constantly increasing amount, it needs that he should be, as regards authority, not too deferential, nor too independent; neither too credulous nor too sceptical.

One great art in clinically teaching the rules or facts of disease is to classify them according to their importance. To interest and impress the student, it is necessary to group clinical truths very much as an artist groups objects in a picture. The large objects must be in the foreground—they must be well defined and stand in a good light; next to these are objects a little less noteworthy; and still further in the shade are smaller but still visible objects. So in disease—there are the large truths, the truths only a little less in size, and the crowd of smaller truths. To put these clearly in their proper place is a laborious, but a much more effective educational means than to relate a dull chronicle of facts. There is as much difference between the two methods as there is between Carlyle's "History of the French Revolution" and the driest chronicle that was ever written.

To get knowledge, however, is not enough. It is well to cultivate every nerve-function through which knowledge may be obtained. I may say, more, by way of parenthesis, that we err in unduly cultivating the ideational aspect of our nervous system. Because in pigs sensations predominate over ideas, we must not, therefore, grow ashamed of our sensations. There is at present a tendency to underrate animals, and to make ourselves as unlike them as possible. Man, however, was not intended to become a helpless bundle of ideas; although the paragon of animals, man is nevertheless an animal. Acuteness of touch, of the muscular sense, of sight and hearing, quick action, endurance, courage, are all necessary to give ideas their fullest value. Trained sight for the use of the microscope, ophthalmoscope, and laryngoscope; trained hearing for the stethoscope; trained touch for the detection of fluctuation, elasticity, doughiness, crepitation, and crepitus, are necessary adjuncts to trained observation and trained reasoning power. I have a strong impression that high nerve-functions run together. Oftenest in the same man are combined the most delicate touch, the truest eyesight, the keenest emotions, the clearest ideas, the strongest will, the promptest action.

But knowledge must be pertinent to our purpose. In the history of Medicine there is no pleasanter fact to contemplate than this. When Medical men have specially pursued sciences which only indirectly bear on clinical work, they have shaken off the responsibility of treating the sick. Men have been too magnanimous to grasp in one hand human life and high classics, or human life and botany, or human life and zoology, or human life and theology, or human life and active politics. Recreation and general culture are not unimportant. A rested and a cultivated mind will best pursue any profession. But if recreation and general culture rise to the first place, Medical science and human life will go down to the second.

Experience has constantly been used to imply something more than knowledge. It may be described in a Medical sense as something more than a keen personal knowledge. It is not a simple act of intelligence. Experience is knowledge intensified by feeling, emotion, life. An idea will pass away; an idea associated with emotion will remain. Disease which has been personally observed, personally pondered, personally treated, is the most vivid clinical experience. To get this kind of experience should be your constant aim. To be of value, clinical experience must be personal, intense, and thorough.

UNIVERSITY OF DURHAM.

The Address was delivered by Dr. G. H. Philipson, M.A., and was devoted to the subject of Medical Education. The aphorism of Paley, that "education, in the most extensive sense of the

word, may comprehend every preparation that is made in our youth for the sequel of our lives," was commended as worthy of daily remembrance, and fitting as the lesson to be inculcated at the inauguration of a new session of Medical study.

The education of the College was contrasted with that of the School, an important difference being that the more self-imposed duties of the College gave place to the fundamental and rudimentary teaching of the School—the mind, in just proportion to its progress, being allowed liberty of action, and the responsibility being removed from the teacher to the taught; the lecturer being able to show the way, and to cheer and encourage by advice and sympathy, but the internal impulse was to be given, and the pilgrimage was to be made, by the student himself—the principle of self-culture and of self-reliance being all-important. It was always, however, to be borne in mind that the course of study and of the examinations were ordained by the authority which has power over the different licensing and qualifying bodies. Whatever the feeling, it would be for the student's welfare and after-success strictly to adhere to the course prescribed; for it was constructed, or it was capable of being used, in conformity with that which was the character of all sound education—namely, to impart useful knowledge and to cultivate the mind. The effect of Medical studies upon the intellect was then considered: first, with reference to the improvement of the powers of attention and of memory, and afterwards the faculty of judgment, observation, and reasoning—the labour of such cultivation, and the means whereby the difficulties could be overcome, being set forth by a reference to anatomy, physiology, and chemistry; the lesson of the value of an orderly arrangement being also drawn from the study of physiology and chemistry; and Materia Medica being instanced as a kind of trial or test of the mind, as far as such was concerned.

The necessity of cultivating the power of observation was also enjoined: it being stated that in studying Medicine, and still more in practising Medicine, as every disease was a problem half known, half veiled in darkness, and as every patient presented not only what was known, but something peculiar and special, the Practitioner of Medicine had to make a constant reference to his memory and to his judgment as to its nature and probable issue; it being to the discriminating exercise of observation that we are indebted for all that is known of the causes of disease, of the recognition and interpretation of symptoms, and of the distinctive features of different maladies.

The importance of constantly aiding the teaching of the lecture-room by the practice of the Hospital was then insisted upon. The two modes of study were to be conducted together; the knowledge contained in books was to be imprinted by the lesson of the ward; and the actual phenomena of disease were to give life and interest to the systematic description. Both were necessary; and no student would do justice to himself or to his art if he should neglect either mode of teaching. The half-uttered denunciations of the present day against systematic lectures were due to their bygone abuse and the former neglect of clinical teaching. But it must be evident to any candid man that both methods of instruction were really required, and that if they were made to complement and aid one another, the end in view would be best accomplished.

The student was advised to repress all independent inquiry, to accept what was told him without seeking to pass beyond it, and to be satisfied with what might be termed the routine of science, until he was quite sure that he would avoid confounding probability with ascertained fact. For, as in his case speculation could not be corrected by direct experiment, and as his imagination would not be kept within bounds by a sufficient breadth of knowledge, he would arrive at conclusions which were utterly untenable, and form inferences which a deeper study would have shown him to be impossible.

After alluding to the obligations of the Profession, its trials and difficulties, the lecturer concluded by saying, "that, as far as the intellect was concerned, the student in Medicine had need for exultation that he was about to enter upon a Profession which, if he would do justice to himself, would inevitably elevate and ennoble him. But as the intellect was the lesser half of man, and as the beauty of mere reason was not to be eclipsed by moral worth, the Profession of Medicine has to be entered upon, not merely with the view of increasing the perceptive and reasoning powers, but also the moral faculties, whereby he could act towards all men with faith, justice, and tenderness. In this spirit, if the student was true to himself, he would never have reason to regret that he had entered upon a Profession which had not only the power of cultivating the mind but also of purifying the heart."

"Yea, when the shattered globe shall rock in the throes of dissolution, still will he stand in his integrity, sublime, an honest man."

LEEDS SCHOOL OF MEDICINE.

The Introductory Address was delivered on Monday, October 2, by the President, Dr. Clifford Allbutt, who said that, at their last meeting, it had been his pleasant task to congratulate his hearers on the approach of their holiday—a holiday which they had well earned by a year of excellent work. He hoped that they would now bring back with them the same free, joyous, and hopeful spirit to their work which they had enjoyed in their recreation. He was himself one who rejoiced in a holiday as much as any, but he thought there was one greater enjoyment, and that was the returning home with clear brain and steady pulse, full of courage for the duties before us. In the remarks which he should address to them, subjects which were called Medical in the strict sense would have prominence. But he would have his hearers remember that, ideally speaking, the art of healing was one; in student life, indeed, there should be no distinction. In practice, however, it was found that no human brain had ever been big enough, nor any human life long enough, to master the recent progress of more than one of the two great divisions in common use — Surgery and Medicine. The President said that no questions could be more urgent than the two which he would now endeavour to answer — viz., 1st, What is disease? and 2nd, Can we cure it? He then referred to the various ways in which these two questions had been answered in various ages of the world; and he pointed out how important the knowledge of the opinions of the past was to those who would really understand the present. During the present century, the rapid development of anatomical knowledge, and a growing sense of the awful complexity and mystery of the human frame, had deterred men from having a lively faith in their own power of usefully interfering with it. Hence a school who disbelieve in Medicine, and would leave all to nature. For his own part, the President held this doctrine to be as dangerous as the more ancient doctrines, which allowed men to undertake cures in rashness and ignorance. He believed, he said, that the supineness of the former school was nearly as fatal in its consequences as the over-zeal of the latter. For his own part, he believed the powers of Medicine—when guided by acute intelligence and tact, an extensive knowledge of remedies, and a wide acquaintance with science—to be astonishing to one who cannot but feel, on the other hand, the difficulties and the dangers of the work to be done. But he believed it to be of enormous importance to take care that the hand was guided by an active and observing mind, with the full light of modern observation and experiment, and, above all, by true conceptions of the nature of disease. Hence the urgent need of a true answer to the question—What is disease? At present a quite new answer was being prepared to this question. In times gone by, nay, even at the present time, there was one very common answer to that question—namely, that disease was something foreign to a man, something which had to be purged out of him, drawn out of him by blisters, expelled through the pores of his skin, or otherwise eliminated. This was like the old legend, to account for a man's wickedness — that he had accidentally swallowed the devil in a lettuce, and that, until the evil spirit was expelled, there was no hope for him. This theory of ejecting disease, and leaving a healthy body behind, still survives in common language, and guides the actions of numerous persons. But this theory must be given up, and its place taken by the view that the human body is like the solar system—a system of parts moving together in balance and harmony. In health, this movement should be so even that all our bodily functions go on unconsciously to ourselves; and disease, on the contrary, is that state when these movements are disordered either by some disturbance from without or by some failure within. The Medical art consists, then, not in the hope of expelling disease and leaving a sound man behind, but in learning the balance and harmony of the functions, detecting their first deviation from true running, and finding means for helping the system to recover its equilibrium. The President illustrated this point at some length in reference to the recent researches into the theory and treatment of fevers. He described the important information of disordered nutritive balance which the thermometer had revealed in these diseases, making their treatment in many cases impossible without watching the thermometer. He explained also how in this way it had been found that

death in many cases of fever was found to be directly due to the overheating of the system, and that this mode of death resembled that called sun- or heat-stroke, and could be induced artificially in animals. Hence the rational and wonderfully successful method of treating fevers by judicious applications of cold, or coolness, in exact proportions to the indications of the thermometer, a practice long ago recommended by our own Currie, largely extended within the last few years in Germany, and which has lately received brilliant illustration in some cases published by Dr. Wilson Fox. The next point which the speaker took up was that of the individual treated. The same disease in different persons presents often quite distinct features, and it is for the Physician to recognise this, and not to rely upon stock formulas, but to treat the individual as a whole. So different are constitutions that it might almost be said that the Physician never treated the same case twice over. The speaker suggested, however, that much more might be done by dividing people into classes, according to the chief varieties of constitution and temperament. He said that by recording and putting together all the various complaints which ran in particular families, an unsuspected relationship might often be detected between two diseases, which at first sight, and seen separately, appeared wholly different. By detecting this underlying affinity the master-key to treatment might be obtained. The various morbid tendencies of rheumatic, gouty, scrofulous families, etc., were then sketched, and a new class of persons was described, whom the speaker proposed to call the neurotic class. Persons having this hereditary constitution presented certain marked features, both in health and disease, which were enumerated and described. The President then addressed himself more especially to the younger students. He begged them to remember that at Leeds there was no intention of instructing them in systems of opinion, in dry dogmas, or in strings of hard words; but they would be taken to nature and to the bedside, and there so associated with their teachers that, on the one hand, the teacher would freely express to them his ideas, his difficulties, his doubts, and his ignorance, and would lead them to see the movement and springs of his own mind and knowledge; the student, on the other hand, would, by inquiries and criticisms, keep alive in the teacher a dread of standing still, a freshness of mind, and a continual openness to new ideas and discoveries. The teacher would give to the pupil accumulated knowledge and maturity of judgment; the student would infuse into the teacher flexibility of mind and renewed enthusiasm. In conclusion, the speaker earnestly called upon his hearers, old and young, to remember that, although it is the glory of the human intellect to measure itself with great problems and thus to prove its own right to handle them, this intellect is as foolishness, and all knowledge but as bitterness, if the heart go not with it. No keenness of eye, no elaboration of treatment, can suffice where a deep human sympathy goes not with them. They might not, and for the most part would not, be called to assuage romantic sufferings, or to minister to picturesque miseries, but to listen to the daily complaints of worn, listless women, to ease the hard cough of querulous age, to snatch from the grave the infant of large towns—that wan, squalid, shrivelled little lump of unmixed sadness. In a word, their work would lie for the most part among common, unlovely, prosaic men and women—among those who, not knowing goodness, have never learned to be grateful; and it was not for them now to enter upon such work as this if they could not feel that in their words and acts, slight and passing as these might necessarily be, yet spoken and done without self in them, they could show that deep compassion with all sufferers which comes simply from a sense of their common human brotherhood. In your own lives, the speaker said, strive not for things afar, cast not, as we are wont to do, all blessings save gold in the face of God, but learn to see and to delight in those simple pleasures which ambitious men too often trample upon. He is happiest who can gather flowers in every pasture; and man can find no better earthly reward when his work is done than cheerfulness and contentment.

LIVERPOOL ROYAL INFIRMARY.

The Introductory Address was delivered by William Carter, M.B. It was directed partly to those who were for the first time entering on Medical study, and partly to those who, having nearly completed their curriculum, expected soon to be engaged in practice. With reference to the number and apparent difficulty of the subjects of study, it was recommended that Captain Bobadil's excellent suggestion, whereby, with nineteen companions, he proposed to exterminate an army of 40,000 men—viz., by calling them out twenty at a time and running them through *seriatim*—should be carried out, and all difficulties would vanish. "Medical education differs from that preliminary education in which you have hitherto been engaged," said Dr. Carter, "as it does also from that of the sister professions of law and divinity, in being partly conducted by lectures and reading, and partly by demonstration and doing. Every one of the subjects of study on which you will have to enter has two distinct sides—one theoretical, the other practical—of which the first is only intended as a guide and introduction to the second; as both are meant, as well by the direct information as also by that education of hand and eye and judgment which they give, to introduce to the one great end of all Medical teaching: the alleviation or cure of disease." Having pointed out the kind of work on which they were about to enter, the lecturer drew the new students' attention to two or three obvious truths, which, because they were so obvious, were often disregarded. The first was, that whenever an hour was announced as the one when a lecture would be delivered, it *was* that hour, and not five minutes or even one minute after it that was meant. Simple as this seemed, it was astonishing how long many gentlemen were in comprehending it, and how industriously they seemed bent, by practising coming a little late to lecture every day, on forming the worst possible habit for a Medical man—viz., that of want of punctuality. A second obvious circumstance was, that they came thither to learn how to alleviate or cure disease; yet indications were abroad that not a few men failed all their lives long to apprehend this. The men whose minds rested in the mere intellectualities of Medicine, who investigated morbid processes and their results, and little more, were comparable to a scientific ship's carpenter who knew the structure of materials and the strain they would bear, and who, from his acquaintance with the laws of fluid pressure and motion, could tell to a minute when a ship with a hole of a certain magnitude in her side would founder, but who had never learnt how to stop a leak. The student studied chemistry and pathology, not that he might become a great chemist or profound pathologist merely, but a good Doctor—a better Doctor than in the long run he could be without them. The danger of disregarding experience because it had come to be a cant word in the mouths of many who had had but little of it was pointed out, and the habit of systematic observation and note-taking of cases urged—the example of Laennec, who, when a pupil at La Charité, drew up a minute history of nearly 400 cases of disease, "that furnished the groundwork of all his future researches and discoveries," being quoted as an encouragement. With reference to reading, the mean between piling many books on the brains till they could barely move under the load, and the dependence on some miserable little duodecimo manual merely was recommended, and to the more advanced students the much-neglected study of the old masters of British Medicine was specially commended.

The second part of the address consisted chiefly of advice on certain points to those students who expected shortly to enter into practice, such as the rash giving of certificates, the unwarrantable adoption of specialities without special knowledge, the appeals to unprofessional people concerning matters strictly Professional, the publication of new methods of cure, and especially the enunciation of novel dogmas in Medicine from interested motives; and, lastly, the temptation to relax all serious mental effort after obtaining a diploma, which assailed many, and more especially those who, by residence in rural districts, were uninfluenced by the stimulus of competition. "But let me tell you plainly, gentlemen, that if, with human life to deal with, and the honour of a ceaselessly advancing Profession to sustain, you ever suffer yourselves to settle down into a careless routine, you will be morally guilty, and only less so than those who from interested motives disseminate principles directly injurious to life and health."

After thus alluding to questionable practices, the address concluded in another strain. "But there is a far nobler road open to *you*, gentlemen, and, having dealt so largely hitherto in warnings, I should like my closing words to be those of encouragement and hope—qualities really far more consonant with my own temper of mind, though in this address I have displayed so little of either. They shall be simply these: that if a man aspires to lead a really useful, honourable, and Christian life, no profession holds out to him so bright a prospect as ours. Its worldly honours, it is true, are not very great, and its material advantages, at the best, but moderate. Unlike the sister professions of law and divinity, it has no

higher sphere of nobility into which its aspiring men can hope to soar; but it has within its range scope enough for useful labour to satisfy the desires of anyone who reflects that after his short life must come a long and inevitable retrospect."

MANCHESTER ROYAL SCHOOL OF MEDICINE.

The Introductory Lecture to the winter session 1871-2 of the Manchester Royal School of Medicine was delivered in the theatre of the institution, Faulkner-street, by Mr. R. T. Hunt, Lecturer on the Physiology and Pathology of the Eye. He said: I do not think that the allotted time can be better occupied than by explaining my views on the subject of Medical Education. These views may in some respects be different from those usually entertained, but may at least have the effect of inducing the student at the commencement of his career seriously to consider what method of study is the best adapted for the prosecution of that knowledge which will fit him for the future practice of his Profession. Public lectures, private study, and attendance in the dissecting-room and on Medical and Surgical practice in the Hospital, are the means of completing his education which are offered to the student. The utility of lectures has been acknowledged from the earliest times of civilisation, and as attendance upon them is required by all the examining bodies, it becomes the duty of every student not merely to be regular in attendance upon lectures, but also to reap all the benefit which may accrue from this mode of tuition. By directing the mind to a fixed subject at a fixed hour, the valuable habit of concentration of thought is much strengthened—a habit which will be found of the highest importance in the future practice of your Profession. A student may think that he will devote a certain portion of time every day to the study of some particular subject; and doubtless those whose minds are of a methodical and systematic character may be enabled to do so. But this is not the case with many. Something may occur to induce the deferring of the study of this subject to another hour, or even to another day; and when this insidious habit of procrastination is often indulged, the evils to which it may lead in the acquirement of knowledge, as well as in conduct through life, are incalculable. An attendance upon lectures at a fixed time is a great check, if not a complete remedy, for this injurious disposition of the mind. Connected with this part of the subject is a question upon which there is some difference of opinion. Is it useful or not to take notes of a lecture? A reply to this will require some modification, according to the nature of the lecture. It will at once appear that when a lecture consists in demonstration of the various structures of the body, whether healthy or morbid, or of models or drawings which illustrate these conditions, taking notes would materially interfere with that attention which ought to be given to the descriptions of the lecturer. The same remark will apply to lectures on chemistry, Materia Medica, and botany, but not to the same extent. In all these instances very short notes are quite sufficient, as an opportunity can be afforded to the student for after-examination. But a careful taking of notes of lectures on Medicine, Surgery, pathology, and Forensic Medicine, provided the notes are not too copious, will much facilitate private study. The limited number of lectures upon each of these subjects requires a condensation and arrangement by the lecturer, which will be an excellent guide to the student in directing him in his reading. Medical literature is of such vast extent that the student may well be perplexed by the first consideration of it. But assiduous attention in the first instance to all its elementary parts in the succession in which these are arranged in the prescribed course of Medical education, and confining as much as possible the attention to the elementary branches until these are thoroughly mastered, will be the only good preparation for afterwards acquiring a knowledge of the more difficult and complicated branches of Medical study. With regard to your reading, let it be confined chiefly to those subjects which have engaged your attention at lectures during the day, but restrict your evening studies to the revising your notes, and do not burn the midnight lamp. After the mind has been engaged all day in acquiring knowledge, it is not in so good a state for steady and serious reading as it will be on the following morning, after the refreshing sleep of the night. The ideas then are clear, the judgment sound, and by an hour or two of real study, not mere reading, the mind is admirably prepared for the labours of the ensuing day. On the contrary, night study can only be carried on by a degree of excitement which, if long continued, both impairs the mental powers and is highly prejudicial to the general health. If the statistics of the after-life of those who have taken high honours at our universities could be obtained, I have not the slightest doubt that these would disclose a lamentable list. Some die from head affections, at a shorter or longer period after examination; the minds of others are so enfeebled as never to regain their full power, and very many die consumptive. Those who take a high position in life form the exception. The examples of the advantages of early morning study to men of science are numerous. I may mention John Hunter, Sir Walter Scott, and many others whose numerous publications are well known. The subject of collegiate Medical education has often engaged the attention of the Profession, and it is probable that the Medical students of Manchester will in future possess the advantages of university education by means of Owen's College. A very important question arises as to the time in the student's career in which these advantages can be rendered available. A student's time is so fully occupied, according to the present arrangement of Medical education, by strictly Professional studies, that attention to the classics, mathematics, or other departments of science would most materially interfere with that uninterrupted attention which his Medical studies require. From this it follows that the other branches of education should be considered as only preparatory, and consequently should be undertaken previously to the commencement of Medical studies. The arrangement of your studies is well adapted for the acquirement of that knowledge which is essential to the future practice of your Profession. Anatomy and physiology form the chief foundations of that knowledge which is afterwards employed in the treatment of disease and injury to the human frame. I fear that the attention of students of the present day is too much devoted to minute or microscopic anatomy, before having thoroughly acquired a knowledge of elementary anatomy. By elementary anatomy I mean that knowledge of all the structures of the body which can be obtained by teaching, by observation, and more particularly by dissection. I do not at all wish to discountenance minute anatomy, but during the course of Medical study it is much more material thoroughly to acquire the elementary knowledge before the student attempts microscopic examinations, except under the direction of his teacher. The results of these he will have described to him in the lectures, and he can rely upon these until the advance of Medical science clears up many difficulties connected with minute anatomy. Physiology, which is founded upon anatomy—the knowledge of structure necessarily leading to the use for which such structures are intended—will require your strict attention, and you will in its study at once observe how much remains still unsatisfactory of this important department of Medical science. You will meet with conflicting opinions and a great many different theories with regard to the functions of the various parts of the body. There being both true and false theories, it should be the business of every student, before accepting any theory, to see what there is to support it and what is said about it by those better able to judge of its correctness than ourselves. Sir Isaac Newton, for instance, no doubt greatly advanced the science of optics—indeed, almost all the rules of what may be called mathematical optics have only been the more distinctly proved correct by the lapse of time. But this does not apply to his theory of the real nature of light, which he supposed to be a material body that passed through transparent substances. According to the opinion of those best qualified to judge, the vibratory or undulatory theory is now proved to be the true one. If, therefore, a man of the transcendent talents of Sir Isaac Newton gave rise to a mistaken theory, scientific students should be very guarded in receiving any theory until it has been properly confirmed by experience. Among what I may presume to call modern fanciful theories are that ridiculous one of Darwin in regard to the origin of species, and of Huxley regarding vitality. Because these theories may be wrong,—and are wrong in my humble opinion,—that is no reason why we should rashly conclude that other theories presented to us are not right; but we should at all events remember that the only theory which is truly useful is that which is not made for facts but is founded on them. Only some minds are fitted to theorise and generalise, but even the humblest among you can record, from your own experience, facts which may prove valuable as supplying missing links in some theoretic chain. While appreciating in your work the value of such mechanical assistance as the microscope, stethoscope, and ophthalmoscope, you must not place too much reliance upon these aids, to the neglect of your own natural

means of acquiring information by observation in the science of anatomy, in post-mortem examinations, etc. With regard to the moral and general conduct of Medical students, so much has been published in the host of introductory lectures that I do not feel it in my power to offer anything new upon this subject. I can only offer my assent to the general views which have been taken, and say that my firm conviction is, that no man who is not a good member of society can be a useful and honourable member of our Profession.

SHEFFIELD SCHOOL OF MEDICINE.

The Introductory Lecture was delivered by Mr. A. H. Allen, F.C.S., Professor of Chemistry. He commenced by observing that the modern Medical Practitioner was distinguished from the mediæval leech by a greater command of the forces of nature, of the discoveries of chemical and physical science, and by his far superior knowledge of anatomy and physiology. Probably the Physicians of the present day were as much sought after and as thoroughly appreciated as those of any former decade; but how wonderfully had the nature of treatment changed, and the amount of Doctor's stuff diminished. This was probably due to two or three distinct causes. Firstly, physiology was better understood, and the scientific Physician was loth to employ remedies, the mode of action of which he was at a loss to divine. Secondly, the extraction of pure alkaloids from their impure matrices, the use of concentrated preparations of iodine instead of the old remedy of burnt sponge, and the facility with which most active principles were now obtained in a state of purity, had naturally tended to diminish the amount and frequency of the doses prescribed. And, thirdly, the great heresy of homœopathy had caused Medical men to reduce the size of their doses, and to pay greater attention to diet than was formerly the case. In his opinion physics and chemistry should receive from Medical students far more attention than was at present devoted to them. Being the very groundwork of the various complex actions met with in the practice of Medicine, how could it be possible to acquire a thorough knowledge of those complex effects without an intimate acquaintance with the various natural causes which produced them? The more thoroughly the phenomena of life were investigated, the more definite and fixed became the idea that there was no such thing as vital force in the sense in which it used to be understood, and that all vital actions were directly or indirectly referable to well-defined chemical or physical causes. It was often argued that the real cause for certain observed effects was obscure and inscrutable, and that it was preferable in practice to trust to well-ascertained empirical facts without attempting to obtain assistance from a consideration of their origin. But was not the undeniable obscurity with which many of the phenomena of life and disease were enveloped, in a great measure the great consequence of the ignorance of the bulk of the practisers of Medicine of the discoveries in chemistry and physics? And if the general absence of physical and chemical knowledge continued, how could they hope that successful attempts would be made to unravel the secrets of vital action? Better to make use of such knowledge as they possessed, and walk in the dim and imperfect light which it gave them, than to trust to our acquaintance with the path, and be content to walk in the absolute darkness of ignorance that believed itself blissful. Believing, as rational men must do, that no effect was without its cause, they should leave no means untried to ascertain the reason why the various therapeutic agents produced certain physical results; and great as had been the advance made in that direction of late years, infinitely more still remained to be done; and the man who succeeded in solving any of the great problems that had hitherto baffled investigators, would undoubtedly be instrumental in saving infinitely more lives than he who was content to make a living out of the afflictions of humanity without the will or the power to advance the cause of Medical science, and thus indirectly benefit his fellow-creatures. The nature of infection was a subject on the border-land of biology, Medicine, and chemistry, and was one of special interest just now, when they were threatened with another of those fearful periodical scourges which the most extensive knowledge and elaborate precautions had so often proved powerless to avert. It was quite certain that not only cholera, but all zymotic affections were the result of bad sanitary arrangements unworthy of any community professing civilisation; and the epidemics from which we periodically suffered should not be regarded as visitations from Heaven, but as the direct and logical consequences of our own neglect of sanitary matters, and our unpardonable habit of permitting privies and ashpits to exist in the midst of our densely populated towns. If everyone in times of epidemic disease could be induced to abstain from excess of either eating or drinking; would avoid all drinking-water which had not been previously boiled with enough permanganate to render it pink, would make a moderate use of disinfectants and antiseptics, and would remove all excrementary and other refuse matter without delay, they would hear comparatively little of the fearful mortality consequent upon the neglect of such obvious precautions—which, indeed, were very desirable even in the absence of epidemics. He hoped they might live to see the day when the elements of sanitary science would be taught with the three "R's" to every child in the kingdom.

The University of Dublin had recently gained a most honourable distinction by being the first to establish a much-needed degree in sanitary science, and the lecturer hoped this step in the right direction would meet with all the success it merited, and lead to similar advances in other universities.

ORIGINAL COMMUNICATIONS.

ON "FLAT"-FOOT.

By C. F. MAUNDER,
Surgeon to the London Hospital.

The owner of flat feet often finds himself so crippled, and these members are frequently so great a source of pain, that I venture to illustrate a simple method of affording relief by detailing the history of an aggravated instance of the deformity.

R. S., now 24 years of age, was ill for a month with fever eleven years ago. Having recovered, he returned to his work as a gardener's assistant, and soon experienced pains and weakness about both inner ankles. These became worse, with "dreadful" pain when standing—not otherwise—and soon so bad that he could not put his feet on the ground. After resting for three days, he could manage to creep about for a day. He used to work in bandages, but with little benefit, and the cold douche and liniments were employed in vain. In this plight, and having been helpless and in pain for twelve months, the lad, then under the care of Mr. J. Stilwell, of Uxbridge, came under my observation. The feet presented the usual ungainly appearance of the deformity in question, the left foot having suffered most. "Frightful" pains arose on his attempting to stand, or on pressure being made on the soles. He was advised to wear, on each foot, a lace-up boot, and in the boot an arch built up on the inside, to serve as a support, and, as it were, raise the now sunken natural arch.

October 21, 1870.—To-day R. S. visited me for the first time since our former interview. He reported that the above contrivance allowed him to get about at once, with gradually decreasing discomfort, when at the expiration of six months all inconvenience had vanished while he was wearing the boots, but he was not quite at ease without them. The arch was made by laying one piece of leather upon the other, each fresh piece overlapping the former, till a mound rose up in the centre, and then this was fixed to the inner side of the boot. By adding a fresh piece of leather the height was from time to time increased. He wore out four pairs of these boots during two years, and then found the support no longer necessary. For the last nine years he has had no pain; his feet are strong, and he is a signal-man on the Metropolitan Railway, and on his feet ten consecutive hours daily. During the whole of this period he has been actively employed, and has even run a mile in less than five minutes for a wager.

This deformity is occasionally marked by hereditary tendency, but more frequently is independently acquired; and the anatomical structure of the part explains this. If from any cause whatever a start is given to a sinking of the arch of the foot, either by yielding of the plantar ligaments or weakness of the long muscles, which should help to hold the foot in its natural relation to the leg, the mere weight of the body, conveyed through the tibia to the astragalus, will constantly tend to push the latter forwards and inwards towards the ground, such being its natural tendency. During the acquisition of the deformity and ever after, if unremedied, the weight of the body is no longer distributed in due proportion by the astragalus to the other bones of the tarsus, but must be borne by itself and by the subjacent tissues. It will not, therefore, be a matter of wonder that severe pains result from stretching of and pressure upon parts

thus overtaxed, but even disorganisation of the joints may occasionally be expected. Such an instance has occurred to myself in the case of a lad, a butcher's assistant, on his feet all day. The patient came under my care through Mr. Holman, of America-square, and ultimately I removed his foot at the ankle-joint. The complaint often begins and progresses very insidiously, the sufferer complaining of pain about the inner ankle towards night, but he cannot put his finger on the spot. The commencing deformity may be recognised in its early stage by letting the patient stand with his foot and leg bare to the knee. An inward tendency and prominence of the inner malleolus, and a corresponding sinking of the external ankle, will be observed, whether the limb be viewed from before or from behind. The appearance of the boot, too, if it have been long worn, is characteristic, and was well illustrated in the case of an itinerant Wesleyan preacher referred to me recently by Mr. G. Weller. In this instance the deformity was almost *nil*, but I believed it to be incipient. With regard to treatment, should undoubted signs of inflammation be present, perfect rest must be given to the limb, and other means suitable to the individual case be resorted to. But in the absence of inflammation, moderate exercise should be allowed, lest all the structures of the foot and muscles of the leg lose tone and atrophy. Some form of mechanical appliance (not necessarily the one described), of which there are many in use, should be worn to support the arch of the foot. Every means of improving the general health should, of course, be employed.

New Broad-street.

A CASE OF ACUTE DROPSY WITHOUT ALBUMINURIA.

By FREDERIC TAYLOR, L.R.C.P.L.

Although cases of acute dropsy with albuminuria are by no means uncommon, yet I believe it rarely happens that a case is met with in which no signs of albumen can be discovered, and which cannot be referred to an affection of the heart or any other organ. Having lately had a case of this description under my care, I now give the particulars, some of which are of an interesting nature.

G. R., a labourer, a strong, healthy-looking man, aged 30, applied to me on March 20, complaining of rigors and chilliness, with pain in his limbs, attended by great febrile disturbance and cough. Upon questioning him, I found that he had been exposed to wet and cold a day or two before he applied to me. When I examined his chest, I could find no deviation from the natural sounds of the heart, or irregular movements or alteration of its force or pulsations. Finding, however, that there were slight wheezing murmurs, and that the breathing was rather embarrassed, I thought it proper to order him a mixture of chloric ether and acetate of ammonia.

On visiting him the next day, I found that he had passed a very bad night, the cough having increased, the breathing becoming more difficult, and the febrile disturbance greater. He also complained of a feeling of stiffness in his face, which had distinctive swelling, particularly about the eyelids.

March 22.—Passed a bad night. The face and eyelids were more puffy and œdematous, and the back of the hands and the arms slightly so. The cough was more troublesome, with expectoration of bronchial mucus and hurried breathing. I examined the urine carefully by heat and nitric acid, and was surprised to find not the least trace of albumen. The bowels not having been relieved, I ordered him a compound jalap powder, and small doses of opium with the mixture.

23rd.—Had a restless night. The eyelids, face, hands, and arms were more puffy and œdematous, the surface of the chest only slightly so, but the swelling of the areolar tissue was more marked on the thighs and legs. The breathing was performed with difficulty, the respirations being short and hurried. He also complained of headache, restlessness, pain and tenderness in the loins. There was no vomiting; the tongue was slightly coated; with a pulse of 85. The urine was scanty and very high-coloured, of specific gravity 1020, with very frequent micturition. The cough and paroxysms of dyspnœa were increased at night. The breathing-sounds through the chest were very indistinct, from moist, wheezy murmurs. I examined the urine, but there was no albumen to be found. As there had been no action of the bowels, I repeated the compound jalap powder.

24th.—Passed a bad night. I found the dyspnœa increased, micturition more frequent, cough more troublesome, and the swelling of the areolar tissue greater. The bowels, however, were relieved freely. I examined the urine by heat and nitric acid, and also by nitric acid alone, but not the slightest trace of albumen was there to be found. I continued the same treatment for the next four days, during which time he remained about the same. I each day examined the urine, but there was no trace of albumen.

29th.—Passed a better night. Febrile disturbance diminishing, and the paroxysms of dyspnœa less often. There was still no albumen. Micturition was frequent, but the œdema the same.

30th.—Had a tolerably good night; the fever less, and the paroxysms of dyspnœa diminishing. Micturition was less frequent, but the œdematous swelling the same.

31st.—Feels better. The breathing was less difficult, the cough not so troublesome, and the dropsical infiltration of hands and face diminished. The bronchial expectoration was lessened in quantity, but the moist wheezing murmurs much the same.

April 1.—Passed a quiet night, the cough being better, and the paroxysms of dyspnœa not so frequent. The breathing was performed with greater ease, and the febrile disturbance less. The urine was more abundant, and lighter in colour.

2nd.—Had a good night, the breathing being much better, and he can now take a tolerably deep inspiration. The œdematous swelling was less. From this time he kept daily improving.

By April 5 the œdematous condition had nearly disappeared, and the dyspnœa had quite left him. By April 10 there was no œdematous swelling to be found on his face or lower extremities, or, in fact, any part about him. The cough had nearly left him, and the chest-sounds were natural, except very slight bronchial murmurs. By April 15 he was perfectly convalescent, and very soon after he was able to resume his usual occupation. From that time up to the present date he has been in perfect health.

From the beginning to the end of this interesting case I was unable to discover the least presence of albumen, although I was exceedingly careful in my examination, as from the symptoms present I felt certain that it was a case of albuminuria. Upon inquiry I found that the patient had never suffered from rheumatism or any other illness, and was in no way addicted to habits of intemperance.

From the commencement of this case there was no symptom indicating any pulmonary or cardiac disease. It would seem evident that the dropsical condition of the body was the result of an acute febrile attack, in which the kidneys were not affected otherwise than the condition indicated by scanty urine.

ANALYSIS OF ONE HUNDRED AND EIGHTY-TWO CASES

TREATED IN THE LOCK WARDS OF THE ROYAL PORTSMOUTH, PORTSEA, AND GOSPORT HOSPITAL.

By JOHN WARD COUSINS, M.D. Lond., F.R.C.S.

Number of Patients admitted without any Constitutional Manifestations of Syphilis—127.

Disease of Genital Organs on Admission—	
Vaginal discharge	73
Ulceration	54
Local Complications—	
Bubo	5
Abscess of labium	3
Swelling of urethral orifice	5
Condylomata	10

Number of Patients admitted with Constitutional Manifestations of Syphilis—55.

Disease of Genital Organs on Admission—	
Vaginal discharge	25
Ulceration	30
Local Complications—	
Induration and enlargement of external organs	4
Sloughing ulceration	3
Induration, swelling, and chronic ulceration	5
Abscess of labium	2
Bubo	2
Condylomata	8

General Complications—	
Ulceration of mouth and throat	8
Ulceration of extremities	3
Dermato-syphilis	16
Relapsing iritis	3
Phthisis	1

All the cases included in the table were treated in the Hospital between October 1, 1869, and May 31, 1870. The patients are divided into two classes: (1st) those who were free from any constitutional manifestations, and laboured only under local disease; (2nd) all in whom there were unmistakable signs of syphilis. The table also indicates the character of the local disease at the time of admission. By far the greater number of prostitutes are found labouring under only a morbid condition of the extensive mucous surface of the vulva and vagina, which sometimes extends to the lining membrane of the uterus. In many nothing can be detected but an unhealthy secretion covering the surface, and retained by the vaginal rugæ. This discharge is often abundant, and varies considerably in character; sometimes it is puriform, at others thin and semi-transparent. Occasionally redness and congestion of the external organs are seen extending just within the vagina; but in chronic cases the principal seat of morbid change is found to be at the upper part of this canal. Here the mucous surface is often granular and red, and bleeds on the introduction of the speculum. The os uteri is often swollen, patent, and indurated, but seldom tender on pressure. Sometimes the canal and cavity of the uterus are involved, and purulent secretion oozes freely from the os during the examination. A swollen and indurated state of the mucous membrane around the meatus urinarius is also occasionally seen. The swelling is usually red and prominent, involving the whole or a part of the orifice, and is quite free from excessive sensibility. The caruncule myrtiformes are often enlarged in a similar manner. I am aware that the discharge of intractable gonorrhœa has often been considered to be in a great degree uterine, but in my opinion the diseased action extends to this organ much more frequently than is generally admitted. In a large majority of cases this disturbance of the mucous surface of the genital organs is essentially of a chronic character; for out of the whole number included in the table there were not more than two cases which presented symptoms approaching acute gonorrhœa. A large number of prostitutes labour habitually under chronic vaginal discharge, which is capable of exciting disease in the male.

Another table shows the number of patients admitted under my care with venereal sores without syphilis. It is probable that some of these patients may subsequently have exhibited some symptoms of syphilitic poisoning, but all the time they were under my treatment they were free from any trace of constitutional disease. Some part of the mucous surface was most frequently the seat of the ulceration, but a few sores were cutaneous. Some were inflamed and painful, with a red areola, and secreted a yellow discharge; others were raised and prominent, with granulations; and a few were indolent, indurated, and very obstinate in healing. The cutaneous sores were either superficial, secreting a thin discharge, or elevated and desquamating papulæ. It is my experience that hard or indurated ulcerations are seldom seen in women. In a few cases sores were found at the upper part of the vagina when their existence was little suspected, and some on the neck of the uterus, in close relation to the os, which was at the same time swollen and congested. These uterine ulcerations were always very superficial, and generally presented a red and granulating base.

In Class No. 2 are arranged the patients who laboured under constitutional disease. In twenty-five cases chronic vaginal discharge existed alone with some general manifestations of syphilis. In twenty-nine other patients some form of local ulceration was present, and eight were cases of great severity. Three were sloughing ulcerations, attended with grave constitutional symptoms, and the remaining five were chronic ulceration of the vagina, associated with hypertrophy and induration of the clitoris and labia; and this is one of the most intractable of all local syphilitic injuries. I believe that the enlargement and infiltration of the genital organs is a sure indication of a very deep constitutional taint. Four of the patients under this class were ultimately discharged from the Hospital under the certificate referred to in the 31st clause of the Contagious Diseases Act of 1861.

In one case that came under my care there was enormous labial hypertrophy, and the clitoris appeared as large as a child's head at the time of birth. This patient, strange to say, was pregnant, and I lost sight of her. (This case occurred among the out-patients.)

The cases of skin disease mentioned in my table were the ordinary papular and tubercular forms. There was one case of rupia simplex in a very young girl, associated with an obstinate eczematous and tubercular rash over many parts of the body. During her convalescence the peculiar stains were very persistent, and on several places on her arms they assumed the form of crescentic rings of different shades, the external ones presenting the deepest colour.

(To be continued.)

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

UNIVERSITY COLLEGE.

The students at this Hospital had the opportunity of witnessing several operations in the theatre during the first week of the new session. Those performed on October 4 were the following:—

Case 1.—*Amputation at Knee-joint for Chronic Disease.*

Mr. Erichsen amputated the leg of a young man at the knee-joint for old-standing disease of the joint. In his remarks upon the operation, he said that he had performed amputation rather than excision, as the latter treatment would have left the limb too short and too deformed to be of much use to a working-man; and he pointed out that in making the flaps—viz., a long anterior and short posterior—as the patella was anchylosed to the condyles of the femur, he had been obliged to dissect the skin from off it, instead of adopting the usual proceeding of taking the patella out from the soft tissues after the anterior flap had been fashioned. The ends of the condyles of the femur he had also removed, owing to a considerable amount of ulceration of the cartilage covering them. This he did not think was of much importance, as the medullary canal had not been opened, and therefore no extra amount of danger from osteo-myelitis would be incurred.

Case 2.—*Encysted Hydrocele, and Hydrocele of Tunica Vaginalis.*

This was a large tumour occupying the left side of the scrotum of an old man: it was the size of a melon, and had existed for twenty-eight years, though it had not increased for the last twenty years. The large swelling was divided upon the surface by a well-marked constriction, which gave the appearance of there being two sacs. Mr. Erichsen remarked that the diagnosis of the case from a scrotal hernia was easy, owing to the absence of any impulse on coughing, and to the presence of distinct fluctuation. He suspected that the constriction seen upon the surface corresponded with a division of the tumour into two sacs, and thought it very probable that one of the two divisions would prove to be an encysted hydrocele. This, he said, would be detected after the fluid was drawn off by the presence in the fluid from one or both the sacs of spermatozoa. The diagnosis as to the complete separation of the two turned out to be quite correct. From the smaller sac clear straw-coloured fluid escaped, and in this Mr. Beck found that spermatozoa were present. The larger cyst contained a much darker-coloured fluid, and no spermatozoa were discovered in it.

Case 3.—*Partial Dislocation of Knee.*

An interesting case of partial dislocation of the left knee-joint was next brought under the notice of those present. This was in a man about 50 years of age, who two months previously had slipped from off a ladder, and besides severely lacerating the soft parts of the calf of the leg and skin of the popliteal space, had dislocated the left tibia outwards and slightly backwards. The leg was fixed at nearly a right angle with the thigh, so that the calf of the left leg crossed over, and (the patient being on his back) rested upon the right leg an inch or so below the right knee; it was thus quite useless. There were, besides, the traces of an extensive skin wound in the situation alluded to, and considerable contraction of the tissues had followed the healing.

After alluding to the distinct history of the injury, Mr. Erichsen laid stress upon the importance of attempting at once to remedy the deformity; delay, he said, would render all endeavours hereafter useless and certainly unsuccessful, whereas now, only two months after the accident, and with the aid of chloroform, there was a fair prospect of producing a great improvement in the position of the limb. When the patient

was completely under the influence of chloroform, the left thigh was firmly held by an assistant, while Mr. Erichsen with his left hand firmly held upon the outer condyle, and his right hand grasping the foot, forced the foot gradually upwards and outwards, and by these means he brought the leg into a line with the thigh. A good deal of angular deformity, however, still remained, but this was due, not to any unreduced dislocation backwards, nor to contraction of the hamstring tendons, so much as to the contraction of the soft parts which had been injured at the time of the accident. To overcome this, therefore, he made no further attempt at the time, but hoped, by placing the limb upon a back extension-splint, to at length nearly or quite get rid of the angular deformity also.

Case 4.—*Dislocation of Wrist forwards and to Ulnar Side.*

This resulted from an accident some long time previously. The carpus was displaced on to the palmar aspect of the bones of the forearm and to the ulnar side, and the trapezium could be distinctly felt in front of and to the ulnar side of the end of the radius. Mr. Erichsen remarked that dislocations of the wrist, simple and complete, were very rare accidents, though not unfrequently cases of Colles's fracture were mistaken for such. Casts of some true dislocations of the wrist were, however, to be seen in the museum of University College, to one of which — a dislocation backwards—he especially referred. In attempting the reduction of such cases, a caution was given to the students not to employ any great amount of force, as much more was to be effected by moulding and intelligent manipulation than by a too liberal use of muscular effort. The truth of this doctrine was shown by the result; for after some backward, forward, and rotatory movement of the hand, with extension from the fingers and pressure upon the ends of the radius and ulna, a considerable improvement was made. The limb was then bandaged upon a pistol-shaped splint placed upon the extensor side of the forearm and hand, whereby the hand was retained away from the palmar aspect, and kept back upon the articulating surface of the radius.

Case 5.—*Wood's Operation for Varicocele.*

Mr. Berkeley Hill also operated on the same day upon a case of varicocele of the left side, in a young man, who was the subject of spermatorrhœa, and who admitted having practised masturbation to a considerable extent. Mr. Hill drew attention to the fact that varicocele was one of the ill-consequences which not infrequently resulted from the habit of self-abuse. He then explained the principle of the operation he was about to perform, and said that the effect produced by the plan he was about to adopt—Wood's operation—was that of the gradual division of the enlarged veins.

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Medical Times and Gazette.

SATURDAY, OCTOBER 14, 1871.

THE INTRODUCTORY LECTURES.

This week our pages contain abstracts of several of the Introductory Addresses delivered in the Provincial Medical Schools. One of these, the able lecture of Dr. Clifford Allbutt, at the Leeds School, we have already noticed. At Queen's College, Birmingham, Dr. Russell began his address with some quotations from a book very little read now a days, we suspect—Burton's "Anatomy of Melancholy." That quaint and learned old writer, in his chapter on the cure of melancholy, reminds the patient that he has a duty to perform towards his Doctor as much as his Doctor has towards him, and he points out that unless this reciprocal obligation be duly recognised, the relation between Doctor and patient will be marred, and the benefit which such relation was designed to confer will fail of being attained. Dr. Russell, in developing the subject suggested by his quotations, commented on the effect produced on Medical science by the state of general intelligence and education, and showed that the character of Medical inquiry in different parts of the world has taken its tone from the prevailing genius of the country in which it was pursued, and that "an enlightened public must be the correlative of an educated scientific body." Dr. Russell also pointed out that "the interests with which Medical Science concerns herself are very closely interwoven with those moral and physical agencies which constitute the discipline of life and regulate a man's moral position in the world; hence it is that the problems of health and disease so often appeal to men as free agents, and require those who receive the benefits of the Medical art to weigh the evidence submitted to them, and to allow due weight to the character of the witness." Dr. Russell's address may be very usefully read by the general public, as well as by Medical students.

We regret that we could not publish and comment on all the Introductory Lectures last week; for, in the rush and hurry of life, there is some danger of addresses nearly a fortnight old being overlooked. We hope, however, that both the Provincial and the London Addresses which we give this week will receive thoughtful attention; they will well repay it. Dr. W. R. Basham, at the Westminster Hospital School, usefully defined the terms "Science" and "Art," and pointed out and dwelt upon the attributes of Medicine, both as a science and an art. "It is a Science," he observed, "in relation to the means and sources from whence it is derived; for it is built up of many, if not all, the other natural sciences. It is an Art, however, in its exercise, and its value is proportioned to the scientific training, the tact and judgment of the individual practising it; an art which, for extent and variety of knowledge possessed by its more distinguished members, is not exceeded, scarcely equalled, by any. Its utility is universal, for it is exercised with advantage and benefit in every region of the world; alike useful to all nations, peoples, and creeds."

We very gladly publish a copious abstract of Dr. Alfred Meadows' Address at St. Mary's Hospital. It is a straightforward, fearless, and active-couraged confession of faith in revealed religion and in the revelation of true science, of ignorance concerning the mystery of life, of acknowledgment of the apparent finiteness of man's powers of research and comprehension, and of dissent from the scepticism of intellectual pride. Scientific observation and inquiry have received such potent aids in these days from man's mechanical skill, scientific knowledge has made such vast strides, and we have gained such an immensely increased command and control over the forces of nature, that we are apt, in our pride of intellect, to think that we can understand the why, the how, and the wherefore of everything; that things unseen are as clear to us as the things that we can see and handle; that "under our command is earth and earth's, and in our hand is nature like an open book." But it is well, and more than well, that it should be pointed out to our students that at any rate we have not yet reached this point; that God and Nature are not at strife, and that the revelations of true science do not prove the Bible to be a collection of myths, and the Christian religion a worn-out phase of education and thought, that has served its purpose, and must now be given up. "Knowledge

comes, but Wisdom lingers"; and in our love of Knowledge, and reverence for her use and beauty, we need reminding at times that she must, "if all be not in vain," move "side by side with Wisdom, like the younger child."

We venture to hold that Dr. Meadows has done good and true work in pointing out the difference between true science and speculation in science: in showing that the hypothesis of "the physical basis of life" is, as yet, "not proven"; and in boldly asserting that, "not even the clearest proof of the so-called physical basis of life, nor the actual demonstration of any single fact in science, however much it might seem to contradict my most cherished beliefs, would have the smallest influence in shaking my faith in the fundamental truths of Christianity. Regarded from a religious standpoint, it matters nothing to me whether the functions of my body or the growth of a tree are performed in obedience to what is called a physical or a vital law; neither am I concerned to know whether I sprang from a marine ascidian or from nothing, for I know that all laws and all matter, whether in the animal or the vegetable kingdom, the organic or the inorganic world, must have originated from the Great Lawgiver, and that He saw that they were good."

The whole of Dr. Meadows' Address deserves earnest and thoughtful perusal. It is particularly well calculated, we think, to be useful to young and eager minds entering on the study of science and of the mysteries surrounding our life; and while he fully recognises the conscientiousness and thoughtfulness of inquirers from whose conclusions he so much differs, he rightly warns students that "Falsehood is never so successful as when she baits her hook with Truth; and that no opinions so fatally mislead us as those that are not wholly wrong—just as no watches so effectually mislead the wearer as those that are sometimes right." We thank Dr. Meadows for his Address.

OFFICERS OF HEALTH AND UNION MEDICAL OFFICERS.

In the address, at the opening of the Social Science Congress, delivered at Leeds on the 5th inst. by Mr. Hastings, President of the Council, that gentleman made some observations on the question of sanitary reform, and the appointment of Medical Officers of Health.

Mr. Hastings urged the importance of adopting large areas for sanitary administration, and the necessity for the employment of efficient Officers of Health, and he recommended that the salary offered should be such as would secure the services of Medical men of trained intellect and high character. He thinks that the remuneration attached to the office should be of such an amount as would enable the authorities to stipulate that the officer be rigorously debarred from private practice, in order not only that he might devote his whole time to the functions of his office, but that he should be free from private influence in the performance of his duties.

The services of such an officer could, in Mr. Hastings' opinion, be obtained by counties, but seldom or never by unions. He therefore suggested that the Officer of Health should be appointed for the county, as the rateable area of the county, supplemented by boroughs which would unite with it for sanitary as they now do for gaol and police purposes, could sustain such a Medical man at a cost under which the unions must break down.

He protested against the system under which it is proposed to place the sanitary welfare of the county in the hands of the Union Medical Officer, and—whilst admitting the services and merits of a body of men signally underpaid for their work, denied the social recognition of enrolling themselves in the civil service of the Crown, and struggling manfully in the great majority of cases, though beset with difficulties, to do their duty to the poor—he expressed his disbelief that these officials possess the qualifications necessary for sanitary work.

In support of this view, Mr. Hastings referred to an opinion expressed by his late colleague, Dr. Symonds, of Bristol, that very different acquirements from those which are successful in the treatment of sickness were required in a Medical Officer of Health. He said that it was not easy to see how Professional men, whose time and energies were absorbed in daily toil, could qualify themselves by that study "of all sanitary questions" which the Commissioners recommend as desirable for Medical Officers of Health, and that, even granting Poor-law Practitioners the necessary qualifications, they were under the grave disability of private practice.

On this point Mr. Hastings quoted from a minute of the General Board of Health, in December, 1855, relating to the duties and qualifications of a Medical Officer of Health, the following passage:—

"It will be well to debar him from the private practice of his Profession; first, because the claims of such practice would be constantly adverse to those of his public appointment, the duties of which (especially at the times of epidemic disease, when his official activity would be most needed) private practice could scarcely fail to interrupt and embarrass; secondly, because the personal relations of private practice might render it difficult for him to fulfil with impartiality his frequent functions of complainant; and thirdly, because, with a view to the cordial goodwill and co-operation of his Medical brethren, it is of paramount importance that the Officer of Health should not be their rival in practice, and that his opportunities of admonitory intercourse with sick families should not even be liable to abuse for the purposes of Professional competition."

Mr. Hastings was of opinion that, if this reasoning be sound—and he stated that much evidence had been collected both in our own country and on the Continent in its support—it followed that the Poor-law Practitioners who depend on private practice for their livelihood are not fitted for the functions of Health Officers.

The opinions of Mr. Hastings on this subject deserve full and careful consideration. We think, however, that some of his views, more especially with reference to the employment of Union Officers as Officers of Health, are open to question.

In the first place, as regards the suggestion that the Officer of Health should be appointed for the county, we consider that in order to secure a perfect supervision of its sanitary condition, it is essential that the district placed under the care of the officer should not be of a very extended area.

The difficulty of meeting the cost of an officer for a more limited area might, in our opinion, be obviated by combining the offices of Union Medical Officer and Officer of Health. This opinion, moreover, is generally in accord with the Report of the Royal Sanitary Commission. The evidence taken by that Commission is of recent date, and comprises the testimony of nearly all the best available authorities on sanitary matters. By such an arrangement the duties imposed upon the officer would be sufficient to require him to devote his whole time to their performance, and to justify the payment to him of a liberal remuneration for his services. Thus the two chief conditions demanded by Mr. Hastings could be fulfilled—namely, the debarment from private practice, and the allowance of a salary adequate to secure the services of thoroughly efficient officers—and the objections in this respect urged against the appointment of the present Union Medical Officers as Officers of Health would be met.

Moreover, by the very nature of his ordinary duties, a Union Medical Officer has his attention directed to the worst cases of bad sanitary arrangements in the habitations of the poor, and to the existence of dangerous nuisances which otherwise might escape notice. Moreover, by virtue of his position, he could with less obtrusiveness, and with less chance of encountering obstruction, initiate proper remedial measures. We consider that, as regards the practical carrying out of sanitary reform, he would have a distinct advantage in this matter over a Practitioner who was simply Officer of Health.

We do not propose to enter into the question as to whether

or not the present officers engaged for the purpose of affording Medical relief to the sick-poor possess the necessary qualifications for the post of Health Officer. This point may, doubtless, be open to much controversy; but if the offices were combined, the increased remuneration offered would tend to secure the most efficient men, and thus, in respect of each office, a further advantage would be gained to the community.

DISINFECTION BY HEAT.

A CONSIDERABLE number of public stoves, or disinfecting apparatus, as they are commonly termed, have recently been erected in and about the metropolis, thanks to the now waning small-pox epidemic. Vestries and other public bodies which had heretofore resisted the introduction of these articles on the score of so-called economy, but in reality of expense, suddenly found that heating-stoves were matters of prime necessity, no doubt greatly to the advantage of the makers. We have, consequently, a right to expect from the Metropolitan Medical Officers of Health valuable information as to the use of disinfecting chambers, not only as regards the cost of their working and the amount of work done, but above all as to their efficiency, the temperatures attainable with safety to the articles to be disinfected, and those necessary to secure destruction of the infective material. We sadly lack this last information, for nothing tangible appears to have been done in this direction, that we are aware of, since Henry published his classical experiments in the year 1832. The papers in which that illustrious philosopher described his researches are models of accuracy and clearness, and deserve to be better known than they appear to be. It appears to be the general opinion nowadays, however, that greater degrees of heat are required for disinfection than Henry found to be adequate. We do not know on what precise grounds this change of opinion is based, but are inclined to think that it rests vaguely on the results of experiments made on the action of heat upon the lower forms of animal life—experiments made rather with the view of determining the point at which all life ceases to exist than the temperature at which disinfection is achieved. Henry found that whilst a temperature of 120° F. was inadequate, one of 140° F. was adequate to render the vaccine virus inert. A heat of 204° or 205° F. rendered articles of clothing that had been worn by patients suffering from typhus fever quite innocuous; and he proved that, by exposure to a temperature not below 200° F. during at least one hour, the contagious matter of scarlet fever is either dissipated or destroyed. In these experiments of Henry's, heat alone was the agent employed; but it is customary nowadays to disinfect by the aid of such substances as sulphurous acid gas and carbolic acid, as well as heat, the articles to be disinfected being simultaneously submitted to the actions of heat and of the other disinfecting agent. It is believed that there is an advantage in this, for it is known that the lower forms of life are more susceptible to the combined influences of heat and a disinfecting substance than to the effect of either agent employed singly.

Dr. F. Crace Calvert has recently published, in the *Chemical News*, some new experiments bearing upon this question. He finds that germ-life is not completely destroyed in the presence of moisture at 300° F., whilst it is destroyed by a temperature of 400° F., a temperature quite sufficient to materially injure cotton and other fabrics. From this he draws the conclusion that no beneficial results can be obtained by the employment of public stoves as a means of destroying germ-life and contagion. We demur, however, to this conclusion. In the first place, heat is supplemented by other means in disinfecting-chambers. Again, although bacteria, etc., withstand a high temperature, the germs of disease may perhaps be much less resistant to heat and other destructive agencies. Henry's experiments seem to confirm this supposition. It is scarcely credible that the persons he describes as wearing the cast-off and disinfected clothing of scarlet fever patients could have escaped the disease had the disinfection (by a temperature of 205° F.) not been complete.

THE WEEK.

TOPICS OF THE DAY.

DR. JOHN LOWE, of King's Lynn, Norfolk, has been appointed Medical Attendant to the Prince of Wales' Household at Sandringham.

The announcement that the complainants in the Hampstead Hospital case had exhausted their funds, and were not prepared to continue the services of counsel during the remainder of the inquiry, is one not calculated to cause surprise. These young men have already spent the large amount of £400, and have produced a mass of positive evidence in support of their allegations. It seems difficult to conceive, however, that the public will allow the matter to rest where it is. The *Daily News* of Thursday announced that the inhabitants of Hampstead, who met on Wednesday last, under the presidency of Mr. McCullagh Torrens, to oppose the Local Government Board in their proposed utilisation of the sheds now occupied as a Small-pox Hospital for the purpose of receiving cholera patients, commenced a subscription for the continuance of the necessary legal assistance to the complaining Medical officers, and funds from other quarters will in all probability be obtained. It is most undesirable, especially for the management of the Hospital, that anything should be wanting to a thorough investigation. It may be readily understood that the Assistant Medical Officers are not concerned to cross-examine witnesses who may be called on the other side, for the simple reason that no amount of negative testimony, from patients who did not think themselves ill-treated, can detract one iota from the positive evidence of the patients already examined—so far, at least, as that evidence has been the statement of facts, and has not been shaken in cross-examination. We reserve our comments until the conclusion of the case, but we cannot refrain from observing, *pace* Dr. Buchanan, that it is not usual in a well-managed Hospital for Medical men to have to carry about corpses, and that the inquiry, as we understand it, is not one into the question whether the Assistant Medical Officers stepped out of their ordinary routine of duty in order to supplement the shortcomings of the wardsmen and nurses; but whether the Hampstead Small-pox Hospital was well or ill-managed, and in this case especially whether a dead stinking body was left for several hours, by the persons whose duty it was to remove it, in the bath-room of one of the wards. At the time of our writing, the decision of the Local Government Board as to the application made to them, that they would assign counsel to the complainants for the cross-examination of the defendants' witnesses, had not been received. No counsel for the complainants was present at the inquiry on Thursday, on which day Mr. Williams finished his speech, and Mr. Wyatt, the Chairman of the Hospital, was examined.

The papers during the past week have contained an account of a terrible murder of two children, committed by their mother, an epileptic, and in all probability of unsound mind. The woman is the wife of a labourer at Garnscombe, near Barnstaple. She had been left in her house with her two children, aged respectively 3 years and 9 months. She was seen to come out of her house dressed in her best clothes, and to run down the road. Having before used sticks in walking, her appearance attracted attention. On the neighbours entering her house, the children were found strangled. She remains apparently in a state of perfect indifference. We should like to know how many murders are committed annually by lunatics at large.

The Council of the Royal College of Surgeons holds its first meeting on Thursday next.

Dr. G. V. Poore is a candidate for the vacant Assistant-Physicianey to the Charing-cross Hospital.

Miss Jex Blake's friends have subscribed £1000 to defray her expenses in the recent action with Mr. Craig. The lady announces that she intends applying £100 to found a Hospital for Women.

In the Health Section of the Social Science Congress at Leeds, Mr. Rawlinson, C.E., gave the meeting some valuable experience, obtained in the Crimea, on the subject of ventilation—

"They were probably aware that he had been sent out by the Government to the army in the Crimea; and out in the Crimea there was certainly room for an experiment upon the grandest scale. The mortality was something more fearful than had ever occurred with any army with which he had been acquainted. Our troops in the Crimea had suffered in the three months during the dreadful winter of 1854-5 at the rate of 700 per 1000—70 per cent.—during those three months. They saw starvation of various kinds—from want of necessary provisions and from actual exposure to the elements. The remedial measures that were taken in the first instance were, to send out a number of huts from England, at a very great cost, in lieu of tents; but these wooden houses had no sooner been inhabited than they became fever dens and pests of the very worst kind. And for this reason no instructions were given to provide isolation of each hut from the subsoil and to provide ventilation. The side walls were eight feet high, and the roof was covered with patent felt, which was water-proof; but, unfortunately, it was air-proof too, and, there being no arrangement for any ventilation at the floor, and the huts being arranged for twenty-five men, one-half of the occupants were down in fever, and sometimes it turned to putrid fever. There were some regiments with only one-half of their strength. The 79th was down with fever, and a most striking condition of affairs was found out in comparing the position of the 79th with that of the 42nd Regiment. Lord Clyde had gone with him for the first inspection, and he asked to be told the difference between the two regiments, there being very little fever among the 42nd. Upon investigation he found that the encampment was on a steep mountain-side, the greater part being oolitic limestone and dry, but there was a broad band of clay underneath. The 79th Regiment was on this band of clay, and the persons erecting the huts had excavated a level place into the bank of the hill-side, and, consequently, at the back it was three to five feet in height, sloping down at the sides; and no provision being made to keep the earth from the sides of the huts, they were like inverted bell-receivers, with the men inside and the damp soaking in under the floor. The 42nd, on the other hand, were on the rock, and they had been compelled to raise a false floor for the huts. He advised the shifting of the regiment, and from the time that it was shifted the new type of disease ceased, and only the men had to recover who were originally down. The huts, however, on this band of clay were not taken down; the quartermaster forgot that they were empty. The 32nd Regiment came from India and were quartered in them, and when they had been there fourteen days there were thirty-two cases of cholera. The wretched huts were still kept there, and a brigade of artillery having been sent into them, within thirteen or fourteen days there were thirty or forty dead with cholera. All this was simply want of ventilation and of proper sanitary provision."

VACCINATION DOTTINGS.

In Islington last week the vaccinations were 138, the revaccinations 68. Permission was given by the authorities to prosecute three persons for neglecting to have their children vaccinated. A bill has been issued announcing a "grand concert" to be held at Barnsbury Hall, in aid of a man named Jones, whom, it was stated, the Guardians had prosecuted under the "iniquitous Vaccination Act." A dissenting minister at Southampton has been fined 20s. for neglecting to have his child vaccinated. He pleaded "conscientious motives," and the "fact," told him by a London Physician, that the abscess in the Queen's arm was the result of imperfect vaccination.

MEDICAL SCHOOLS OF PARIS.

Medicine, like all other professions and callings in Paris, has suffered materially from the late war. It was found, at the opening of the Schools and Colleges of Medicine last week in Paris, that the number of "entries" had diminished to a very great extent. One of the reasons assigned for this falling off is, that parents in the provinces are unwilling at present to send their sons to the capital. But there can be little doubt that the depressing influences of the war have had a marked effect in producing the decrease.

HEALTH OF NEWCASTLE.

The rate of mortality in different towns and rural districts must, certainly, be dependent on causes more or less removable. In well-managed districts, in which sanitary laws and regulations are carried out, the rate of disease and mortality is always less. No doubt changes of temperature and other atmospheric influences, conjoined with the prevalence of epidemic diseases, raise the death-rate, but these are not sufficient to account for the vast differences observed in various localities. At the present time the prevalence of sickness and the rate of mortality are very remarkable. The Registrar, Mr. Bulleck, says—"The mortality during the month of September was greater than it has been for some years. The number of deaths was fifty-six, giving an annual death-rate of over forty-three per thousand. No less than thirty-four were children under 3 years old. Fourteen of the deaths were from diarrhœa, five from scarlet fever, and five from measles." At the last meeting of the Board of Health of the town, the following interesting discussion took place:—Mr. Arthur Leech asked if the Medical Officer could give any opinion as to the very high death-rate of the borough; was it in any way owing to a bad sanitary state of the town, or something in the atmosphere of a detrimental kind? Dr. Gooday said that he attributed the unusually large number of deaths among children to bad and improper nursing. It would be found that the deaths were those of children amongst the very poorest class, and the sickness prevalent was chiefly among them. No deaths had occurred among the children of rich people. He had himself seen Irish children who were allowed to run about the streets when they were suffering from scarlatina and measles. He knew of no nuisances, and nothing in the sanitary state of the town to account for the number of deaths. He considered there was something in the atmosphere all over the world, causing cholera in some parts, and small-pox, scarlatina, and the potato-blight in others. Mr. Bayley said that a gentleman who stood high in the Medical Profession had attributed the prevalent sickness to a bad sanitary state of the town. He therefore asked the Medical Officer if there were any sewers or nuisances of any kind which would affect the atmosphere injuriously. It was certainly extraordinary that the death-rate of the borough should be higher than in large towns, where there was so much more overcrowding and less fresh air. The sickness in the town was not confined to the poor; many children of persons in a better position, and where every attention was paid to cleanliness, were suffering from measles and other complaints. Dr. Gooday said that the prevailing diseases were such as children were liable to and had *to go through*, and which *could not be prevented*. What was wanted was that proper attention should be paid to them. They wanted warmth, and comfort, and care. Mr. Leech said that the death-rate in some of the large towns was about twenty per thousand, whereas in Newcastle it now reached forty-three per thousand. That was a most unsatisfactory state of things. In his opinion steps should at once be taken to search out the sanitary state of the borough. He thought they were really bound to do something. Some time ago he proposed that a thorough inquiry should be made, and that was what they would have to come to, or the town would acquire a character

of a very bad kind. Mr. Bayley said that the Sanitary Committee had really done all it could, and, as chairman of that committee, he might state that if anything could be pointed out to improve the sanitary state of the town, he would see that it was at once attended to. The Medical Officer's report was received. A notice to remedy the nuisance alleged to be caused by the Newcastle sewage tanks, from the Stoke Improvement Commissioners, was read. The Surveyor said that the tanks had been deodorised before the notice was received.

ASSAULT ON A MEDICAL STUDENT.

A YOUNG gentleman—Mr. George M. Whitehead, of Preston, a student at St. Thomas's Hospital—when returning home on Sunday evening, the 24th ult., soon after eleven o'clock, from Hampstead, was, when within three minutes' walk of his own door, suddenly confronted by a man, who rushed out from behind a dead wall, and, with an oath, and the exclamation, "At length we have met!" aimed a blow at his breast, which, however, Mr. Whitehead fortunately received with his left arm, but at the same moment felt that he was stabbed. The knife clove right through the fleshy part of the forearm, and through coat, waistcoat, and underclothing, just puncturing the breast, but fortunately was not long enough to penetrate further. Mr. Whitehead, who is an athletic young man, at once collared the would-be assassin by the throat, and brought him down on his back, where he held him a minute or two with his knee, while he attempted to get hold of the hand holding the knife, hoping, also, that the noise would attract the notice of some passer-by. Nobody, however, came, and in the struggle the fellow got his right arm at liberty, and struck out, violently wounding Mr. Whitehead twice in the knee-joint severely. Mr. Whitehead is a diligent student at St. Thomas's Hospital. He is much respected, both by the staff and his associates at the Hospital, for his great amiability and sterling character. We are glad to hear from recent accounts that Mr. Whitehead is progressing most satisfactorily. The wounds are nearly all healed.

MELBOURNE UNIVERSITY.

GREAT dissatisfaction prevails in some quarters respecting the conduct of the Senate of Melbourne University in refusing to admit *ad eundum* certain gentlemen who were possessed of degrees obtained in the United Kingdom and at the University of Sydney. The authorities of the University of Melbourne say—"The applicants for admission *ad eundum gradum* had sent home money and purchased degrees in the United Kingdom, and, having imposed on the University of Sydney by these purchased degrees, they had obtained degrees from that institution without examination; and that by these degrees, purchased in this manner, these gentlemen were now endeavouring to gain admission into the Melbourne University under false pretences." Strong language and serious charges! It is incumbent, we think, on the authorities of the Melbourne University to mention the names of the British universities from which degrees were obtained simply "by money." Such institutions should be known, in order to be degraded and denounced as "mockeries, delusions, and snares."

A GOOD EXAMPLE.

ABUSE of public Medical charities is too commonly regarded as a venial offence; but it is as distinctly a fraud on the subscribers to Hospitals or ratepayers of unions as applying for bread or meat under a false plea of destitution. The evil is "too many-headed" to be dealt with in all cases successfully. Much, however, may be done to check it if proper steps be taken for that purpose. A move in the right direction has been taken by the Guardians of St. Olave's, Southwark. Having found that persons in comparatively good circumstances have been obtaining medicine from the two dispensaries recently opened in the Union, the Guardians have ordered that bills be printed and circulated cautioning persons who are not destitute from applying for Medical relief, and it is their intention to prosecute in the first case of fraud which is detected.

ACTION OF ALKALIES ON PUS-CORPUSCLES.

"PUS-CORPUSCLES are mainly composed of albuminoids, and when treated with a solution of common salt, they are converted into a viscid gelatinous mass." To this announcement, from a memoir in the *Med.-Chem. Untersuch.*, noticed in the *Medical Times and Gazette*, September 23, p. 383, a correspondent directs our attention, pointing out that an incorrect impression, both scientifically and historically, may be conveyed, unless the facts, as long since well known in England, be stated. It would seem that the Germans have now discovered that common salt renders pus viscid; whereas the fact is that most alkalies and alkaline salts have this effect on all fresh primary cells of mammals, and probably of lower animals. In Professor Gulliver's second lecture at the College of Surgeons, reported in the *Medical Times and Gazette*, August 23, 1862, page 187, we find the following observation:—"The pale globules of the blood lose their shape permanently, and form a thick ropy compound, more or less transparent, when mixed with solutions of alkalies and their salts—a property which belongs to fresh and free pale cells generally. This ropiness or inspissation, produced by sal ammoniac, was considered by Mr. Hunter and Dr. George Pearson as the criterion of pus." And the same action of alkalies and their salts on the corpuscles of the thymus fluid, of lymph and chyle, and of pus, has always been described experimentally in England, as may be seen—*e.g.*, in the Sydenham Society's edition of Hewson's works, published in 1846, and in the English version of Gerber's "Anatomy," which appeared in 1842.

NAVAL MEDICAL SUPPLEMENTAL FUND.

AT the quarterly meeting of the directors of the Naval Medical Compassionate Fund, held on the 10th inst., Sir Edward Hilditch, Inspector-General, in the chair, the sum of £77 was distributed among the various claimants.

FROM ABROAD.—PROGRESS OF CUNDURANGO—THE ACADEMY OF MEDICINE AND INTEMPERANCE.

THE progress of the last new charlatanism in relation to small-pox cannot be better stated than in an article which we transcribe from the *New York Medical Record* of September 15:

"Those who shrewdly surmised that the official agitation of cundurango in the State Department at Washington was a puff preliminary to private speculation in the mysterious virtues of this plant, have had their prediction fulfilled sooner than they could have expected. It was, perhaps, fitting that the only person who has succeeded in discovering any efficacy in the administration of the drug should vindicate his superior acuteness by getting up a 'corner' therein; and, accordingly, Dr. Bliss has philanthropically abandoned the emoluments of private practice in the national capital, and devoted his energies to the diffusion of cundurango in New York, at the moderate price of $100 per pound. It is to be regretted that the efforts of the Government to promote the success of Dr. Bliss's enterprise have been to some extent frustrated by the obstructive jealousy which notoriously governs the Medical Profession—the Physicians who were requested to buy cundurango having unanimously reported that they found it entirely inert, and analytical chemists having wickedly omitted to detect in the samples sent them any principle which could be supposed to possess a curative action. It is still more unfortunate that of the six patients treated with the new and infallible remedy, whose cases have been reported in the Medical journals, four have died before they were quite cured. But these, after all, are small matters from a commercial point of view, and Dr. Bliss is able to point triumphantly to the fact that two of his three recorded patients survived the ingestion of numerous doses, and would, perhaps, have recovered altogether if it were not that his stock of the drug was

exhausted at the most inopportune moment. He is, moreover, happy in the privilege of referring in his printed circular to Vice-President Colfax, whose opinion on any question of pathology or therapeutics must, of course, be accepted as conclusive. Having been at the pains of sending his partner all the way to South America to buy up all the cundurango wood that could be procured, it is natural that Dr. Bliss should attach a high value to a substance of which he alone appreciates the full merit, and that he should decline to sell less than twenty-five dollars' worth at a time, in order that the afflicted poor may be deterred from buying it in inadequate doses. The petty prejudices entertained by the Medical Profession generally against advertisements of a panacea for 'cancer, scrofula, and other blood diseases'(a) will not, we are sure, be allowed to carry weight with an enlightened public when opposed to an official correspondence between the Secretary of State and our consul at Equador; and the adverse reports of proverbially ill-informed army Surgeons, as well as the bigoted exclusiveness of the 'regular' Physicians in Washington, will be attributed to their proper cause—envy of the superior attainments of a gentleman who has forestalled his rivals in a great discovery, and who naturally wishes to turn this discovery to the best advantage."

It having become a very prevalent notion in France that many of the late calamities that have afflicted that country are intimately connected with the spread of the practice of drinking, both the Legislature and the Academy of Medicine have been turning their attention to remedial measures. M. Théophile Roussel, in his double capacity of Physician and Deputy, has brought the subject before both bodies. To the Assembly he suggested a long series of repressive measures, which have been favourably received by the Bureau to which they were referred; but we imagine the Assembly has too much practicable work cut out for it in various directions to allow of its attempting the difficult task of shaping these propositions into legislative measures, and at present they may be considered pretty much in the position of documents ordered to lay on the table of the House of Commons. He has got a step farther in the Academy of Medicine; for there M. Bergeron, the Reporter of the Committee, has prepared a voluminous *Avis au Peuple*, "On the Dangers incurred by the Abuse of Alcoholic Drinks." This, in fact, is almost a pathological treatise, in which alcohol is tracked through the economy as it pursues its ravages on the various organs, the whole catalogue of ensuing maladies being set forth. Those who are aware of the labour, expense, personal exertion and example, enormous combined action, and extraordinary amount of speechifying, whether of the demonstrative or persuasive varieties, that have been required to excite the public opinion that exists upon the subject in this country, must marvel at, and almost envy, the confiding simplicity of our *confrères* in believing that any appreciable good can be achieved by inditing and circulating throughout the country this wordy pamphlet, with its thirty-three elaborated—and often, to non-professional persons, unintelligible—propositions. However, the Academy, we believe, has the good sense to see that the distribution of this diffuse production would be useless, inasmuch as it never would be read, and intends to cut it down; but if even it does succeed in inducing its perusal, a very slight step in advance will have been gained. One of the critics aptly observes—

"M. Bergeron has but slight hopes of arousing the moral sense and the sentiment of human dignity. 'We must,' he says, 'resign ourselves to rely solely on fear, and constantly place before the eyes of all a true picture of the numerous and varied ills produced by drunkenness. None of those who in future become the victims of alcoholism must be able to invoke as an excuse their ignorance of the danger.' Now, does this ignorance really exist? We must be allowed to doubt it. The man who falls into drinking habits is perfectly aware of the danger to which he exposes himself, for he has no lack of examples before him. He may not be aware of the manner in which alcohol operates on the economy, and the various diseases attributable to it; but he knows in a general way that its abuse destroys the appetite, paralyses strength, brutalises, and gives rise to incurable disorders. Question the drunkards in our Hospitals, and you will find that they are aware of the dangerous character of their habits, and at the very outside only seek in some sort to lessen their own culpability. It is rare for them to admit the use of the most noxious drinks, such as absinthe and certain alcoholic mixtures, etc.—they are aware that these are veritable poisons, and that indulgence in them only takes place under conditions of a moral decadence which as yet they deny. The temptations to which they succumb are not those which fear of disease suffices to restrain; and at first illusion is so easy, while at a later period, when disease supervenes, its origin is admitted with difficulty. An old inveterate drinker, who has resisted during long years the effects of his habits, is able to assure twenty drinking novices."

(a) Dr. Bliss is too knowing a Practitioner to confine the operations of his remedy to a disease like small-pox, only of occasional prevalence.

THE HAMPSTEAD HOSPITAL INQUIRY.

Twelfth Day.

On Thursday, October 5, the Local Government Board's Commissioners, Mr. Henley and Dr. Buchanan, resumed the inquiry into the management of Hampstead Hospital. The Asylums Management Board were represented by Mr. Montagu Williams and Mr. Humphreys, instructed by Messrs. Payne and Hammond; and the complaining late Assistant Medical Officers (Messrs. Greaves, Kynaston, and Aikman) by Mr. Collins and Mr. Bucknill, instructed by Messrs. Burton, Paine, and Hart.

The Chief Commissioner, on the opening of the Court, said that the Hospital books should be placed on the table for the reasonable use of both parties, but the books must not be taken away. He then appealed to Mr. Collins whether, since the evidence of Mr. Aikman (one of the Assistant Medical Officers), this inquiry had been carried any further. A mass of evidence certainly had been produced by Mr. Collins' side, but one witness was merely a repetition of another. It might be said by Mr. Collins' side that they wanted to show the extent to which the matters complained of had gone, but this, they should remember, would prove to be playing with a double-edged sword; for it could not be expected that the managers who took charge of these Hospitals under a very great emergency last winter, and were assisted by a number of benevolent and devoted ladies and a large body of officers, would do otherwise than bring a great mass of rebutting testimony to refute these serious charges, for these things could not be passed by unchallenged, and it was for Mr. Collins to say whether he was prepared to wait to cross-examine all the witnesses the managers might consider themselves bound to bring. Beyond this it was for Dr. Buchanan and himself to consider whether they, for their part, were justified in loading the depositions with a mass of matter a great deal of which really had nothing to do with the points at issue. At the same time, it was felt by his colleague and himself, as everybody must feel, that the character for veracity of these young men, the complaining Assistant Medical Officers, who were just starting in life in an honourable profession, had been seriously impugned, particularly as animus was imputed to them in taking the steps they had. Under this consideration, he, speaking for his colleague as well as for himself, had allowed great latitude to their side in presenting testimony in support of the charges made, but beyond this they could not go.

Mr. Collins said he had felt for some time that the witnesses lately called had spoken only to the same facts deposed to before; but the late Assistant Medical Officers, who, he mentioned, were conducting these proceedings at their own cost and at enormous expense, felt some difficulty in stopping evidence of this character without such an intimation as had now been given—for the other side had stated that three witnesses could be produced to speak for them for every one on this. He was not prepared that day to present the other two late Assistant Medical Officers, for he had other ex-patients to call, but he would present them on the next meeting.

The witnesses examined to-day were—John Bryant, chair-maker; Albert Ferguson, painter; a young woman named Kate Black; William Henry Clicker, a tailor; and Smith, a carpenter. These had all been patients of the Hospital.

Bryant corroborated the testimony of other patients as to the dirt, insufficient clothing for convalescents, and the bad character of the food.

Ferguson gave evidence as to filthy and damp linen being supplied to him, as to the bad character of the beef-tea, and as to the kind of force used to restrain a delirious patient. "He was tied down with the assistance of six convalescent patients, with three sheets, and the nurse, who was stout, sat upon his head."

The young woman, Kate Black, who seemed of a respectable class, gave general evidence as to being put into a dirty bed, and as to the foulness of the linen, and the unkindness of a nurse in not attending on patients; but she stated that this nurse was discharged. Then she deposed to instances of personal chastisement she had seen by nurses upon patients, these actions being "slaps" for dirtiness; and one of the persons so chastised was Letitia Gibbs. One person—a woman who was very ill—begged the nurse, the witness said, to be kind to her, for her time was not long in this world, and the reply made by the nurse was, "No, old girl, you will be off by the morning." The nurse who said this was named Price, and the woman spoken of did die in the morning.

The witness, questioned by Dr. Buchanan, said the nurses were not overworked, for they got others to do their work. She had seen the nurse feed patients, and feeding-bottles were used by some. With the exception of one night, when the nurse would not attend to her, witness had plenty of milk.

Clicker deposed to the insufficient supply of milk; and Smith to having been put into a bed which was claimed by another patient. He also said that, having been employed when convalescent in different parts of the Hospital, he found there was a different sort of meat supplied to different wards.

Thirteenth Day.

Henry Drake Palmer, M.R.C.S.. etc., of Nayland, Suffolk, called by Mr. Collins, stated that he went to the Hsmpstead Hospital, as Assistant Medical Officer. from April 13 until the arrival of Mr. Aikman on May 1. He had charge of No. 3 Ward for the female adults; No. 7, the children's ward; and No. 12, the isolated ward. There were sixty-four or sixty-six children in No. 3, and there were two nurses of a day and one of a night. One of the day nurses had been a patient, but he did not know whether she was on the staff at the time. He had seen delirious children tied down, and one he had seen tied down with a sheet twisted round its body. This was a practice he should not approve or order, and he told the nurse it was a great shame, to which the nurse replied that unless she did tie them down she could do nothing, for several would be getting out at once. Sister Agnes was the sister of the ward, but he could not remember that he had made any formal complaint to her. He had complained of the practice to all the attendants; still, he had shown the nurses a better mode of tying down, by securing the corners of the sheets to the four corners of the bedsteads, and he afterwards found his plan partially adopted. The supply of milk was often short in quantity of a night. The children were decidedly not so clean as private patients would be, and he saw vermin and "nits" in the heads; this was very common in the ward. He went on to relate that he pointed out a treatment for the heads, and he followed the practice he had seen in his experience at Guy's Hospital by recommending white precipitate ointment. He described finding a child dead in bed one night on going his rounds, and he said he called the night nurse's attention to it. She replied to him that she had only just come on duty, and did not know anything of it. The child was very ill in the morning when he saw it, but he was astonished to find so speedy a termination of the case.

By the Chief Commissioner: He could not remember the child's treatment, or what he had said to the day nurse. He would not trust his memory as to what had been done about it, and he had made no notes of what had occurred in the Hospital.

In reply to further questions by Mr. Collins, the witness said he had seen a woman, who was maniacal, strait-waistcoated without his orders, and she was raving continually for parts of two days and one night, disturbing, as he was told, the whole of the people in the ward. This was in the female adult ward, and it occurred when the ward was full of acute cases. It was impossible for the two day nurses in this ward and the one night nurse to attend the ward when all the beds were full of acute cases.

Examined by Dr. Buchanan, the witness said that in the children's ward he commonly saw both day nurses in the ward together during the day. The night nurse went round with him on his night visit. He had known many delirious patients in the children's ward at one time, and the nurse had told him that one in particular was difficult to keep from the fire. He thought he might say that he had seen twelve children wandering in their heads, and they certainly would have come to harm if permitted to get out of bed. He had not seen any injury through tying down. He thought that a delirious child, even if tied down in the way he had recommended, would fret more than if it were one of three or four children wandering about the floor. He thought undoubtedly that the vermin must have come in with the children, but he did not "order" on the patients' cards the treatment of their heads, but should have left it to the nurses to use the remedies for the destruction of vermin. He did not remember whether carbolised oil was in use, and he never ordered it for heads. He ordered it for something else, and he thought that, being part of the treatment, he should put it on the head-card. He should have ordered white precipitate ointment for the heads in small-pox. He knew this was a mercurial ointment, but he should not have used it indiscriminately. The condition of small-pox patients was such as to lead to the multiplication of these vermin. Certainly, as this ointment could not be used in all cases, and as the condition of the patient was such as to lead to the increase of the evil complained of, the amount of this evil he saw in the Hospital was excusable—at least, to a certain extent. Carbolised oil would have been a better preparation than white precipitate, he thought, but he had never used it. At Guy's the students did not dress bedsores, and this was left to nurses. Undoubtedly bedsores were often of danger to the life of a patient. At Hampstead, while he was there, it was left to the nurses to dress bedsores. At Hampstead the Hospital was under a paid superintendent, with paid juniors under him, and thus differed from general Hospitals. The primary object of those juniors would be, in witness's judgment, the Medical treatment of patients suffering from small-pox. There was a difference between the view which should be taken of the duties of a Medical Assistant Officer at Guy's and a Medical Assistant Officer at Hampstead, for at the one the Medical officer was learning his Profession, in the other he was a Professional man. The Medical duties in the two cases he agreed were completely different. Even seeing that the dressing of bedsores was a thing which affected life, he still did not see that the difference between the two institutions was a reason why the paid officers at Hampstead should act differently to the unpaid Medical officers of Guy's in regard to dressing and looking after these bedsores. This duty of dressing bedsores was always left to nurses, and he regarded the junior officers at Hampstead as being in the position of visiting Physicians, the nurses being regarded as competent to perform this duty. Asked whether he would not have this opinion modified by the fact that at Guy's there was a body of trained nurses, while there were only half-trained nurses at Hampstead, he said he was not aware that the Hampstead nurses were not trained, though he knew some were convalescents. At the same time he desired to say that he did not think it *infra dig.* on the part of a Medical officer to dress a bedsore, and he thought a Medical officer might superintend such a case. Bedsores might be generally avoided if properly looked after; but it was not the duty of the Medical officer to strip the patients. It was, however, certainly the duty of the Medical officer to warn the nurse to look after bedsores. He should be greatly surprised to have a bedsore reported to him which when shown to him was three inches in diameter, and over the sacrum, and with a grey slough (the case of the child Stokes). That would be a neglect on the part of the nurse, for the nurse should have reported this earlier.

By the Chief Commissioner: The use of white precipitate would be improper at certain stages, and would be likely to lead to serious results. Pressed as to whether, having this before his mind, he would still say that the ointment should be left with nurses in a small-pox Hospital, the witness said, after giving several answers, that such was the case at Guy's, and he thought Sisters and nurses should be so trained as to use these remedies. The witness was further questioned by Mr. Collins. and said that the Sisters at Hampstead were regarded as above the nurses, and, coming as paid officers, between nurses and Medical officers, as taking some of the responsibility off the Medical men. He never heard Dr. Grieve order any treatment of the children's heads. He was told by Dr. Grieve that the ordinary diet was considered sufficient for all cases, and that witness had no power to order the full diet. Did not remember having any special directions about bedsores, the use of carbolised oil or precipitate, from Dr. Grieve, for witness was, of course, supposed to be competent.

Cross-examined by Mr. Hammond (in the absence of Mr. M. Williams), he said he always understood that the Sisters were

paid, and believed so from seeing their names in a book with sums attached to each name. He was aware that the Government would not allow of unpaid services in the Hospitals, but he did not know that the money put down to their names went to the Sisterhood at East Grinstead, and not to the Sisters themselves. He never saw delirious small-pox patients until he went to Hampstead. He was aware that patients were restrained at general Hospitals, and that the practice was approved by eminent Physicians. These agreed that there must be manual or other restraint in delirious cases, and manual restraint was as likely to break the pustules in small-pox patients as other restraint, especially if there was much struggling; but sometimes patients could be soothed with quietness. He had no power at Hampstead to order a watcher to watch cases. He never complained, because he was "never told to complain"; and he never asked for and was refused a watcher. He never made any written remark about the want of more assistance in nursing. He considered that a good diet was one of the most essential parts of the treatment of small-pox patients. He ordered "low" diet for acute cases, and "ordinary" for convalescents. He could not remember what constituted these diets. He would not trust himself to say what were the articles in the diet. He ordered the diets, but it was not part of his duty to see that the patients had their diets. Perhaps it was his duty to complain if he saw the diets were short; but he never complained, except to the nurses, because his colleagues complained without redress.

The Chief Commissioner: Did you hear them complain?—No; but it was the common topic of conversation between us of their complaints.

A considerable discussion ensued with regard to the "diets" in the Hospital, and it transpired that the "low diet" was altered twice between December and June. The diets were read over, and he said it was the first time that he knew that children were "on" the same low diet as adults. Questioned on the ordinary diet as given in the dietary, he said it was liberal, but he would not say whether or not it was equal to the full diet of general Hospitals. The dietary tables as put in showed the "ordinary diet" was, for breakfast, one pint of coffee, four ounces of bread, half an ounce of butter; for dinner, eight ounces of uncooked meat, four ounces of bread, twelve ounces of potatoes, half a pint of beer; for tea, one pint of tea, four ounces of bread, half an ounce of butter; convalescents having half a pound extra bread per day and stew or soup for supper. "Low diet" was one pint of tea, one pint of milk, one pint and a half of beef-tea, twelve ounces of bread, one ounce of butter, quarter of an ounce of arrowroot. This had subscribed at the foot, "Approved by the Poor-law Board." The only alterations in the dietary were in "low diet." The first after March 6 gave in the low diet an extra pint of tea a day and an extra half-pint of milk a day. The alteration of June 18 was a reduction of a half-pint in the beef-tea, and the milk allowance each day was increased to three pints.

In answer to Dr. Buchanan, the witness said the "Sisters" at Guy's were promoted nurses of experience, and were thus different from the Sisters of Hampstead.

The Chief Commissioner then informed the witness that his theory that the Sisters and nurses shared the responsibility of the Medical man could not for a moment be admitted. The Medical man was wholly responsible for the care of his patients under his charge.

The witness wished to qualify his statement; but

The Commissioner said the statement was strengthened by the view which the witness took of his duties, in regard to an ointment like white precipitate being left with nurses for use at their discretion. It could not be too widely known that such a view was not warranted by the law governing these Hospitals.

Mr. A. E. Kynaston, one of the three who had signed the letter to the *Times* was then examined. He deposed that he met Dr. Grieve on the Continent during the war, and on his recommendation took the office of Assistant Medical Officer at Hampstead on January 26. He at first had fifty beds, but subsequently, as the Hospital increased with the epidemic, he had 130. In general he paid two visits a day to the wards, sometimes more. With regard to the first charge in the letter in the *Times*, that of the tying down, he had seen this frequently in practice. At first he did not know much about it, not knowing anything of small-pox; but he soon afterwards learnt that the practice was objectionable, and he complained to the nurses, ordering them not to tie down. The answers he obtained from Sisters and nurses were, that they could not go on without it; and he complained to Dr. Grieve of the practice as well as of the insufficient number of nurses. Dr. Grieve considered the nurses were sufficient in number. No more nurses were obtained as a consequence of the complaints, which on this point were constantly being made. He remembered a man who, in the beginning of July, had the disease very badly, with a most copious eruption, in a rambling but hardly delirious condition, and with a tendency to roll out of bed. This man he found tied down with his wrists fastened to the bedsides with a pocket handkerchief or bandage, and his ankles the same, both ankles and wrists coming in contact with the iron of the bedstead. Witness unfastened the man, and endeavoured to find out who had tied him, but in vain. The outer skin of the ankles and wrists of the man was rubbed off, and the man died the next morning. The rubbing off was by the bandages. He had, with regard to the second charge in the *Times*, seen strait-waistcoats used, and, with two exceptions, he had always ordered them to be taken off. The nurses when told not to use them said they could not get on without restraining the delirious patients. He was away from the duties of the Hospital from early in April until May 25, having caught scarlet fever in the discharge of his duty, and when he came back he found a practice in vogue of meeting Dr. Grieve officially every morning. At this time he and his colleagues used to make complaints, and Dr. Grieve said he was responsible for the number of nurses. With regard to the third charge in the *Times*, the quantity of milk was generally short. At his first going each patient had an allowance of a pint of milk, but they did not get it. An increase of half a pint was given through the complaints, but the supply was invariably short, and he had complained that even a pint and a half was not sufficient on low diet. He told Dr. Grieve that if he doubled the dietary the mortality would be halved, and though Dr. Grieve said it was sufficient he altered it afterwards—within two hours—and the low diet was certainly improved. Every morning there was some complaint made to Dr. Grieve by the Assistant Medical Officers. He did not like the beef-tea supplied when he had it during his attack of scarlet fever.

Dr. Buchanan: Did you ever find a fever patient who did like beef-tea?—No; I have not found they do as a rule.

The witness went on to speak with regard to the fourth charge made in the *Times*, which charge was—"On making the morning visit we have been informed by the nurse in charge that the patients of her ward on low diet have been kept without food of any kind from 7 a.m. till 3 p.m." He said Nurse Meredith had told him one morning that, and he made her repeat her statement before Mr. Aikman. He then went into the fifth charge in the *Times*, that of the insufficiency and unfitness of food, and in support of this he said that on one occasion when Dr. Grieve had his attention called to the quantity supplied for a ward, he said it was short. The meat looked coarse, and complaints were frequently made by patients, principally of toughness, but once of tainted meat. He did not himself test the statements regarding the insufficieney. He knew nothing about the sixth charge in the *Times*, the finding of dead children in bed, but he supported the seventh, regarding the dead body being kept in the bath-room for several hours, as described by Mr. Aikman. He then proceeded, speaking on general subjects, to say that Dr. Grieve had told the Assistant Medical Officers they were not to report to the Committee, that the Committee would not listen to them.

Dr. Buchanan: Did he really tell you that you were not responsible?

Witness: He did; and I then asked him, if such were the case, who would be responsible if I maltreated a patient and caused death, and who would be hanged for it. He said he did not know. The witness proceeded to state that on this being pressed on Dr. Grieve, as to what the public would think of things of which complaints were made, he laughed, and said that he could defend himself before the public.

An endeavour was then made to enter into the circumstances attending the "dismissal" or "resignation" of the witness and his colleague, Mr. Greaves, and the Commissioners urged that all personal questions should be as far as possible left out of the proceedings.

The inquiry was adjourned till Monday.

Fourteenth Day.

This official inquiry was continued on Monday, October 9, at the offices of the Metropolitan Asylums Board, Norfolk-street, Strand, by Mr. Henley and Dr. Buchanan on behalf of the Local Government Board.

Mr. Kynaston, one of the three Assistant Medical Officers, recalled and examined by Mr. Bucknill, said there was an insufficient supply of milk during the night throughout the time

he was Assistant Medical Officer at Hampstead, even when the low dietary was heightened. In July, No. 4 Ward was for a fortnight without an under-nurse. He also remembered Mr. Greaves telling Dr. Grieve that he had had no under-nurse in No. 9 Ward for a fortnight. Dr. Grieve said he was utterly ignorant of the fact, and he sent one shortly afterwards. This was some time in April. He had noticed the dirty state of the linen—dirt from use and otherwise—and had complained to the nurses about this. It was a general thing for the linen to be in this condition, but in No. 4 Ward the linen was perhaps worse than anywhere else. He could not say whether or not stains on sheets were made by the persons in the beds or by previous occupants.

The Chief Commissioner remarked that he should have thought that such matters would have struck the witness, he being the Medical man visiting the patients and knowing their condition.

The witness said he did not remember any instances of patients in sheets stained by others, but he had known patients being put into beds without the linen being changed. He then proceeded to speak of having told Dr. Grieve that the cording of the beds wanted mending, and Dr. Grieve replied to him that that was not witness's business, for if the patients fell through and died upon the floor he was not responsible.

The witness was then taken over the daily work in the Hospitals described before by other witnesses, and he stated that Mr. Aikman went his night rounds first, witness and Mr. Greaves going later and irregularly, sometimes as late as eleven o'clock, and this was to test the conduct of the night nurses, who, witness considered, should not be allowed to expect the Medical man at one set time. Dr. Grieve complained of this going late, and the object witness had just given was stated as the reason to Dr. Grieve for being late. The assistant Medical men were always accompanied by the night superintendent of the nurses on their visits. Sometimes there was dispensing to be done as well at night, and the Assistant Medical Officers were sometimes called up at night to attend to cases.

Cross-examined by Mr. M. Williams, the witness said he had come straight from Guy's Hospital, where he had held all the appointments, including that of dresser. He had had no experience elsewhere. He was present when Mr. Drake Palmer was examined on Friday, and did not quite agree with that gentleman's views, that the Assistant Medical Officers at Hampstead stood in the same position as visiting Physicians to General Hospitals. He allowed that he should consider it was the duty of the Assistant Medical Officer to see everything was done which could be done to aid the recovery of patients. He knew the Hampstead Hospital was an institution under the Poor-law Board. He had heard of Dr. Bridges, the Medical Inspector for the metropolis of these Hospitals, but he did not know what he was until lately. He knew of the Committee of Management of this Hospital. He remembered seeing Dr. Brewer, M.P., in the wards of the Hospital, but he never spoke to him. He did not think he had seen Surgeon-Major Bostock in the wards; but he had seen that gentleman in the Hospital. He did not remember seeing him visit witness when witness was sick. Witness had seen Mr. Wyatt in the Hospital frequently, and on a few occasions he had conversed with him. He had gone a little way into a ward with Mr. Wyatt once. Asked whether he was treated with kindness by the Hospital authorities when he was ill, and whether he was not then allowed to have champagne, he said he believed the Hospital paid only for a small quantity of what he had had, and he was three days getting a bottle of port wine. He agreed that the object of low diet was to supply nutriment and to slacken thirst, and he agreed that the low diet was equal to six pints of fluid nutriment for twenty-four hours. He was ready to allow that was not a bad diet; but, asked to compare it with other Hospitals, he said he believed others were unlimited—it was so at Guy's. There was a diet table at Guy's, but they "did not stick to it there." He had no experience of any other. He agreed that diet was mainly the treatment in small-pox, but he did not know that certain things were in the dieting. He did not consider it his duty to be present when the dinners were served, so as to see if the patients were treated properly—that was not his duty. He did not inquire whether the people had stew for supper, and he did not remember seeing stew for supper on the dieting tables. He believed the stew must have been for convalescents. He did not know of it being given. The "ordinary diet" he agreed was a good diet, and if the patients got the diets set out it would have been very good for them to have had water to slacken thirst. He never told the nurses not to give water. Could order stimulants without supervision from Dr. Grieve for weak patients; but not eggs at the last without the initialing by Dr. Grieve. Did not know whether this initialing by the superior Medical officer was the custom in other Hospitals. The numbers of diets in each ward at Hampstead were each day put on printed forms made up from the Medical officers' returns, and sent to the steward for transmission to the kitchen to show the quantities and classes of diets required, vouchers being given and taken in each case. The cooks had told him that they had to "work" by the same diet sheets for several days running, and he reported this to Dr. Grieve, who said he would see to it. Would not undertake to say that Dr. Grieve did not attend to it. Did not know that the total supply of milk for the twenty-four hours for any ward was short; he never said it was—he had only said that the night supply was short. Certainly the quantity supplied for the twenty-fours was sufficient. He supposed so; and it would not be injurious if persons who had taken their fluid nutriment supplied for twenty-four hours in a less time slaked their thirst with water, but it would be injurious for patients, in his opinion, to go without nutriment for long periods. As to why he had given strict injunctions to the nurses to apportion out the supply for day and night so that the patients should have quantities in each, he had reported to Dr. Grieve that they did not, but not in writing. He did not report it in writing, because if a verbal complaint did not receive attention, one in writing would not. Witness told the nurses not to give the patients in the day five out of the six pints allowed for the twenty-four hours. He told the nurses constantly not to give the fluid nutriment during the day to the absence of it during the night. The complaints regarding the nurses as not attending to the orders were made respecting all the nurses in his ward. These orders he spoke of as being continuous, and being as continuously disregarded.

The witness here had handed to him the letters and testimonials given by him and his colleagues to nearly all the nurses in the Hospital. He owned that these nurses of whom he had spoken in high commendation were the nurses of whom he now spoke as continually disobeying his instructions to apportion out the milk and fluid nutriment so that the admitted ample supply should have served for day and night. Referring to the tainted meat, of which he spoke as having been served out to patients, he said this occurred in the hot weather. A large proportion of the patients admitted to Hampstead were not in a filthy condition as regards having vermin. Should think that a head in small-pox would be difficult to treat for vermin, owing to the small-pox eruption. The nurses used to cut the hair and treat heads on his instructions, if their time permitted. He directed it to be done, and he knew cases in which this was not done on his order. These "excellent nurses" even did not carry out his orders, because the "excellent nurses" did not have time. Was present when a witness called on his side said the nurses had plenty of time—were three or four hours doing nothing. Heard that sworn to, but did not think it was a fact. One would think a patient in a ward would be capable of saying what a nurse did there as well as a Doctor who was absent. The nurses had enough to do.

Dr. Buchanan: You mean to say, I suppose, they had enough to do if they did their duties?—Yes.

The witness proceeded: There was at times a great pressure of patients for admission to the Hospital. Could not say that there were as many as 300 in one week. Would undertake to say that eight or ten out of every twelve admitted were not filthy with vermin; and though he agreed that it was difficult to get these insects out, it was possible to get them out. It would be necessary to have the assistance of the Assistant Medical Officer to do this. He would not propose to apply white precipitate for small-pox heads; he never prescribed white precipitate, but "staveacre." He could not say that the use of carbolised oil would stain the sheets.

Dr. Buchanan asked witness what the colour of the carbolised oil was, and he replied he did not know.

Mr. M. Williams asked the Court here to adjourn.

On the re-assembling of the Court, after touching upon the tying down, which practice the witness said he did not believe was approved by eminent Medical men, the witness was taken by Mr. Williams over the subject of the dead body lying in the bath-room all night, and emitting a fearful stench, said to be smelt by the patients in an adjoining ward. He said he was taken to see it; and though he knew that there were means to be taken to prevent unpleasantness, he never suggested anything to be done. It was not his ward. He did not see how long the body continued there, but it was removed, he heard,

shortly after he saw it. With regard to the mortality in the Hospital, he could not say what the average mortality was in vaccinated patients. His memory was faulty. He thought the average mortality was 15 per cent. There was a good deal of difference between the mortality in vaccinated and unvaccinated patients. He did not know Reynolds's "System of Medicine" as a standard handbook in the Profession. He had not read it. Although he had taken a position in a special Hospital, he had not made a special study of small-pox. He had not made himself acquainted with Seaton's "Handbook of Vaccination," although that might be a text-book on the subject of which he had treated. He had not read any special book upon small-pox. He had accepted a special appointment with regard to small-pox, and had given an opinion with regard to mortality—an opinion published in the *Times*—and yet had not read any special books on the subject. The mortality at Hampstead Hospital was something like "19 decimal something," and he should be surprised to hear that this was less than that at the Highgate Hospital in the 1863 epidemic. He did not know that these facts had of late been published in the Medical journals, showing that at Hampstead the mortality was lower than at Highgate.

The following figures were then read:—At Hampstead, during the last epidemic, the mortality was—vaccinated, 9·8; unvaccinated, 45·8. At Highgate Hospital, in the 1863 epidemic, the mortality was—vaccinated, 9·9; unvaccinated, 47.

Witness had heard of Mr. Marson, of Highgate Hospital. Had not referred to any of his works and statistics.

Dr. Buchanan remarked that no lessons were to be gained from going into these figures here.

Mr. M. Williams said he was endeavouring to show standard facts and figures for information.

The Chief Commissioner said the information could not, it was evident, be obtained from the witness.

Witness believed it was necessary to have a dietary for a Poor-law Hospital. Had never read any of Dr. Edward Smith's works on dietary. Witness knew he was an officer under the Poor-law Board when at Hampstead, but had never looked, that he knew, at Glenn's "Poor-law Orders," and never saw the book, as far as he was aware. He acted throughout without responsibility, as he understood from what he asserted Dr. Grieve told him. He did not tell any of the managers anything when he saw them at Hampstead. Patients would be likely to suffer if the responsibility were shifted from the Assistant Medical Officers; but he did not think it was his duty to represent that to the Committee. He believed now Dr. Grieve did not report his complaints to the Committee. Some of the complaints made by the Assistant Medical Officers were of avail, but some were not remedied, and yet he did not think it his duty to report this to the Committee. There was another Medical man on the Committee, Dr. Harvey, and this fact was in witness's knowledge at the time he was in doubt whether Dr. Grieve forwarded the complaints to the Committee. He knew that there were four eminent Medical men on the Committee, still he did not think it his duty to inform them. Knew that the written reports from himself and his colleagues came before the Committee, but he did not think it necessary to report in writing.

The cross-examination was here going into the question whether or not the witness was frequently complained of by Dr. Grieve for neglect of duty, and the Chief Commissioner asked what the purpose of that examination was, and whether it would not be well to drop personal questions.

Mr. Williams said it was his purpose to show that if there had been anything wrong about the treatment of patients these young men who had made the charges were responsible; and to show this he was going to impeach the manner in which they had discharged their duties. He should do this by reference to facts which had come to the knowledge of the managers since these young men had left the Hospital; and he could show that if the things complained of had occurred it was through these Assistant Officers' own neglect.

Mr. Collins disputed the right of the other side to go into these matters after the ruling in regard to the letters of the disputed dismissal or resignation.

Mr. Williams said these young men were making an appeal to the public for sympathy, and he was going to show that they were unworthy of that sympathy.

The Commissioners agreed that Mr. Williams could go into this subject to show animus, but appealed to Mr. Williams to keep to the seven charges in the *Times*.

Mr. Williams bowed to this view, and said he had abundance of testimony to establish what he had said.

The witness was taken in detail over the chief points in his evidence by the Chief Commissioner and Dr. Buchanan. He was pressed by the latter particularly with regard to his evidence on the supply of milk to the patients, one of the charges which caused much anxiety as implying a neglect of fevered patients. The witness allowed that since June 18 he could not say that the milk had been short in quantity otherwise than owing to the maladministration of the nurses. He admitted that he had not given the nurses special instructions to take precautions for the preservation of a night supply.

Dr. Buchanan read the words in the *Times* as written by the witness and his colleagues, and asked if the witness thought that statement was an ingenuous way of stating the difficulty.

The Witness: I do think so.

Dr. Buchanan: Is it ingenuous, on August 23, the date of your letter to the *Times*, to state matters which you say had not occurred since June 18?—Well, perhaps it would have been better not to have put that in. Don't you think if you had written to the *Times* that what had occurred since the 18th in regard to the short supply of milk at night was owing to the maladministration of the nurses the point would have been taken out of it?—I don't think so.

The Court then adjourned.

Fifteenth Day.

On Tuesday, October 10, Mr. Kynaston's examination was continued.

In answer to questions by Dr. Buchanan, witness said: In my opinion the patients in the Hospital suffered from insufficient nursing. They suffered in the want of general attention. The Assistant Medical Officers used to draw the attention of the nurses to such things as washing, and these complaints were frequent. The nurses always seemed willing to do all they could, and though I found the particular cases to which I had drawn attention looked after, the nurses generally said they had not time. I was able to form some opinion as to the truth of what the nurses said as to want of time. Some of the points on which I formed this opinion that the nurses had too much to do were, that we could not get the hair cut and the heads attended to; and then I have heard the patients calling out for food, and the nurses could not attend to them all at once. I delayed my night visits sometimes, as I said, to see how the nurses acted, but the nurses would, of course, be expecting me. I sometimes "dropped in" after my regular night visits at about twelve o'clock, and generally I then found the nurses at their duty. Sometimes the ward, at this night visit, would be like a Babel, from a lot asking for food at once. That occurred pretty frequently. I have spoken to the nurses, and they have said they could not attend to all at once. I believed these were not mere excuses. It was the duty of one of the Assistant Medical Officers to see in-coming patients; but sometimes they were admitted, through the neglect of the receiving-ward nurse, without being seen by the Medical officer. The Assistant Medical Officer who admitted the patient did not order baths, though that would be a matter requiring Medical judgment. We gave general orders that patients should have their hair cut; but I never, in the receiving-ward, gave particular instruction as to particular patients. When the patients were in the acute stage, they were not habitually washed all over—there were no such appliances as sponges for this. I think, Medically, the patients should have been washed. I should think the tendency in small-pox for the skin to slough would be lessened if the patients were washed. I do think, if this practice of washing patients had been carried out, the tendency to bedsores would also have been lessened. I have told the nurses that the patients should be washed, and they said they had no appliances. I have told Dr. Grieve that the patients should be sponged, and he agreed with me, but it was never done to any extent. I remember giving instructions to nurses to wash particular patients, and I think this has been done as far as possible. Flannel would be of the like use for cleaning the skin as sponge, and I am not certain that I have not seen flannel in the wards. I complained to Dr. Grieve of there being no under-nurse for No. 4 Ward, and he said one should be supplied. One was not given until a fortnight.

The Chief Commissioner read over to the witness the evidence of a patient, who stated that he complained to Mr. Kynaston of not obtaining his stimulants, and that he never had them, even after he complained to Mr. Kynaston. The witness now was asked if he had ever had the parties up before Dr. Grieve and had the matter thoroughly sifted, and he replied that he did not remember having done so. Stavesacre, the remedy he used for vermin in the heads, would be, in his opinion, proper to use at all stages of the small-pox, and he would apply it at all times. He would not think it at all disturbing to a patient

in the acute stage of the disease to have his or her hair cut and the ointment rubbed in.

Dr. Buchanan: Is not stavesacre a very irritating thing?—It is, but I have not seen any ill effects from it.

Having investigated all the cases of erysipelas that have come under your charge, you never had reason to believe that cases of erysipelas had anything to do with this use of stavesacre?—I don't know of any case which arose from this use.

By the Chief Commissioner: He had no reason to believe that tying down was carried on behind his back until he heard the witness say so here.

By Mr. Williams: He could, at any time before June 18, order port, sherry, brandy, whisky, extra bread, and he had ordered extra milk and beef tea. He could also have ordered for any patient mistura vini gallici, and did order it—a mixture of brandy and eggs.

By the Chief Commissioner: Dirty bed-linen and such-like want of cleanliness would lead to suffering, and he thought clearly that the patients suffered from this. The dirty linen continued from the beginning to the end of the time he was there. He complained to the nurses, and they said they could not help it. He had complained to Dr. Grieve—not putting it in the form of strong representations that the patients suffered, but he complained verbally. There was not the same necessity for complaints regarding the shirts as the sheets. He never reported or complained in writing of the dirty linen.

In the re-examination by Mr. Collins, who read from the Hospital books a long account of the eggs supplied to staff and patients, in which there was no particular point, the witness stated that he was never questioned by Mr. Wyatt regarding the Hospital. Up to March 6 there was only one pint of milk for the twenty-four hours. The witness was taken in detail over the changes in the diet as already reported, and then Mr. Collins wished to read the statistics of mortality in the Highgate Hospital in contrast with the mortality of Hampstead this year; and the Medical Commissioner expressed an opinion that nothing really would be gained from these contrasts. The witness was then taken over the statistics of mortality at Homerton, Stockwell, and Hampstead. The figures were made up to July 22, and gave the mortality in Hampstead at 19·1, Stockwell 17·6, Homerton 17·1. The witness said these figures gave the mortality in the three sister Hospitals under the Management Board. Respecting the testimonials he had given nurses, he should not have given these if he had known that the practice of tying down was carried out behind his back, as he had heard at that inquiry.

Mr. William Greaves, the third of the complaining Assistant Officers, was then called. He stated that he was the son of a Surgeon, had been in office in a Staffordshire infirmary; entered at Guy's in October, 1866, where he held all the usual appointments.

In answer to the Chief Commissioner, he said he had not been House-Surgeon nor House-Physician. He had been offered the post of House-Surgeon at Guy's, but in consequence of Mr. Kynaston's illness, he did not go up to pass his examination in Surgery. In point of fact, he only held the "Hall" qualification. He considered that the supply of nurses was then insufficient, and he spoke of there being at that time no bed-cords. He spoke to cases of tying down which came under his notice, and he reported one case at this early date to Dr. Grieve, who said it was altogether improper to tie down, and witness believed the Doctor reprimanded the nurse for doing it. In his opinion, the nurse should obtain, in general, the sanction of the Medical officers to the restraining of patients by tying down or strait-jacketing; and he agreed that gentleness should in all cases be first tried, as violent restraint—such as tying down or strait-jacketing—increased the delirium. When patients were dangerous to themselves and others, then it would be necessary; but these cases were very few, scarcely one occurring in 200 small-pox patients. He had told the nurses not to restrain by mechanical means without the Medical officers' orders. He had had fully 1000 patients at Hampstead during his time there, and he had restrained by strait-jackets four males; and he had employed a sheet, opened broadly and tied to the bedstead, to keep females in bed. This tying down occurred in, perhaps, a dozen cases, and he had given these instructions at the first.

By Dr. Buchanan: He had given these instructions to the nurses in the male wards, and this method of restraint was employed in both male and female wards by his permission. He retracted his permission afterwards when convalescents were able to assist. There were only two day nurses at first, and all the cases were then acute, and, in fact, for some time after his first going there the patients were all in the acute stage. He had told Dr. Grieve that under the condition of things then existing—the small number of nurses to the large number of acute cases—some mechanical means of restraint were required. With regard to the diets, when he first went Dr. Grieve directed his attention to the two diets—the low and the ordinary diet—and Dr. Grieve never told him he might order more. He complained of the inefficiency of the low diet, the quantity of milk more particularly, during the whole time from December to March 6; but Dr. Grieve said the dietary had been drawn up and approved by the Poor-law Board, and it was sufficient. On March 6 witness asked Dr. Grieve if he would increase the low diet by half a pint of milk for each patient, and this increase was given, but the supply was still insufficient. From the time when the morning meetings of the Medical officers with Dr. Grieve commenced, complaints were made of the insufficiency of the milk, of a night more particularly. He also agreed in detail about the milk being sour in the summer months, and he had tested it by the ordinary litmus paper, and frequently found it acid. He had spoken of this to Dr. Grieve, and he said it could not be helped, as the hot weather caused it. Witness allowed that these complaints chiefly referred to the time before June 18, and complaints after that date were not so frequent; but some did occur, and on his telling Dr. Grieve, after June 18, he said that if there was not sufficient milk for the night it must have arisen from the nurses having given too much during the day. The beef-tea was at one time made from shin-beef, at another from "Liebig's Extract." It was weak and exceedingly salt, and the patients greatly complained of it. The witness was taken over many other points, and he was called upon to speak with regard to the eggs not being supplied—matters which have been abundantly gone into before. The witness also spoke of the meat being tough and hard. In regard to the shortness of supply, on some occasions the witness had gone to the cook, and found that all that had been ordered for the wards had been supplied, but witness had not traced who was in fault for the short supply. He then spoke of the dead body being left in the bath-room all night in No. 8 Ward. This was on August 6. He had seen the man whose body this was on the previous night when he was alive. There was a stench from the man when he was alive, and the stench was very bad in death. The nurse Staley reported to witness at eleven o'clock in the morning (Sunday) that the man had died at twelve o'clock the night before, and he had been removed to the bath-room, but had not been removed from there because there was no shirt to put him in. Witness made a written report of this at 11·45, and made a personal report to Dr. Grieve at twelve o'clock, on his coming out of chapel, and the body was forthwith removed.

The Chief Commissioner: Did you not go at eleven o'clock and see for someone at once to remove the body?—No; I sent someone. I was going my rounds at the time.

Dr. Buchanan: When did you commence writing your report, which you date at 11.45?—Well, I commenced it at once, at eleven o'clock; but I finished it afterwards. When did Dr. Grieve get your written report?—After I had met him and told him, I suppose.

Mr. Williams: Dr. Grieve never had it.

The Chief Commissioner: Cannot you tell us whose fault it was that the body was not removed?—No, I cannot. The nurse told me she could not get anyone to remove the body.

The witness went on to say that when complaints were made to Dr. Grieve about the suggested deficiencies in the Hospital, he replied that he alone was responsible. The witness understood by this that, in all things beyond the Medical treatment, the Assistant Medical Officers were not held responsible. Dr. Grieve used sometimes to suggest that less stimulants than witness had ordered were advisable, and he reduced his orders. Pressed on this point by Dr. Buchanan, witness in these particulars deferred his judgment to the Medical judgment of Dr. Grieve, the Medical Superintendent, who, when spoken to as to what the public would think of the Hospital if it were known how overcrowded it was, said he could defend himself against the public. Dr. Grieve never told the Assistant Medical Officers that they could speak to the Committee if they had any complaint to make. He never saw any of the Committee coming to the wards. Dr. Grieve, early in the year, brought some Poor-law rules, threw them down, and said, "Look there! you are not even mentioned; you are nobody; you are nothing." This was in regard to the complaints made.

Dr. Buchanan: Did he really use those words?—Yes; he was angry for the remarks which had been made about packing the Hospital.

The witness further spoke to vermin being in the wards, and

said he used all three remedies—white precipitate, stavesacre, and carbolised oil.

The Court then adjourned.

Sixteenth Day.

The proceedings of Wednesday, October 11, opened by the witness Mr. Greaves being called, and his evidence given on the previous day read over to him. In answer to further questions put to him by the Commissioners he said he believed the beef-tea supplied in the Hospital was made from what is known as "Liebig's Extract," a substance which had been approved by high Medical authorities. What he complained of in the beef-tea that he tasted was that it was weak and was of an unpleasant flavour.

Cross-examined by Mr. Williams, the witness said: I consider myself a judge of Hospital wards, having had some experience, and I consider the Hampstead wards constructed upon an excellent principle for epidemic disease. They have excellent ventilation, with self-acting closets, but I do not know that each closet has separate cross-ventilation. The lavatories are fitted with basins for washing, and water is laid on to each, and there are separate basins to carry into the wards. There is a separate kitchen to each ward, and a general kitchen where the cooking is done by men cooks, and the kitchens are fitted, I believe, with the newest appliances of gas and steam stoves for cooking. There is a separate bath for each ward, and each bath can be detached. The fittings of the laundry and such places are at Hampstead very convenient. I do not know that the Hospital was first intended for only 120 patients; but I know that while I was there the Hospital was run up from 120 beds, which it held when I got there in December, to about 500. Wards 1, 2, and 3 only were opened when I went there, and 4 and 5 wards were opened shortly after. [Mr. Williams read the following figures:—In January the beds were increased from 150 to 190; on February 9 they were increased to 258 beds; on February 12 they were increased to 292 beds; on February 17 they were increased to 326 beds; on February 23 they were increased to 360; on February 25 they were increased to 394; and directly after to 414 beds.] I believe those figures to be about the rate of increase. Islington old workhouse was taken over in April for convalescents, and in May the Hampstead Hospital held 514 patients or thereabout. My belief is that Dr. Grieve said he would defend himself "against" the public when spoken to about "packing" the Hospital, and not "before" the public. I don't know who used the term "packing" in regard to the large numbers in the place, but it was used by the people in the Hospital. I cannot give the least idea of the amount of cubic space given to each patient when the "packing" was at its highest, or at any other time. I cannot say what is the minimum amount of cubic space allowed to each bed by the Poor-law Board's rules. I apply the term "packing" to seeing two persons in one bed. That occurred in January, in Ward No. 1, to persons who were in an acute stage. I saw this very frequently. This (double bedfellowship) lasted from one night till the next day. I have never remonstrated with Dr. Grieve upon this, but I have pointed it out. The cases were in a mild form, but still in the acute stage. I consider the small-pox a very offensive disease, in that the patient often during life emits an offensive stench. The wards, however, were very sweet, and these extra cases were not of the class to lessen the sweetness of the ward in which they occurred. There was a scanty supply of sheets to my wards. I do not know that there were as many as twenty laundry women engaged there at one time, and it would not surprise me to learn that there were twenty. I do not know that 1000 pieces of linen were turned out of the laundry in a day, and it would surprise me to hear it. Although I considered that the patients suffered from the want of linen, I never inquired as to the rules governing the supply of linen, or what were the rules about changes. There should be, in my opinion, no rule as to the supply of linen to small-pox patients. As a matter of fact, I never knew that one of the rules of the Hospital was that certain cases should have an unlimited supply of linen. I commenced writing my report concerning the dead body being in the bath-room before the body was removed, and I finished it afterwards. I don't suppose it came to Dr. Grieve's hands until the next day; but though I did this it did not occur to me to write a complaint about the linen, although that was going on at the same time. The nursing was superintended by benevolent ladies of a Sisterhood, who did their duties ably and kindly. They had under them nurses, helpers, scrubbers, and convalescent helpers. The proportion of nurses at Guy's was throughout the Hospital a nurse to seven patients. When I found the milk sour I did not report it to Dr. Grieve, but I sent the nurse to get a fresh supply. I did not wait to see if a fresh supply were given. I sent the nurse to Dr. Grieve, but I did not wait to see the result. I have inquired on the mornings after the nights on which I have thus sent for a fresh supply if this had been given. I was sometimes told that the supplies were given and sometimes not, because the milk was all sour. It is true that I was told when no milk was given that an extra supply of beef-tea was given in its place. I do not call the use of the sheet to confine the patients, as I gave the nurse directions to use and permission to use, "tying down." I call that restraint, but it is different from the restraint which confines the limbs. I regard the use of the sheet, as I gave permission for its use, as a sort of semi-mechanical restraint, or *semi-demi*. What I meant by one case requiring restraint occurring only in 200 patients on the average referred to cases of violent delirium. Delirium comes on gradually and not suddenly. The case of a man named Wills (a man who had his leg swollen, stated to have arisen through being tied down) was not that of a man suffering from delirium tremens, and I do not remember having described his case to Dr. Grieve as one of a man suffering from the effects of drink. The nurse should send for the Medical officer before restraining a patient; but I should not object to a nurse putting on the strait-waistcoat in extremely violent cases while she sent for me. I always enjoined the nurses not to restrain, but I never told them to keep a record of such cases as they were compelled to restrain. When I have found the patients restrained against my orders I have reprimanded the nurses, and spoken to Dr. Grieve; but I took no other steps to protect my patients. I have found the restraint still used after I had complained, but not so often as before. I cannot name any nurse whom I reprimanded except Nurse Sullivan, who, I know, was dismissed; but I do not know that she was dismissed for drunkenness. Sister Francis was acting as matron to the whole Hospital; but I never reported to her or to Dr. Grieve that I had had to reprimand nurses. Dr. Grieve had offended more than my dignity when he said I was "nothing and nobody." I considered I was "something and somebody." (Asked if he did not consider his position an untenable one for a gentleman to hold, stripped as it was of authority by Dr. Grieve, and if that did not spur him on to complain.) I did not report this to Dr. Brewer. I was not exactly of opinion with Mr. Kynaston that if "the diet was doubled, the mortality would be halved." I don't agree with the literal meaning of those words, but I think that an improved dietary would have assisted to a lower mortality. I never said that or anything else to Dr. Brewer. I did not consider that I was not responsible for anything—I was for the lives of my patients. I was responsible to myself. I did consider myself responsible otherwise to Dr. Grieve as my superior, and not to the authorities. I did advise that strait-jackets should be obtained, because there were no other means of restraint at that time.

By the Chief Commissioner: I remember the case of a patient complaining about Nurse Donaldson drinking his wine. I cannot say positively that she was or was not dismissed at once on my reporting it to Dr. Grieve, who investigated all such things. It is probable that if a man told me he was "nearly starved," I should tell him I had no power to help him. I should not consider it my duty to make any strong representation of this statement to Dr. Grieve to get the man more food. I told Dr. Grieve all these complaints, and I have no doubt I told him this. I do not remember the case. I made no notes of such things. The cases of two persons being in one bed occurred to both sexes, in both male and female wards. The people who were recovering were generally put together in order to allow coming-in patients to have separate beds. I don't know the breadth of the bedsteads; they were the ordinary breadth—I think about 2 ft. 6 in.

The questioning continuing, the witness said: I have remarked upon dead bodies being in my ward for three or four hours. I never had an occasion to report anyone for not removing a body, but upon one occasion I had to go and tell the wardsman that if he did not remove it at once I would report him to Dr. Grieve. He at once removed it.

By the Chief Commissioner: The case mentioned in the *Times'* letter was quite an exceptional case.

The Chief Commissioner: I must confess I can hardly see why, instead of going to fetch your colleagues to look at this offensive body, which you say was offensive and injurious to your patients, you did not take means to fetch persons who would have removed it at once.—I did not know where to go to then; it was Sunday morning.

I suppose it would not have been Professional etiquette to

have carried it out yourself for the relief of your patients; but I must say that it strikes me—I speak as a layman—that if I saw my patients suffering from the presence of this body, I should have got assistance and taken it out.

Dr. Buchanan: I must here say that I feel rather compromised, as a member of the Profession to which these gentlemen belong, by the course they adopted on this occasion. I am in the position which one of them regarded himself as being in with respect to Hampstead. I am a visiting Physician to an Hospital, and if I had seen my patients suffering from the presence of a dead body I should have used some means to remove it, even if I had to carry it out, sooner than it should have remained to do mischief.

Witness: But I had not the means.

Dr. Buchanan: You had a sheet, and your two colleagues to help you.

Questioned further by Dr. Buchanan, he said he had permitted — he had told the nurses to give cold water to the patients. He certainly told the nurses to give water. He did not consider cold water was the best thing that could be given to slacken thirst in small-pox patients—not so good as milk—still it might be given. He did not consider beef-tea was a good drink; milk was in his opinion the best drink. He did not know where the nurses got the notion that the giving of water was not allowed by the Medical men—himself and his colleagues. He had heard the evidence given there as to the complaints about want of drink; still he did not think that half of those complaints were due to the misunderstanding which did exist on the part of the nurses respecting the Doctors' objection to giving water. Some of those complaints might certainly have been obviated if water had been given by the nurses. Certainly he agreed with his questioner that the misunderstanding which the nurses had of his and his colleagues' views on this point was a most unhappy one; but he thought this must have been an excuse of the nurses to their patients. He had ordered water to be given when he heard people asking for drink.

Dr. Buchanan: You have told us in your evidence that there was plenty of beef-tea, and you cannot tell us that the supply of milk was short since June 18, and yet in your letter to the *Times* of August 23 you make the charge of there being a "totally inadequate supply of milk and beef-tea." Now, do you not think that calculated to convey a false impression in the minds of the public?

The witness made no direct answer to the question, but said he held different views from those held by his colleagues on the use of beef-tea.

The re-examination then proceeded, and, in answer to Mr. Collins, the witness said he thought the time when he lunched with Dr. Brewer, M.P., the Chairman of the Board, on an occasion when that gentleman came to visit the wards, was before February 14—the date given by that gentleman. Regarding the complaints he made, they were always looked upon as unnecessary—as coming from him on subjects with which he had nothing to do.

Mr. Collins said this was the conclusion of his case, and his clients, who, he said, had sustained the heavy cost of £400 in pushing this inquiry on, could no longer afford legal assistance.

Mr. Williams expressed his deep regret that this course had been resolved upon by the other side, who, he said, had brought grave accusations against a body of gentlemen, who had managed these Hospitals in a time of great difficulty, and against the superintending Medical officer. The withdrawal of the other side at this juncture was very hard upon the managers and Dr. Grieve, who desired to have the evidence they would produce tested in every way for the satisfaction of the public mind as to where any blame rested. He trusted the Commissioners would make such representations to the central authority that the Government would permit the other side to have the advantage of legal assistance.

The Chief Commissioner regretted very much the course which had been adopted by the complainants' side, and said it would be a misfortune if some test were not applied to the evidence the other side was about to bring forward. He and his colleague would make the representation which Mr. Williams had asked for, and he would report the result the next day.

Mr. Williams then opened the case for the managers, and expressed his deep regret that he had been prevented, through the case having been carried on so long on the other side, from sooner giving the answers which the managers had to these libels which had been cast upon them. He then went over the history of the Hospital, traced its gradual rise in December last, ward by ward, to meet the raging epidemic of small-pox, which increased day by day for months; and he gave the statistics of the Hospital very fully—the admissions, the acute cases, the number of convalescents, and a mass of information of like character, which the managers were anxious should be laid before the public. He desired to give publicity to the fact that there had been, from December, 5578 admissions to Hampstead. The mortality at Hampstead had been 18·8 or 9; Homerton, 18·64; and Stockwell 18·22.

Mr. Williams had not finished his address when the Court rose, and the proceedings were adjourned until the next day.

GENERAL CORRESPONDENCE.

ANÆSTHETIC DISCOVERY.

LETTER FROM DR. ROBERT H. COLLYER.

[To the Editor of the Medical Times and Gazette.]

SIR,—Having in my possession the original publications of May, 1843, wherein I distinctly state that the inhalation of narcotic and stimulating vapours produces an anæsthetic state, prior to which date I had performed various surgical operations during this insensible condition, which enabled me to publish the fact in May, 1843, I cannot now understand how Horace Wells could be named as the originator of modern anæsthesia, when his first essay with nitrous oxide only dates from December, 1844. There can be no objection to raising a subscription for the widow on this side of the Atlantic, on the part of those who are unacquainted with the facts as they occurred at the time. It is, however, most unjust to myself to denominate Horace Wells the original discoverer.

As you have a copy of my work—recently published—wherein I have dispassionately reviewed the whole controversy, there is no occasion to reopen the question at present.

I am, &c., ROBT. H. COLLYER, M.D.

199, Brompton-road, S.W., October 9.

DOMESTIC SANITATION.

LETTER FROM MR. A. G. BROWN.

[To the Editor of the Medical Times and Gazette.]

SIR,—Will you allow me the opportunity of replying to your correspondent Mr. Charles Orton, by bringing under the notice of himself and the Profession what seems to me an apparatus for doing the very thing he asks for?—viz., whether "the flushing with disinfectants might be dispensed with if another smaller cistern, or even bottle, holding concentrated disinfectant, could be connected with the pan, and could be made use of easily; for to many persons it is too much trouble to attend to sanitary matters."

For some months past I have been trying to give a practical answer to this very question, and before this reaches the eyes of the Profession a "smaller cistern," under the name "Self-acting Disinfector for Water-closets," holding one quart of a disinfectant (also a "gallon size"), will be ready for the public. Several things in connexion with it have especially cost me much time and thought—as, for instance, preventing anyone, out of mischief, from running off more than his due share of the disinfectant; and in adapting the disinfector to every make of closet. Beyond stating that the apparatus is quite self-acting, only requiring to be charged once in from a fortnight to several months, according to its size and the frequency with which the closet is used, and that the disinfectant becomes mixed with the water in passing from the cistern to the closet, it is not for me to say anything further.

I am, &c., A. GARDINER BROWN.

St. Thomas's-street, S.E., October 9.

ON THE FOOD OF THE ARMY DURING THE LATE MANŒUVRES.

[To the Editor of the Medical Times and Gazette.]

SIR,—Whatever may be the shortcomings of those whose business it was to feed the army corps during the recent manœuvres, it is clear that these gentlemen have succeeded in making to themselves friends of the purveyors of intelligence. The Commissariat Department has been several times described as having achieved a comparative success. It is right, however, with a view to future improvement, that points in which it has altogether failed should be put on record.

In the first place, I believe that the fact of our having escaped starvation was due to the continuance of fine weather,

and to nothing else. The stores, which were distributed with such difficulty, would never have reached the forces at all if the rain had made the roads heavy. And be it remembered that the movements were all made in a tract of country about thirty miles by fifteen, in the immediate neighbourhood of Aldershot, and that the place of encampment for each night, and the number of men to be provided for, were known beforehand.

The first half of the time was occupied in movements which did not take the men far away from camp, and short marches. In this period fresh meat and fresh bread were served out. The meat was good, but there was scarcely enough of it. The nominal three-quarters of a pound per man, including bone, was none too much for men in hard work. The bread was burnt black on the outside, and consisted of a clammy mass in the interior which no man could eat with impunity. If "two pudding-ends would choke a dog," certainly one of these loaves would admirably answer the same purpose. It may be true that excellent bread can be turned out with the same portable steam-ovens, and the same materials; why, then, was it necessary after six months' preparation to put men in charge of the ovens who did not know how to use them? The bursting of one of the ovens on the road—which, fortunately, did not result in loss of life—was, probably, also due to the inexperience of its managers.

The detachment to which I belonged as Doctor consisted of about sixty men and officers of an exceptional and highly educated corps, of various birthplaces. The battalion to which we were attached, of which I had the charge during the whole of the movements, was from a southern county, and was composed chiefly of artizans, labourers, tradesmen, and others from the villages and towns. Besides these, there was a detachment of about fifty Londoners. We mustered about 500 altogether. The discipline was excellent; indeed it was so good that the example of perfect obedience and punctuality set by my boys—some of them by no means mere infants—was not needed by the Flitchshire lads. I believe the guard-tent remained untenanted the whole time. Physically, my detachment was decidedly the best; the cannon must be fastidious indeed which would be dissatisfied with them as its fodder. After them came the Londoners, and then the countrymen, of whom the dwellers in towns appeared to have the advantage over the agriculturists.

From the battalion so constituted sixty-one cases of diarrhœa, at least, came for treatment in the first week, two of which, on account of loaded tongue and high temperature, were sent to the field Hospital of the division; besides about fifty other cases of slight ailments, sprains, bruises, etc. The diarrhœa was most prevalent among the country lads, nine of whom had to be sent home as unable to march.

Our first camping-ground was apart from the rest of our brigade, and on a worse site than the rest—probably it was feared that our bad discipline would demoralise the regulars if we were put near them—but after a few days' experience of us, it was thought advisable to put us between the regulars and the militia, without taking any extra precautions against us; from which it may be inferred that our camp was not the most disorderly of the three. I think, therefore, that the prevalence of diarrhœa could not be attributed to excesses on the part of the men, and I have no doubt that it was due, in the first place, to bad water near the camp, a defect which was not obviated by the occasional services of a water-cart; secondly, to the extreme irregularity with which the food was served out, and the character of the bread; thirdly, to the absence of a supply of good water on the line of march, which induced the men to drink effervescing saline draughts, or "coolers," offered for sale on the road, and to devour green apples, over-ripe plums, and other like substances.

In the second half of the campaign, the fresh meat and bread were replaced by commissariat biscuit, Yateman's beef sausage, soup in tins, and Australian mutton. The quantity of diarrhœa was very much less on this food.

But I have already occupied too much of your space. I will reserve my further remarks till next week. Perhaps enough has been said to show that the art of keeping men alive, which is the aim and object of the non-combatant departments of an army, has not yet reached absolute perfection amongst ourselves. I am, &c., MACHAON, jun., M.D.

[N.B.—The printer's devil suggests that our correspondent's name is not in the "Directory"!]

SMALL-POX is making great progress at Belfast, and creating much alarm.

OBITUARY.

CORNELIUS BUTLER, F.R.C.S.,

DIED the other day, from the result of an accident, at the ripe age of 82. The name of Butler in connexion with Practitioners of Medicine has long been associated with Essex. For nearly a century members of that family have been prosperous and successful Practitioners in Brentwood, Ingatestone, and Romford. The subject of the present memoir was the last of this respectable and useful family, and he practised largely and successfully in Brentwood for just upon sixty years. He became a Member of the Royal College of Surgeons in 1811, and was elected a Fellow by nomination in 1852. He was for very many years Surgeon to the Romford Union and to the St. Leonard's (Shoreditch) School, situated near Brentwood. He was remarkably successful in preventing disease in this latter establishment, his last report to the Board of Guardians being most satisfactory. We are not aware that he published any cases or reports on strictly Medical subjects; but he was strongly imbued with poetic powers, and published many very interesting and ably written poems in the local newspapers and in other ways. The only separate work he printed for private circulation was a kind of itinerary in verse, describing with much graphic power the country around his own district, with interesting records of the families who were established in the neighbourhood, together with descriptions of the surrounding churches and mansions. This work was of considerable merit, and deserving of more extensive publication than it received. Mr. Butler was a Surgeon of good abilities and common sense. He had no ideas of a fanciful kind in his practice, and was guided by a large experience and a freedom from theory. He was a kind-hearted, genial, and hospitable man; ever ready to do good. He was wonderfully active even at a very late period, and at 60 could leap a ditch or run a race with an agility worthy of 25. The writer of this short tribute to his memory had an interview and consultation with him nearly twenty years since. The second master of Brentwood Grammar School, an amiable and able clergyman and teacher, had been removed from his office in consequence of some new regulations of the Commissioners. This gentleman removed to an old mansion between Romford and Brentwood—styled "Ditchleys." Here the master had scarcely received his scholars before an epidemic of fever and small-pox broke out, and threatened him with ruin. The scholars were all removed, and "Ditchleys" appeared to be a doomed place. In this emergency, Mr. Butler advised that a Medical survey should be made of the house and grounds by disinterested Medical Practitioners from London. Accordingly, Mr. G. A. Walker ("Graveyard Walker," as he was called) and the writer of this sketch repaired to "Ditchleys," calling on Mr. Butler on our way, and taking him on with us to the "plague-spot." An energetic and careful survey of the premises was made, and the source of the disease prevalent soon became apparent: unemptied cesspools, uncovered drains, and bad water told tooplain a tale. Remedies were applied, and in a few days we were able collectively to sign a report which was deemed satisfactory by all parties concerned. The scholars returned, and the school became flourishing, The energy, good-nature, and tact displayed by Mr. Butler on this occasion will not easily be forgotten by the writer.

THOMAS BUSHELL, M.R.C.S., L.S.A.

THE late Thomas Bushell was apprenticed nearly sixty years since to Mr. Coles, a Surgeon near Covent-garden. He was one of the esteemed pupils of the late celebrated Joshua Brookes, and of St. George's Hospital. Passing the Apothecaries' Hall and the College of Surgeons, he commenced practice at 117, Crawford-street, now fifty years ago, where he continued till his death, being highly esteemed by all around. On the commencement of the Royal Botanical Society in Regent's-park, he became one of its earliest members. Being much attached to botany, he was soon elected on the Garden Committee of the Society, to the welfare of which he was much devoted; and, constant in his attendance to making it useful for its scientific as well as for its more agreeable purposes, on the day previous to his death he had been there to meet on the business of the garden. Early on Thursday morning, the 5th inst., he awoke, and, ringing for assistance, expired very shortly after, being in the 75th year of his age. He was buried at Highgate Cemetery.

JOHN SAVORY, M. & L.S.A.,

Was born in the year 1800. In 1817 he was apprenticed to his uncle, the late Thomas Field Savory, as an apothecary, and in 1819 he went to Paris, where he was engaged in pharmacy, and the pursuit of Medical studies. Previous to his departure for the Continent, he was a pupil of Mr. Minors, the then celebrated cupper, and was the first to introduce into Paris the English art of cupping. On his return, he became a student at St. George's Hospital, and in 1823 passed his examination as a licentiate of the Society of Apothecaries. At this time he was very anxious to continue his Medical studies and to practise, but many of his Medical friends, including Drs. Baillie, Jenner, and Chambers, urged upon him to turn his attention entirely to pharmacy; he therefore relinquished the idea, and established himself with his uncle in Bond-street, where he eventually became the head of the firm of Savory and Moore. At a future period he was, in conjunction with Messrs. Allen, Bell, Morson, Payne, etc., one of the original founders of the Pharmaceutical Society, and was subsequently President of that Society during the years 1844 to 1848. The passing of the Pharmacy Act compelled him, as a Member of the Society of Apothecaries, to relinquish his connexion with it. Until within the last three or four years he remained at his post in Bond-street; always energetic and punctual in the performance of his duties, he required the same from all in his employ. Genial and hospitable in private life, he formed a large circle of Medical and other friends, by whom he will be deeply regretted.

He was the author of a popular "Compendium of Domestic Medicine, or Companion to the Medicine Chest," which has passed through eight editions; and a treatise on cod-liver oil.

AUGUSTUS G. GREAVES, M.R.C.S., L.A.C.,

Died last week at the age of 59, the immediate cause of death being thoracic aneurism. He had been in indifferent health for the last two or three years, during which time he had been frequently obliged to give up his Professional duties. He was Surgeon to the Government Diocesan Training College for Governesses, and for many years one of the Surgeons of the Derby Provident Dispensary.

NEW INVENTIONS.

THE "RHODA" INVALID TABLE.

This table is adjustable as to weight, so as to fit any bed. It is fitted with candlesticks, which are screwed into sockets, so that they cannot be knocked over by the movements of the invalid. The table has a high reversible rim, to prevent articles from falling off during the night, and this rim can be set up as a book-rest. The great advantage of this table is that it reduces the necessity for attendance, which is generally so great a burden upon a household; and, when it is not in use as a dining- or reading-table, it is ranged along the side of the bed, and the medicines and crockery required are placed on it within easy reach of the invalid. The price asked for the tables brings them within the means of everyone. This useful invention can be inspected at Mr. Robinson's, 173, High Holborn.

MEDICAL NEWS.

Apothecaries' Hall. — The following gentlemen passed their Examination in the Science and Practice of Medicine, and received their Certificates to practise, on Thursday, October 5, 1871:—

Addy, Boughton, Southport, Lancashire.
Bradbury, John Batley, Leeds.
Marshall, John, Bolney, Suffolk.
Slater, John Samuel, Bath.
Vores, William Mallam, Great Yarmouth.

The following gentlemen also on the same day passed their first Professional examination:—

Clyma, Handsford Hosking, Guy's Hospital.
Welch, Samuel, London Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Armstrong, James, M.B. Edin.—Honorary Assistant Medical Officer to the Liverpool Infirmary for Children, *vice* Dr. de Touche, resigned.

Butler, Francis W., L.S.A.—House-Physician to the Westminster Hospital, *vice* Ferdinand Wallis, M.R.C.S., whose appointment has expired.

Carruthers, Thos., L.R.C.P. and L.R.C.S.—Medical Officer of the No. 1 Tottington District of the Bury Union.

Clark, Andrew, M.R.C.S.E.—Assistant-Surgeon at Middlesex Hospital in succession to Geo. Lawson, F.R.C.S.E., etc., appointed Extra-Surgeon.

Corfield, W. H., M.A., M.B. Oxon., M.R.C.P. Lond., Professor of Hygiene and Public Health at University College, London—Medical Officer of Health and Analyst for the Parish of Islington.

Dungerdale, William, M.D., M.R.C.S., L.S.A.—Resident Surgeon-Apothecary to the Warrington Dispensary.

Lawson, George, F.R.C.S.E., etc.—Extra-Surgeon at Middlesex Hospital.

Tait, Lawson, F.R.C.S. Edin. and Eng., Surgeon to the Birmingham and Midland Hospital for Women—Surgeon to the Birmingham Lying-in Hospital.

Wallis, Albert W., M.R.C.S., L.S.A.—Surgeon to St. Leonard's Schools, Brentwood.

MILITARY APPOINTMENTS.

59th Foot.—Staff Assistant-Surgeon Henry Bradford, to be Assistant-Surgeon, *vice* Henry Thomas Brown, M.D., appointed.

Medical Department.—The two undermentioned officers, having completed twenty years' full-pay service, to be Staff Surgeons-Major under Article 342 of the Royal Warrant of December 27, 1870:—Staff Surgeon Herbert Taylor Reade, V.C.; Staff Surgeon George Paul Murchin Woodward, M.D. Assistant-Surgeon Charles Henry Browne, to be Staff Surgeon, *vice* Walter Moses Gibaut, placed on temporary half-pay. Assistant-Surgeon John George Thornley, M.D., from half-pay, to be Staff Assistant-Surgeon, *vice* Charles Backhouse, resigned. Assistant-Surgeon Henry Thomas Brown, M.D., from the 59th Foot, to be Staff Assistant-Surgeon, *vice* Henry Bradford, appointed to the 59th Foot.

BIRTHS.

Adams.—On October 7, at Ipswich, the wife of Webster Adams, Surgeon, of a daughter.

Cribb.—On October 6, at Bishop's Stortford, Herts, the wife of Henry Cribb, L.R.C.P., of a daughter.

Fairland.—On August 26, at Lucknow, Onde, the wife of Dr. Fairland, F.R.G.S., Assistant-Surgeon 21st Hussars, of a daughter.

Olen.—On August 24, on board the P. and O. ss. *Khedive*, in the Indian Ocean, the wife of the late James Glen, Civil Surgeon, Broach, Bombay, of a son.

Goodrich.—On October 4, at 18, Stamford-villas, Fulham, the wife of Thomas Godrich, M.D., of a son.

McFall.—On October 7, at Sandgate, Kent, the wife of D. Chambers McFall, Esq., of the Army Medical Staff, of a son.

Roberts.—On the 25th ult., the wife of Charles Roberts, M.R.C.S., etc., Uxbridge, of a son.

Roose.—On October 6, at Elmsley House, London-road, Brighton, the wife of E. C. Robson Roose, Surgeon, of a son.

Steele.—On October 4, at St. Marychurch, Torquay, the wife of W. S. Steele, Surgeon, of a son.

Wall.—On October 7, at 2, Burlington-road, St. Stephen's-square, the wife of Reginald Bligh Wall, M.R.C.S., of a son.

MARRIAGES.

Fagge—Robinson.—On October 5, at Waterloo Church, near Liverpool, Frederick Thomas, second son of Charles Fagge, M.R.C.S., L.S.A., Hythe, Kent, to Emily, youngest daughter of the late Joseph Robinson, Esq., of Litherland House, near Liverpool.

Hosford—Butchart.—On October 5, at St. Luke's Church, Westbourne-park, Thomas Stroud Hosford, M.R.C.S. Eng., late of the *Dreadnought* Hospital, Greenwich, to Annie Brodie, widow of James Butchart, Esq., of Melbourne, Australia, and daughter of James Ainslie, Esq., formerly of East Lothian.

Humphry—Hunter.—On October 5, at St. Pancras Church, John Humphry, M.R.C.S.E., of Stone, Aylesbury, to Catherine Jane, niece and adopted daughter of the late C. H. Hunter, Esq., of Edgbaston.

Pottle—Rothwell.—On September 9, at All Saints', Stonebridge, Edgar George Pottle, L.R.C.P., etc., second son of John Rowland Pottle, M.R.C.S., L.S.A., to Sophia, only daughter of T. Rothwell, Esq.

White—Besly.—On October 5, at the parish church, Kingston-on-Thames, Henry Thomas, elder son of George Peter White, to Mary, second daughter of the late Francis Besly, M.R.C.S., L.S.A.

Young—Lawrence.—On October 10, at St. Andrew's, Holborn, Sir George Young, Bart., of Formosa, Cookham, Berks, and of Lincoln's-inn, to Alice Lacy, widow of Sir Alexander Hutchinson Lawrence, Bart., late of the Bengal Civil Service, and daughter of Evory Kennedy, M.D., of Belgard, Clondalkin.

DEATHS.

Bushell, Thomas, M.R.C.S.E., at 117, Crawford-street, Portman-square, on October 5, aged 74.

Evans, Griffith Francis Dorsett, M.D., of The Crescent, Town Walls, Shrewsbury, Physician to the Shropshire Eye and Ear Hospital, of which he was the originator, at Aberystwith, on September 13, in the 82nd year of his age.

Graves, Emma Spencer, the beloved wife of J. S. Graves, Deputy Inspector-General of Hospitals, eldest daughter of the late John Curling, Esq., of Offley Holes, Herts, at Westbourne-park, Bayswater, on October 7.

Glen, James, Civil Surgeon, Broach, Bombay, on board the P. and O. ss. *Khedive*, in the Indian Ocean, on August 20.

Greaves, Augustus Goring, Surgeon, at Derby, on October 1, aged 59.

Ingoldby, Sarah Anna, the beloved wife of Frederick Ingoldby, Surgeon, at 11, Finsbury-square, on October 7.

Maskew, Julia Caroline, the wife of J. S. Maskew, M.D., at The Elcombs, Lyndhurst, on September 26.

PEDDIE, THOMAS ANDERSON, student of Medicine, eldest surviving son of Alexander Peddie, M.D., F.R.C.P. Edin., at 15, Rutland-street, Edinburgh, on October 6.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

CHARING-CROSS HOSPITAL.—Assistant-Physician. Must have a Degree from one of the Universities recognised by the General Medical Council, and must be F. or M.R.C.P.L. Residence within three miles of the Hospital is necessary. Applications and testimonials to Mr. H. Wooleott, Secretary, on or before October 24.

CORNWALL COUNTY LUNATIC ASYLUM.—Assistant Medical Officer. Must be duly qualified. Applications and testimonials to Mr. R. Adams, on or before October 14.

DEVON COUNTY LUNATIC ASYLUM.—Assistant Medical Officer. Applications and testimonials to Mr. T. E. Drake, Solicitor, on or before October 26.

DORCHESTER UNION.—Medical Officer for the Workhouse and Dorchester Districts. Candidates must be qualified in accordance with the General Orders of the Local Government Board. Applications and testimonials to Mr. H. Lock, Clerk, on or before October 26. Election the same day.

DUDLEY GUEST HOSPITAL.—Resident Medical Officer. Must have both Medical and Surgical qualifications, and be registered. Applications and testimonials to the Rev. G. Y. Osborne, St. Edmund's Vicarage, Dudley, on or before October 14.

EVELINA HOSPITAL FOR SICK CHILDREN, SOUTHWARK-BRIDGE-ROAD.—Surgeon. Must be M.R.C.S.E., and be registered. Applications and testimonials to the Committee at the Hospital, on or before October 25.

GREAT NORTHERN HOSPITAL.—House-Surgeon. Candidates must be M.R.C.S. Applications and testimonials to the Secretary, Mr. G. Reid, 46, Great Coram-street, W.C., on or before October 30.

LIVERPOOL NORTHERN HOSPITAL.—House-Surgeon. Must possess both Medical and Surgical qualifications. Applications and testimonials to Mr. J. Unsworth, on or before October 16. Election on the 20th.

MARLBOROUGH UNION.—Medical Officer for the Second District. Candidates must possess the qualifications prescribed by the Regulations of the Local Government Board. Applications and testimonials to Mr. E. B. Merriman, on or before October 16. Election on the 18th.

NOTTINGHAM GENERAL HOSPITAL.—Assistant House-Surgeon. Applications and testimonials to the Secretary, on or before October 24.

NOTTINGHAM GENERAL HOSPITAL.—Resident Surgeon-Apothecary. The qualifications required are as follows:—F. or M.R.C.S. Eng., Edin., Dub., or of the Faculty of Glasgow, and L.S.A. Applications and testimonials to Mr. E. M. Kidd, Secretary, on or before October 24.

POCKLINGTON UNION.—Medical Officer for the Pocklington No. 2 District. Candidates must be duly qualified and registered. Applications and testimonials to Mr. W. Silburn, on or before October 20. Election on the 21st.

PRESTON AND COUNTY OF LANCASTER ROYAL INFIRMARY.—House-Surgeon. Must be legally qualified to practise. Applications and testimonials to Mr. R. F. Easterly, 54, Fishergate, Preston, on or before October 24. The duties will commence on November 9.

ROYAL SURREY COUNTY HOSPITAL.—House-Surgeon. Must be duly qualified in Medicine and Surgery. Applications and testimonials to the Assistant-Secretary, Guildford, on or before November 6.

ST. GEORGE'S, HANOVER-SQUARE, DISPENSARY.—Physician-Accoucheur. Must be M. or F.R.C.P.L. Applications to the Honorary Secretary, 59, Mount-street, on or before October 30. Election the following day.

SHEFFIELD PUBLIC HOSPITAL AND DISPENSARY.—Assistant House-Surgeon. Medical and Surgical qualifications required. Further particulars of Dr. J. C. Hall, Honorary Secretary, to whom applications and testimonials may be sent on or before October 23.

SWAFFHAM UNION.—Medical Officer for the Saham Toney District. Gentlemen applying for this appointment must be qualified in accordance with the General Regulations of the Local Government Board. Applications and testimonials to Mr. R. Sewell, Clerk, on or before October 21. The duties will commence on the 28th.

TIVERTON UNION.—Medical Officer for the parishes of Silverton and Bickleigh. Candidates must be duly qualified in accordance with the Regulations of the Local Government Board. Applications and testimonials to Mr. C. M. Hole, on or before October 16. Election on the 17th.

YORK COUNTY HOSPITAL.—House-Surgeon. Must be duly qualified. Applications and testimonials to Mr. R. Holtby, on or before October 20.

WARMINSTER UNION.—Medical Officers for the Warminster District and Union Workhouse, and for the Corsley District. Candidates must possess the qualifications prescribed by the Local Government Board. Applications and testimonials to Mr. J. Merrick, Clerk to the Guardians, Warminster, on or before October 16. Election the same day.

WEYMOUTH UNION.—Medical Officer and Public Vaccinator for the Melcombe Regis District. Candidates must possess the qualifications prescribed by the General Orders of the Local Government Board. Applications and testimonials to Mr. R. Hare, Clerk, on or before October 23. Election on the 24th.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1861.

RESIGNATION.

Romford Union.—The Seventh District is vacant; area 2793; population 1220; salary £26 per annum.

APPOINTMENTS.

Devizes Union.—Edward N. Carless, M.B. & M.C. Univ. Aber., L.F.P. & S. Glasg., to the First District.

Orsett Union.—Alfred Thos. Roworth, M.R.C.S. Eng., L.S.A., to the Grays District.

Pocklington Union.—Charles E. B. Danson, M.R.C.S. Eng., L.S.A., to the First Pocklington District.

Settle Union.—Francis Green, M.R.C.S. Eng., L.R.C.P. Edin., to the Workhouse and the Settle, Horton-in-Ribblesdale, and Ingleton Fells Districts.

Towcester Union.—Wm. H. Heygate, M.R.C.S. Eng., L.S.A., to the Towcester District and the Workhouse.

West Derby Union.—James A. Harris, M.B. Univ. Lond., M.R.C.S. Eng., as Assistant Medical Officer at the Workhouse for sick poor.

REGISTRATION OF STUDENTS.—The annual registration of gentlemen pursuing their studies at the eleven metropolitan Schools, which was commenced at the College of Surgeons on the 2nd inst., will not be brought to a close until Monday next. At the hour of going to press we find that the number of new entries registered on Thursday evening was as follows, viz.:—Guy's, 78; St. Bartholomew's, 77; University College, 59; St. Thomas's, 48; King's College, 35; the London, 23; St. Mary's, 20; the Middlesex, 10; the Westminster, 9; St. George's, 8; and the Charing-cross, 8. The total number registered is 1039, including first, second, third, and, when necessary, fourth years' men.

MR. FRANCIS KIERNAN, F.R.S.—This gentleman, who was lately a member of the Council and Court of Examiners of the Royal College of Surgeons, has evinced the great interest he continues to take in the Museum of the College, by presenting the whole of his large anatomical collection, formed during a life of untiring industry. The valuable preparations illustrative of the anatomy and diseases of the liver, for which this distinguished member of the Profession obtained the Fellowship of the Royal Society, will be found most interesting.

ASSOCIATION OF HEALTH OFFICERS.—At the first meeting for the season, on October 21, Mr. Liddle will read a paper "On the Intimate Relation between Defective Ventilation and the Mortality from Tubercular Diseases, Convulsions in Children, Teething, Atrophy, and Debility, with a few Practical Suggestions thereon." The meetings are held at the Scottish Corporation Hall, Fleet-street, at half-past seven.

PRESENTATION TO DR. JAMES SAWYER.—This gentleman, who has lately been appointed Physician to the Queen's Hospital, Birmingham, and Extra Acting-Physician to the Birmingham and Midland Free Hospital for Sick Children, has been presented with an address, a microscope, a timepiece, and the publications of the New Sydenham Society (forty volumes), as a "testimony of the high appreciation of the manner in which, for the last three years, Dr. Sawyer had filled the office of Resident Physician to the Queen's Hospital."

CHOLERA PRECAUTIONS.—The Thames Shipping Inspection Committee have now made arrangements for the immediate engagement of a Medical Officer, with a sufficient Staff under him, for the inspection of all vessels in the river and in the docks, should their services be required. The Metropolitan Asylums Board are about reappointing the Medical staff on board the *Dreadnought*, for cholera cases occuring on the river.

HEALTH OF SCOTLAND.—During the month of September the deaths of 2154 persons were registered in the eight principal towns, of whom 1086 were males and 1068 females. This is the greatest number of deaths recorded for any corresponding month since the Registration Act came into operation in 1855, and, allowance being made for increase of population, is 82 above the September average of the last ten years. A comparison of the deaths registered in the eight principal towns, shows that during September the annual rate of mortality was 17 deaths per 1000 persons in Aberdeen, 22 in Edinburgh and in Leith, 23 in Paisley, 25 in Dundee and in Greenock, and 26 in Glasgow and in Perth. Of the 2154 deaths registered, 1047, or 48 per cent., were of children under 5 years of age. In Perth, 31 per cent. of the persons who died were under 5 years of age; in Edinburgh, 43 per cent.; in Paisley 44; in Aberdeen, 45; in Greenock, 48; in Dundee, 49; in Glasgow and in Leith, 52 per cent.

REFUSAL TO APPOINT A MEDICAL OFFICER.—The local authority for the burgher portion of Fraserburgh, at a meeting last week, resolved, by a majority, that no permanent Medical Officer should be appointed, such not being required by the Public Health Act. One gentleman, however, intimated his intention of bringing the matter under the notice of the Board of Supervision.

MR. CORNELIUS BUTLER has resigned his appointment of Medical Officer of the Brentwood Schools, owing, we regret to say, to severe illness arising from an accident. Mr. Wallis, his partner, is an applicant for the appointment.

A COTTAGE HOSPITAL was opened, on Thursday, at Sudbury. It has been built, furnished, and completely equipped at the cost of Miss Copland, of Sudbury Lodge.

Mr. W. H. Corfield, M.A., M.B., has been elected Medical Officer of Health of Islington, in the place of Dr. Ballard, resigned.

The Assistant-Surgeoncy of Chatham Dockyard will shortly become vacant, the period of the present holder being nearly completed.

Lunatic Asylums.—A return just issued by order of the House of Commons, shows that in the various borough and county lunatic asylums in England and Wales on July 1 last there were 31,474 inmates.

Of forty-eight Sisters of Charity tending the small-pox patients in the Bicêtre Hospital at Paris, eleven died of the malady. Volunteers from the Sisterhood were called to fill their places, and thirty-three instantly responded.

Two cases of small-pox have occurred among the women employed in the spinning-loft of the ropery at the Devonport Dockyard, and the Admiral-Superintendent has ordered all the women so employed, as well as the police, to be immediately vaccinated.

Sir James Elphinstone called attention, at the Aberdeen Michaelmas County Meeting, last week, presided over by Lord Kintore, to the desirability of establishing Hospitals throughout the county, on the "cottage" system. The suggestion received the unanimous approval of the meeting, and it was decided that such classified information should be procured as would enable them, at a future meeting, to take action in the establishment of these Hospitals.

The East London Water Company have notified that "It is their desire and—so far as in them lies—their intention to adopt the system of constant supply in all houses supplied by the Company." A code of regulations for preventing waste, misuse, and undue consumption is being prepared by the Company, and as soon as it is approved by the Board of Trade it will be published for the information of the consumer. Arrangements will then be made for carrying out a constant supply; and the Company intimate that it will be the fault of the public if they have any cause of complaint on this head.

Sugar in the Liver.—As the result of his numerous experiments, detailed in a paper upon this subject, read at the New York Academy of Medicine, Dr. Dalton comes to the conclusions—1. Sugar exists in the liver at the earliest period at which it is possible to examine the organ after its separation from the body of the living animal. 2. The average quantity existing in the liver at this time is, at least, $2\frac{1}{2}$ parts per 1000. 3. The liver-sugar thus found does not belong to the arterial blood with which the organ is supplied, but is a normal ingredient of the hepatic tissue.—*Boston Journal*, August 31.

Phosphorus in Wakefulness.—Dr. W. A. Hammond recommends twelve grains of this to be boiled in one ounce of almond oil, and filtered. Half of this is to be mixed with an ounce and a half of gum arabic, adding fifteen drops of some aromatic oil. Of this mixture the dose is fifteen drops, containing one-twenty-fourth of a grain of phosphorus. Three doses are given before bed-time, sleep being generally produced on the second day, if not on the first. The dose may be increased a drop daily until twenty drops are taken, or signs of gastric irritation supervene.—*Boston Journal*, September 7.

Consumption of Tobacco.—A table contained in the recently published reports of the Inspector of the Laboratory of the Inland Revenue, shows that the consumption of tobacco, notwithstanding the proofs to the contrary which may be thought to exist, appears to have been for several years almost stationary. The number of pounds weight of tobacco cleared for consumption in the United Kingdom during the last four years comprised in the table was—in 1866, 40,995,161; in 1867, 41,053,612; in 1868, 41,280,001; and in 1869, 41,719,500, which, estimating the total population of Great Britain and the approximate total population of Ireland according to the percentage increase during the decennial period from 1851 to 1861, would give 1 lb. $5\frac{3}{4}$ ozs. as the weight per head of tobacco so cleared in each of the years just mentioned. One hundred and twenty-five samples of tobacco were examined at the laboratory during the year, and 124 were genuine and twenty-eight adulterated. The adulterants were—sugar, liquorice, and logwood; one sample contained liquorice to the extent of 30 per cent. Of snuff, the report states that twenty-six samples were examined; twelve proved to be adulterated—the adulterants being oxide of iron, alumina, glass, coal, pinewood, fustic, straw, and an excessive amount of sand. Surely these facts disclose a system of adulteration and fraud which calls for the interference of the Board of Trade.

Insanity in Paris in 1870-71.—M. Le Grand du Saulle, who, from his opportunities, speaks with the greatest authority on the subject, states, in an article in the *Gazette des Hôpitaux* (August 31), on "The Mental Condition of the Inhabitants of Paris during the Events of 1870-71," that it is a popular error to suppose that during or subsequently to any of the French political revolutions the number of cases of insanity have increased. They did not do so after the Revolution of 1848, and on the present occasion there have been actually fewer cases of insanity than usual proportionally to the population. In like manner, the number of suicides during the nine months of trouble was very small.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

I. W., Chesterfield.—Try Matthews, Portugal-street, W.C.

Sufferer.—If you cannot afford to pay a fee, go and see a Surgeon at a Hospital. Don't attempt to treat yourself.

A Naval Surgeon, Plymouth.—The leading articles on the treatment of naval Surgeons to which you refer, were published in the *Medical Times and Gazette*, vol. xix.

M.D., Greenwich.—Mr. Busk formerly practised in your borough. He was admitted a Member of the College on November 19, 1830; an Honorary Fellow, December 11, 1843; a Member of the Council in 1863, of the Court of Examiners in 1868, and President last July. He is a Fellow of the Royal Society. Why not invest one shilling in the Calendar of the College, which will give you the desired information?

A Provincial Teacher.—The registration of students now pursuing their studies at the metropolitan Hospitals will not be brought to a close until Monday next; consequently, we are unable to give you the number. We decline troubling the Deans of the respective Schools for a return, preferring the *official* record.

A Medical Centenarian.—Edward Augustus Holyoke, M.D., LL.D., of Salem, Massachusetts, was born August 1, 1728, at Marblehead, Mass., and was the son of the Rev. Edward Holyoke. The extreme age to which he attained—dying March 31, 1829, aged 100 years and 7 months—has been a matter of notoriety at Boston. A memoir of him was prepared, in compliance with a vote of the Essex South District Medical Society, and published at their request—Boston, 1829.

Trinidad.—With the squabble existing between rival Practitioners in Trinidad we wish to have nothing to do. It is a matter of no public importance who is Public Vaccinator so long as he performs his duties properly and efficiently. It matters not what are the real opinions of Dr. Bakewell; all that concerns us in the public interest is, whether, in his report as Vaccinator-General of Trinidad, the following passages appear:—

"The greater portion of the infants under 1 year suffer severely from this cause (fever resulting from vaccination). So much so is this the case, that I vaccinated my youngest child (born in Trinidad) only because I was Vaccinator-General, and felt bound to set an example of obedience to the law. As a private Medical Practitioner, I would have taken my chance of an epidemic of small-pox.

"So far from further compulsory measures being advisable, or even justifiable, *caccination ought to be permissive only, and not enforced by law.*"

These passages are quoted from a petition *now* going round for signature in Trinidad, to be presented to the Governor. We reprint the above passages from the petition, which is given *in extenso* in the *Trinidad Telegraph* of August 30. We understand that Dr. Bakewell does not deny that the above are his opinions. We can only say that it is to be regretted that the beneficent influences of vaccination should be so underrated by a gentleman holding so important a position as does Dr. Bakewell.

The Army Medical Service.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—A gentlemanly young fellow, fresh from Netley, called recently to receive a few hints. Perhaps others, or the fond parents of Medico-military aspirants, would like to read, mark, learn, and inwardly digest a few observations.

The prospect to a beginner is very good: £180 a year offered to the enthusiastic newly fledged Æsculapius, who, unless he has money or a family opening, must go on a sea voyage, together with a cow—drudge as an assistant; warranted sober, able to ride, photograph enclosed—or, waiting for practice, edit a magazine, criticise the labours of others (*vide* "Lothair"), and live on his friends. To rovers a great opportunity is afforded of seeing foreign countries, besides passing a pleasant, indeed a jolly, life. The shoe pinches after. Dr. Gilmore, aged 37, fourteen years' service, income, in addition to quarters, coals, and candles, as a bachelor, £273 15s. (dem the shillings); as a married man, the cash alone. Now, he made many matrimonial ventures, all progressing swimmingly, until the paternal interview and the following dialogue:—"Do you owe money?"—"Yes." "Have you any expectations?"—"No." "Is your life insured?"—"No." "Would my daughter Ellen have to go abroad?"—"Yes." "Will she receive a pension if you die next week?"—"I think not." "Then *I think* we had better say, Good morning."

Well, my young friends, doing your duty rigidly and conscientiously at all times, avoiding contention, strive to gain the good-will and respect of

your commanding officer. It is of no use attempting to force a position; it will probably be conceded in most instances, if deserving. Avoid extravagance in your dress and habits generally. Above all things, do not sink the Doctor to ape the subaltern. Combatant officers have an entirely different groove of pursuits and ideas compared to a Medical man, who, in his Profession alone, has endless inexhaustible treasures to explore. Take short notes of every interesting case; by-and-by the editors of Medical journals will gladly insert contributions considered worthy. As to recreation—field sports, billiards, literature, music, drawing, or the study of languages or natural history may be indulged in at many stations. Drink and women, as of old, are your "Pearl Rocks." No mercy can be extended to a drunken Doctor—a man entrusted with the lives of others. As to women, God help a poor fellow infatuated!—resembling measles, the later in life the severer the attack. Many men live on their pay—indeed, from India have sent home money to indigent relatives. You cannot marry on less than £500; even then, if children come rapidly, some old father, aunt, or sister has to pinch to keep you afloat. And before taking a delicate girl from the country parsonage, think of the wandering life and hot climates.

We should all like to live our years over again, to spend them differently. How you young gentlemen, strong and hearty, are to be envied! Fresh from the schools and special training at Netley, what is to prevent you making a mark in the world, and reflecting credit on the department to which you have the honour to belong?

However objectionable sounding the το εγω may be (a habit that spoils the best literary production), I cannot help saying that, when in health, the only time one feels depressed is when work ceases; and, like Charles Lamb, the dream of home, a wife, and children, changes into the reality of loneliness

Your obedient servant,

A Magenta-nosed Bachelor.

COMMUNICATIONS have been received from—

J. W.; Mr. R. T. Hunt; Dr. Bakewell; Dr. Lowe; Mr. Lawson Tait; Mr. Woodcock; Dr. Whitehead; Dr. Sutherland; Dr. Fayrer; Mr. J. Davies; Dr. R. H. Collyer; Mr. Jayakar; Mr. D. C. McFall; Mr. Gaskoin; Mr. C. H. Savory; Mr. F. Jordan; Mr. Bushell; Mr. C. F. Maunder; Dr. F. R. Hogg; Mr. J. Chatto; Mr. A. H. Allen; Mr. Wm. Carter; Dr. Whitmore; Curious; Mr. F. W. Butler; Dr. A. N. Kidd.

BOOKS RECEIVED—

Watson's Lectures on the Principles and Practice of Physic, fifth edition—Day on a Means of Arresting the Spread of Small-pox—Notes on Lying-in Institutions, by Florence Nightingale—Gant on the Science and Practice of Surgery—Biological Science in Relation to Religious Belief: being the Introductory Address delivered at St. Mary's Hospital Medical School, October 2, 1871—Atthill on the Diseases of Women—Reports of Dr. Parkes and Dr. Sanderson on the Sanitary Condition of the Borough of Liverpool—Fothergill on Digitalis; its Mode of Action and its Use—The Tobacco Question Physiologically, Chemically, and Botanically Considered—Monthly Report on the Health of the Parish of St. Marylebone.

PERIODICALS AND NEWSPAPERS RECEIVED—

Nature—Practitioner, October—Edinburgh Medical Journal, October—The Port of Spain Telegraph—Griffith and Henfrew's Micrographic Dictionary, parts i. and ii.—Indian Medical Gazette—Pharmaceutical Journal—The Staffordshire Weekly Times—The Philadelphia Evening Bulletin—The Melbourne Argus—The Australian Medical Gazette—Medical Press and Circular.

APPOINTMENTS FOR THE WEEK.

October 14. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

16. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Medical Society of London, 8 p.m. Casual Communications. Mr. John Gay, F.R.C.S., "On Crural Venosity." Dr. Richardson, "Preliminary Notes of a Research as to the Possibility of destroying Animals intended for Human Consumption without the Infliction of Pain."

17. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Pathological Society, 8 p.m. Meeting.

18. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

19. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; West London, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

20. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

VITAL STATISTICS OF LONDON.

Week ending Saturday, October 7, 1871.

BIRTHS.

Births of Boys, 1069; Girls, 1100; Total, 2169.
Average of 10 corresponding weeks, 1861-70, 1981·7.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	651	632	1283
Average of the ten years 1861-70	645·4	605·3	1250·7
Average corrected to increased population	...	...	1366
Deaths of people aged 90 and upwards.	...	...	...

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561189	4	4	9	1	8	...	2	2	5
North ...	751668	30	4	7	1	8	...	6	1	12
Central ...	333887	1	1	2	2	2	...	3	1	9
East	638928	12	9	8	...	9	2	4	...	21
South	966132	25	7	12	1	9	2	6	3	33
Total	3251804	72	25	38	5	36	4	21	7	80

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	23·391 in.
Mean temperature	51·9°
Highest point of thermometer	64·8°
Lowest point of thermometer	41·5°
Mean dew-point temperature	45·9°
General direction of wind	S.W.
Whole amount of rain in the week	0·77 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, October 7, 1871, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1871.*	Persons to an Acre. (1871.)	Births Registered during the week ending Oct. 7.	Deaths Registered during the week ending Oct. 7.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3263872	41·8	2169	1283	64·8	41·5	51·9	11·06	0·77	1·96
Portsmouth ...	113450	11·9	79	50	63·2	39·2	52·3	11·28	0·99	2·51
Norwich	80533	10·8	45	49	60·0	36·0	49·7	9·83	0·89	2·26
Bristol	183298	39·1	120	88	...	...	...	...	...	...
Wolverhampton ...	68476	20·2	42	43	59·8	37·5	48·8	9·33	0·89	2·26
Birmingham ...	344980	44·1	239	182	59·3	40·0	49·9	9·94	0·89	2·26
Leicester	95882	30·0	72	52	60·2	38·5	49·1	9·50	0·47	1·19
Nottingham ...	86929	43·6	35	49	61·4	39·2	48·6	9·22	0·89	2·26
Liverpool	494649	96·8	289	284	59·1	41·4	50·1	10·06	2·21	5·61
Manchester ...	356099	79·4	229	238	59·0	41·0	49·6	9·78	2·23	5·66
Salford	125422	34·3	98	88	59·5	38·0	48·4	9·11	2·04	5·18
Bradford	146987	22·3	103	61	57·4	41·2	48·8	9·33	1·04	2·64
Leeds	260657	12·1	100	169	...	...	...	...	...	...
Sheffield	241507	10·6	171	134	58·0	38·0	48·1	8·94	0·77	1·96
Hull	122266	34·3	87	62	58·0	32·0	47·2	8·44	0·44	1·12
Sunderland ...	98797	29·9	71	78	...	...	...	...	...	...
Newcastle-on-Tyne	128677	24·1	75	82	55·0	42·0	46·6	8·11	0·99	2·51
Edinburgh	201728	45·6	126	95	52·7	32·0	45·3	7·39	0·60	1·52
Glasgow	479227	94·7	335	260	54·3	31·4	46·1	7·83	0·74	1·88
Dublin (City, etc.)	310565	31·9	125	134	60·0	33·5	48·1	8·94	0·77	1·96
Total of 20 Towns in United Kingd'm	7204001	33·8	4610	3481	64·8	32·0	48·7	9·30	1·04	2·64

At the Royal Observatory, Greenwich, the mean reading of the barometer in the week was 29·39 in. The highest was 29·72 in. on Thursday morning, and the lowest 29·17 in. on Tuesday morning.

* The figures in this column are the unrevised numbers enumerated in April last, raised to the middle of the year by adding 1-40th of the rate of increase which prevailed between 1861 and 1871. As the population of Dublin and its suburbs showed a decline between the Censuses of 1861 and 1871, the enumerated number in April last has been inserted for that city, the population being assumed to be now stationary.

ORIGINAL LECTURES.

INTRODUCTORY LECTURE TO THE COURSE OF CLINICAL OPHTHALMOLOGY AT ST. THOMAS'S HOSPITAL.

By Mr. R. LIEBREICH,
Ophthalmic Surgeon and Lecturer to the Hospital.

GENTLEMEN,—Ophthalmology was formerly considered a subordinate branch of Surgery. By its astonishing progress, however, during the last twenty years, it has risen to the rank of a separate science. The most eminent Physiologists, Surgeons, and Physicians have, by persevering studies and attention, developed the science and practice of ophthalmology until they have given it a scientific independence. Special studies and special training have become a necessary consequence of its high development.

The Treasurer, the Governors, and the Medical Staff of this Hospital and Medical School have promptly recognised the importance of the subject. With the greatest care and liberality, the Governors have fitted up a special department for the treatment of the diseases of the eye, and for instruction therein. The completeness of all the arrangements of this institution justly entitles us to indulge the pleasant expectation that it will not turn out inferior to similar departments of other general Hospitals, nor even to any special eye infirmary.

I hope, gentlemen, you will be anxious to derive all possible benefit from those favourable circumstances. For some time, however, there will, no doubt, be some difficulties arising out of my incomplete command over the English language; but I trust they will soon be diminished. Indulgence on your part, and my best intentions, assisted by long experience in teaching, will speedily help us over these difficulties.

The teaching of Ophthalmology aims at two widely different objects. The one is merely to give the student a concise view over this part of Medicine, and to impart to him as much knowledge of the subject as every Practitioner ought to have, whatever branch of Medicine he may take up afterwards; the other purposes to educate Ophthalmologists.

The relation of our department to this Hospital and Medical School requires that our principal attention should be directed to the first object—namely, to impart a general knowledge of the treatment of diseases of the eye. I hope, however, that those who may take special interest in this branch of study, and may intend devoting themselves entirely to it, will have every opportunity of doing so, and will always find me ready to assist them in their pursuits. The laboratory attached to this department will afford them the means for original researches, and my ample pathological collection, which I have brought over from my cliniques in Paris, will give them material for microscopical investigations.

A systematic course will be given in the summer session. During the winter I purpose giving clinical lectures twice a week on cases as they present themselves daily in the out-patient department. On Mondays we will analyse cases of more Medical interest, and practise the use of the ophthalmoscope; on Thursdays we will take Surgical cases, and perform the necessary operations.

Now, before I enter into the nature, the course, and the treatment of an individual case, I shall have to draw your attention to the best method of examining your patients. I shall first try to teach you what you ought to learn by looking at a patient before you ask him a single question—how to examine his eyes in ordinary daylight, how to examine them by lateral illumination, and how to use the ophthalmoscope.

In subsequent meetings we shall have to complete this by examination of the refraction, accommodation, acuteness of vision, field of vision, binocular vision, and so forth, for which we require answers from the patient to our questions. I shall bring before you first three patients—one we will examine together by ordinary daylight, a second by lateral illumination, the third by the ophthalmoscope.

In examining a patient in broad daylight I warn you, before all, not to adhere to the widespread practice of taking hold simultaneously of both his eyelids and drawing them asunder, in order to see at once as large a surface as possible. It is, if done by one, sufficiently disagreeable for the patient; and it will certainly be insupportable if done by a larger number of students. But the chief bad consequence is, that the irritation produced by thus handling an inflamed eye increases the hyperæmia, and gives an erroneous impression of the actual state. In inflamed and irritable eyes a similar mode may even prevent you from a successful examination. I advise you, therefore, first to look at this eye at a distance, and then close to it, without touching it, and then to observe the different parts of the surface of the eye by making the patient move the eyeball in the different directions—namely, above, below, to the left, to the right. During these examinations you may gently draw alternately on the upper and on the lower eyelid; only, after having examined the surface of the eyeball in the way just described, you may then evert the eyelids, if necessary, in order to see their inner surface.

In the second patient you will easily recognise in daylight a cataract of his left eye. But in order to distinctly recognise the nature, the consistency, the maturity of this cataract, it is necessary to examine him by lateral illumination.

In a dark chamber we will, by means of a convex lens of two inches focus, concentrate the luminous rays of a gas-flame, placed at the side of the patient, upon the point which we wish to examine. This method allows us to look through the anterior part of the crystalline lens, even if it be not perfectly transparent, to the nucleus, and even to the posterior surface.

In the third patient you will neither by daylight nor by lateral illumination recognise any cause of his blindness. We must take refuge in the ophthalmoscope. Since you have not as yet acquired the necessary practice in the use of this instrument, I will show you to-day the fundus of the eye with my fixed ophthalmoscope. You will see in the middle of the red fundus formed by the choroid a white round spot—namely, the optic disc—from the centre of which emerge the vessels of the retina. The equally white colour of the disc, and the small diameter of the vessels, will indicate to you that the atrophic state of the optic disc is in this case the reason of the complete blindness of the eye.

After having shown you an instance of each of these three methods, I shall now treat more explicitly of lateral illumination. Long time ago the illumination of eyes by means of a convex lens has been occasionally resorted to. But the idea of introducing it into practice, as a systematic method of examination, was conceived by myself after I had become acquainted with Helmholtz's treatise on "Accommodation." One of his experiments showed so clearly the substance of the cornea and the crystalline lens, that I concluded that it must equally well, if not better, show even the slightest cloudiness in the refracting media. The practical application verified my conclusion, and I then combined this method of illumination with a strong magnifying power, a pocket lens, and even a microscope. I finished the first communication I made, seventeen years ago, on this subject, with the following words:—"Such an intense illumination, directed upon a single point by means of a light which can be freely regulated, allows us the minutest investigations. The most practised observer could only in a very imperfect manner recognise, by the most attentive examination, in daylight, such details as the lateral illumination shows with the greatest facility and clearness."

Yet this very clearness is not without the danger, for an inexperienced observer, of over-estimating the alterations so easily observed. Thus, for instance, one who for the first time sees, by dilated pupil and lateral illumination, a senile crystalline lens, may think it to be a cataract. The somewhat lessened degree of equal transparency which is proper to the crystalline lens of everybody in advanced age is sufficient to make its substance very distinctly appear in a bluish-grey colour, even if it seems absolutely transparent by daylight, and for the ophthalmoscope. To get a correct idea of the effect of lateral illumination, let us compare it with a beam of sunlight entering a dark room through a hole in the shut window-blinds. In the bluish-grey stripe which indicates the passage of the luminous ray we can see even the finest particles of dust, and thereby recognise to what illusions common daylight leads us in regard to the purity of the air which we respire. In an analogous way, and even in analogous colour, the cornea, as well as the crystalline lens of the normal eye, are seen by lateral illumination. It is necessary, therefore, to begin observing normal eyes of the different periods of life before studying any pathological changes.

In observing the cornea, it is easy to combine lateral illumination with a strong magnifying power. Here the slightest changes can be recognised with the greatest certainty. The different kinds of cloudiness which, by common daylight, appear of quite identical nature, are easily distinguished; and we are able to state whether they belong to the superficial or to the deeper layers of the cornea. Very extensive opacities

in the cornea may prevent us from observing the iris and the pupillary region; but we can overcome this obstacle by concentrating the light upon the iris without illuminating the opacities of the cornea. Of the utility of this process I shall show you to-day an example. In one patient, with extensive central cloudiness of both corneæ, you will, by concentrating the light upon the crystalline lens, be able to see extensive opacities in the latter, if you look through the non-illuminated part of the cornea. This observation would be impossible by daylight.

In another patient, who, by an injury to his left eye, has got a laceration of the iris and dislocation of the lens, the comparison between his healthy and his injured eye will prove extremely instructive. Whilst in the one eye you see the normal elevation of the iris and the bluish-grey reflex of the substance of the lens, you will see in the other eye the flattened somewhat retracted iris and the perfectly pure black pupil, owing to the absence of the lens. Easier than in the normal eye, you can here look even into the deeper parts of the vitreous body, and there recognise a whitish-grey membrane floating to and fro. By the laceration of the iris the pupil has become so much dilated, that through it, and through the absence of the lens, this case is especially adapted to show how, by lateral illumination of the sclerotic coat, the pupil may be made luminous and the fundus visible without the ophthalmoscope. To these cases I shall add a number of others which will give you opportunity of practising this mode of examination.

Of the two convex lenses usually given with the small ophthalmoscope, you will best use the stronger one to illuminate the eye, the other to regard the illuminated part. You are holding the latter before your eye, and about one inch and a half to two inches before that of the patient. It will be better, however, to begin with simple illumination without any magnifying power. The cornea and pupillary region must be illuminated quite from the side, whilst the observer is looking from the opposite side. The equatorial part of the crystalline lens is also to be illuminated from the side, but it is to be observed nearly in the same direction. For the posterior pole of the crystalline lens and the neighbouring parts of the vitreous body it is necessary to have the light fall a little more from the front. Very different effects of illumination are obtained by somewhat approaching or removing the lens, by shifting it forwards or backwards, and by letting the light fall in a more or less oblique direction. By practice only you can learn how to profit in a special case by the variety of the luminous effects.

LECTURES ON EXPERIMENTAL AND PRACTICAL MEDICINE.

By BENJAMIN W. RICHARDSON, M.D., F.R.S.

ON THE ORGANIC HYDRIDES; WITH AN APPENDIX ON HYDRAMYL AS AN ANÆSTHETIC.

LECTURE II.

(*Concluded from page* 403.)

CAPROYL HYDRIDE.

Synonyms: Hexyl hydride—Hexylen—$C_6H_{13}H$.

ONE other specimen of the hydrides remains in our hands—the caproyl or hexyl hydride. It has a fluid density of ·669, water being 1000; a vapour density of 43, taking hydrogen as unity; and a boiling-point of 154° Fahr. (68° C.). It is insoluble in water. In a previous lecture I showed an experiment with this hydride, and demonstrated its anæsthetic action. I shall be content, therefore, at this moment to offer a brief summary of its action. It is a pleasant vapour to inhale, and it produces sleep when it is inhaled very much as chloroform does. The second degree or stage of narcotism—stage of excitement—is prolonged, and vomiting is not uncommon during th is stage; when the third degree of narcotism is reached, th ere is perfect insensibility. The fourth degree is attended with great muscular prostration, but recovery from the narcotism begins in from three to four minutes, and is usually rapid, no injurious effects being left behind. The temperature of pigeons during the full influence of this anæsthetic falls from two and a half to three degrees Fahr. When a warm-blooded animal, narcotised with the hexyl hydride, is allowed to sleep to death in the vapour, the death, as from chloroform, is almost imperceptible, it is so gentle; the respiration ceases first, but the heart soon follows in cessation of action. After death the lungs are found to be slightly blanched, but the heart contains blood on both sides. The vapour in no way modifies the coagulation of blood, but the colour of the venous blood is rendered darker than is natural, and the arterial blood is also darkened. The corpuscles are not visibly changed. The voluntary muscles retain their irritability for a long period.

I should consider the hydride of caproyl in the light of a narcotic which acts by reducing the respiratory change of blood rather than by direct influence of its own on the nervous centres. In the absence of chloroform it might be used as a substitute for it, and, had it been tried pure in the early days of anæsthetic research, it would possibly have replaced ether.

In order to render more complete the research with the fluid hydrides, I have administered them by subcutaneous injection in several experiments. Introduced into the body in this manner, they are found to be practically negative in their action—a dose, amply sufficient to produce stupor and death by inhalation, being inactive when the agent is carried into the organism by the hypodermic method. Moreover, the local effects are so exceedingly slight they are unworthy of mention. The insolubility of the fluids in the blood, and their negative chemical action, can only account for these results.

APPENDIX.

ON HYDRAMYL AS A GENERAL ANÆSTHETIC.

In the course of the present year, 1871, I have made a new investigation of the amyl hydride as an anæsthetic. I was led to this new, or rather renewed, research by some observations on the effect of the compound anæsthetic ether, when it was being used in the form of spray. I have stated that this compound is a mixture of amyl hydride and rectified ether: and the facts I observed in using it for producing local anæsthesia were, that when it was applied for operations on the nose and mouth the patients often passed into a temporary general insensibility whenever the operation was prolonged. In an operation for cleft palate in a youth, Mr. Christopher Heath being the operator, this general anæsthesia was twice fully developed during the operation. In a case where a small but tedious operation was carried out for removing a piece of dead alveolus, the same event occurred, and even in two cases of simple extraction of teeth it was repeated. The sleep in all these cases was so insensibly induced, was so gentle, so deep, and yet so temporary, it could not fail to attract my attention, and as it was clear the insensibility was due to the inhalation either of the vapour of the hydride or of the ether, I began a series of inquiries as to the part played by the hydride. The labour has been useful in that it has led to the application of hydramyl for producing general anæsthesia with great rapidity for short Surgical operations. To amyl hydride I have given, for the sake of brevity, the name of *hydramyl*. I am indebted for the suggestion of this abbreviation to Mr. Ernest Chapman.

In recommencing the research, I obtained from Mr. Robbins a good specimen of the fluid hydramyl. It had a specific gravity of ·625, and it commenced to boil at 86° Fahr. (30° Cent.). It was nearly inodorous, but to some persons it gave the sense of a faint odour. When breathed it created no irritation, and I found, by breathing the vapour of it out of a bag charged with it to the extent of 60 per cent., that I was almost immediately rendered unconscious, the recovery from the inhalation being singularly rapid. I found, also, that by inhaling it again, as I had done originally, from the simple vulcanite inhaler, the same effects could be produced.

On June 6 I administered hydramyl for the first time for a short operation—viz., the extraction of a firm molar tooth from the lower jaw, Mr. Peter Matthews being the operator. The patient was a woman 30 years of age. I poured into a small vulcanite inhaler two fluid drachms of the hydramyl, and, letting the patient hold the inhaler herself, asked her to take a few deep inspirations. She carried out the instructions readily; and at the end of twenty seconds, as there was distinct evidence of an effect, I removed the inhaler, and asked her to open her mouth. She complied, and Mr. Matthews immediately extracted the tooth. The whole proceeding was from twenty-five to thirty seconds. Within the minute the patient had recovered, and was talking to us consciously. She said, immediately after she commenced to inhale she felt as if she were passing into a natural sleep. She remembered being told to open her mouth, and said she obeyed "as well as she could," but she could recall nothing more relating to the operation; she felt nothing whatever of the extraction. In recovering she had neither vomiting nor nausea, although she had breakfasted a few minutes before; in brief, her recovery was as perfect as it was rapid.

The character of the anæsthetic sleep itself was most satisfactory. It was induced without a movement of any kind; the face retained its natural colour and expression; the pulse underwent no change whatever.

There was in the case this phenomenon, on which I must dwell:—The insensibility to pain occurred before the actual abolition of consciousness. I have observed, with Snow, precisely the same condition from amylene, and have made the fact matter of comment in my reports to the British Association for the Advancement of Science. I have observed the same phenomenon in experimenting with methylic ether, and I do not think there can be a more interesting subject of study.

The metaphysicians, in treating of conscious and unconscious states of mind, have long taught that there may be periods of consciousness with an absence of common sensibility, and the truth of this inference is now sustained by physical facts. In several cases where I administered methylic ether for removing pain in Surgical operations, the patients, when quite insensible to pain, were so conscious they were able to obey every request asked of them; and in some instances were even anxious to reason, stating that they knew what was going on, and arguing that they were not ready for the operation because they were sure they should feel pain. Nevertheless, in this state of mental activity they were operated on, and afterwards, while remembering every incident, were firm in their assertion that they felt no pain whatever during the operation. One patient, who sat for the extraction of two teeth, selected the tooth to be first extracted, putting her finger to it, and afterwards rearranging her position for the second removal. To the looker on it seemed, in fact, as though no change in her life had occurred, yet she affirmed that she was sensible of no pain whatever; and several other less striking, but hardly less singular, examples came before me. We may, then, I think, fairly assume that in course of time we shall discover manageable and certain anæsthetic substances which will paralyse sensation only, leaving the muscular power unaltered, and the mental little disturbed; and we gather from this either that in the cerebral hemisphere there is some distinct and simple centre of common sensation which may be acted upon by certain agents without involving all the cerebral mass, or that the peripheral nervous matter may be influenced without involving the other portions of the nervous system. On the whole, I incline to the view that the action of those agents which destroy pain before they remove consciousness is primarily on the peripheral system; for we know, from the process of local anæsthesia, that it is easy to destroy sensation at the extremities without destroying or even interfering with consciousness, while those who have inhaled the vapours which destroy common sensation before interfering with the mental condition, invariably describe the experience of a numbness and insensibility in the extreme parts of the body.

I offer this theory, wishing, as on all occasions, to enforce the fact only on which it is based. I have said the fact is of importance physiologically; it is of equal importance practically. To have an instrument in our hands by which we can, at will, induce insensibility to pain, with or without destruction of consciousness, as the case before us may demand, means, when it is perfected, an advance second only to the discovery of general anæsthesia itself—a refinement of the art rivalling the art. There are many minor Surgical operations for which consciousness need not be destroyed, although pain ought to be; there are other operations in which the consciousness of the person operated upon is of great service to the operator; and there is a third class of cases in which it is essential to suspend both sensation and consciousness.

What will not, then, be the perfection of our science and of the art that follows it, when we can so master pain at pleasure as to isolate the consciousness from the common sensation, benumb generally, and from within, the periphery of the nervous matter, leaving the grey external matter of the cerebrum undisturbed; or plunge, if need be, consciousness and sensation alike into forgetfulness? Yet this in process of time is certain to be accomplished. It is an advance practically founded at this moment; it waits only for more labour to be made manifest to the world by its daily application.

Returning to the details of practice, I next administered the vapour of hydramyl on June 19 and 24 to three patients for the extraction of teeth, and in both cases with success; but I found a little difficulty, owing to the higher temperature of the air that then prevailed, in retaining the fluid in the inhaler, its lightness and low boiling-point causing it to evaporate with too great rapidity—in fact, a few breathings of the patient emptied the inhaler. I therefore proceeded to an endeavour to meet this difficulty by slightly weighting the fluid with a heavier body, but one having still a vapour density nearly the same and a low boiling-point.

Hydramyl-Chlor.

In making bichloride of methylene, we place a mixture of alcohol and chloroform in contact with pure zinc. On the application of heat there is set up a brisk action, during which an equivalent of chlorine from the chloroform ($CHCl_3$) passes to the zinc, and, after a free escape of gases, bichloride of methylene (CH_2Cl_2) distils over. On my request, Mr. Robbins, while manufacturing some bichloride of methylene, added to the materials in the retort prepared for making the bichloride about eight times the volume of amyl hydride. The result was an immediate brisk action without the aid of heat. A copious stream of gases first passed over, and then, the fluid in the receiver having risen in temperature, there began to distil a compound fluid, very light specifically, and of a most agreeable odour. Collecting some of this fluid, I found it had a specific gravity of ·699, and that it commenced to boil at 92° Fahr. It was much more manageable for inhalation than the simple hydride; was stable, and acted excellently as an anæsthetic. After carefully testing the vapour of this compound, I administered it fourteen times in cases of extraction of teeth, and with results almost identical with those that followed the administration of simple hydramyl.

Finally, in repeating the process of distillation, the first portion that distilled over was set aside, and none was collected until the temperature had reached 90°, the temperature being sustained between that degree and the degree of temperature of the human body (98°). By this means there was obtained a fluid still very agreeable to breathe and extremely rapid in its action. This fluid has the specific gravity of rectified ether—viz., ·725. It boils in the warm hand, and may be considered as containing one part of bichloride of methylene in nine of amyl hydride. I propose to call this fluid "hydramyl-chlor." I administered the vapour of this fluid for the first time for a Surgical operation on July 3. The patient was a young woman, who wished to have a large firm molar tooth extracted. I placed two fluid drachms of the fluid in an inhaler specially constructed for it, and let the patient take the inhaler in her own hand and administer to herself. There was good anæsthesia in forty seconds, and ten seconds later Mr. Matthews took out the tooth without causing the least pain. The recovery was complete within the minute, and was neither attended with vomiting nor nausea. Since this case I have continued to administer the same form of vapour in short operations, and, so far, have every reason to be satisfied with the results. I have administered it to children as young as 4 years, and to adults of different ages up to 70, and of both sexes. Mr. Matthews has also administered it a great many times for tooth-extraction at the Marylebone Dispensary with success equally good.(a)

Method of Administration.

The method of administration I adopt for the hydramyl-chlor is very simple. Messrs. Krohne and Seseman have made for me an inhaler of leather, on the plan of Randall's inhaler for bichloride of methylene. Instead, however, of having the inhaler perforated at the lower part with a number of holes, it is closed there, and is furnished with a light valve for the admission of air. There is also an escape-valve at the upper part. Inside the inhaler is a lining of domette, covered with an inner fold of muslin.

In application I pour one to one and a half fluid drachms of the anæsthetic solution upon the folds of muslin, and apply the inhaler thus charged gently to the face, covering the nose and mouth. The patient is allowed to inhale until there is a movement of the eyelids—a quick restless movement or twitch of the

(a) While this lecture has lain in proof, Mr. Matthews has been good enough to inform me that his experience of hydramyl-chlor has extended to rather more than one hundred administrations. In all these, two cases only have presented a modification of symptoms from what has been related above. In one of these exceptional cases—that of a girl twelve years of age—there was rigidity of the muscles of the jaw as she became unconscious; the rigidity was, however, overcome at once by gentle traction, the operation was painlessly performed, and recovery was immediate. In the other exceptional case, that of a man 23 years of age, who inhaled the vapour for tooth-extraction directly after breakfast, there occurred, when the operation had been performed, and during the restoration of consciousness, a period of faintness. The faintness did not pass into actual syncope, but there was pallor, coldness of surface, and feebleness. A dose of ammonia given to the patient was swallowed, with the effect of exciting an eructation, followed by vomiting of two mouthfuls of partly digested food. The effort of vomiting was instant, and was over in a few seconds. After reclining for ten minutes, the patient got up and walked away recovered. Mr. Matthews will himself report on his cases at length; but I think it right, having the opportunity, to state the above outline of his experience, as a note to this lecture.

lids, without any turning up or other movement of the ball of the eye. This symptom developed—and it is the first symptom that attracts attention in most cases—the inhalation may cease, presuming the operation to be performed is one of short duration. At this period the patient, however, is not unconscious, and is not insensible to pain. Owing to the insolubility of the vapour in the blood, a short space of time is required for the fluid to diffuse; and so it happens that, in eight or ten seconds after the inhalation has ceased, the patient is in a better state for the operation than he is *instantly* afterwards. To the dentist this occurrence is of importance, because he is not placed in condition of hurry—he can often tell his patient to open the mouth, or give other short directions, and then proceed to extract; and he has no occasion at all to use a gag to keep the mouth open. In every case the phenomenon of prolonged action of the anæsthetic after the inhalation has ceased should be remembered by the administrator, otherwise he may narcotise far more deeply than he intended. It is merely necessary to watch for the first signs of involuntary movement; if the hand of the patient holding the inhaler become unsteady, or if the eyelids begin rapidly to move, it is time to suspend the inhalation—to wait a few seconds—to operate. I have stated the quantity of fluid required to be two drachms; but not half of this is, in reality, used by the patient. It is necessary to have an excess, because there is considerable and unavoidable loss. For dentists' practice I think the loss may be overcome by having constructed a fixed receiver for holding several ounces of the fluid —a receiver so arranged that, on removing a stopper for the admission of air and exit of vapour, the vapour above the surface of the fluid may be inhaled from a simple mouthpiece. Messrs. Krohne and Seseman are at this time carrying out a design for me of this kind.

So far, in speaking of administration, I have referred chiefly to adults. In the cases of children and old people I make no difference as to the quantity of fluid used in an administration. I am rather guided by symptoms and duration of administration. If a child be allowed to hold the inhaler, I notice that in a few seconds the indications of sleep are usually unmistakable; we have only to remove the inhaler and proceed to the operation.

Hydramyl-Ether.

The composition of what is called compound anæsthetic ether for local anæsthesia has already been given. I should add that a compound ether, which I name *hydramyl-ether*, for both local and general anæsthesia, may be made by adding together in equal portions pure hydramyl and absolute ether. The specific gravity of absolute ether (·720), the vapour density (37), and the boiling-point (92° Fahr.) are all conditions so nearly allied to those of hydramyl, that the two fluids, hydramyl and ether, act in combination practically as if they were one. They differ only in the matter of solubility in water and in blood—the ether being soluble in the blood to the extent of eleven parts in the hundred, the hydramyl being insoluble.

In the production of general anæsthesia, the vapour of hydramyl-ether acts differently to the vapours we have previously discussed. It is slower in its action, it produces some sense of suffocation, it causes a little darkening of the face, pulsation of the vessels of the neck, and a series of disagreeable but not dangerous symptoms, from which the hydramyl-chlor is free. Nevertheless, it is a good general anæsthetic, and, though less agreeable, would be found, in a large number of cases, *safer* to inhale. I have no doubt it will receive favour, especially as it supplies the requirement for both local and general anæsthesia.

Conclusion.

The study of the physiological action of the organic hydrides has afforded me much satisfaction, and many months of, I will hope, useful labour. Whether any of the new applications that have sprung out of the study, and that I have ventured to suggest, will find favour with the Profession of Physic, remains to be seen: I do myself no more than submit them for their trial. Knowing how sublime is the folly of assuming that whatever a man may offer is good because it is his to offer, I put forward such results as, by reading from nature, I have gathered, without thought of forcing them on my fellows, or anticipating for them a fraction of unproven general experience. If every other Practitioner cannot use the results with profit, as well as I can, they are useless. If every other Practitioner can use one of them, and no more, with profit, I have done a work —little as it in itself may be—which, by multiplication of hands devoted to it, is sure to be a good work: and this is all the earnest man ever can do, though his ambition devour him, body and soul.

ORIGINAL COMMUNICATIONS.

NOTES ON AN OUTBREAK OF TYPHOID FEVER.

By CHARLES MAYO, M.D.,
Fellow of New College, Oxford.

The incumbent of one of our College livings at the north end of Oxfordshire told me some days ago that an outbreak of fever had occurred in his parish. I went down at the first opportunity to see the state of things there, and made a few notes, from which the following are extracts:—

The village consists of three hamlets, two of which are on one ridge, about 250 yards distant from one another, and the third on a parallel ridge about 500 yards south. Subsoil, a brown, friable sandstone; water supply abundant, from springs and wells; population 700, entirely agricultural. A colony of Quakers exists in the parish. The population is backward, and there are several idiots; but the Quakers, although they intermarry a great deal, do not appear to have more than their share of these. The cottages are badly constructed of rough stone, and in many cases are packed much too closely together, or are placed against banks. The atmosphere is highly charged with moisture, though the position is high and the wind fresh. My friend, the rector, says that the damp affects everything within doors. Nothing can withstand it—"not even his sermons." He also informs me that the people are accustomed to go to bed in their clothes. Their habits are evidently far from cleanly. There have been about a score of cases, and six or seven deaths. The disease is a severe form of typhoid fever. The worst group of cases occurred in a double cottage with a common entrance, where, in the right-hand house, the mother had died three weeks ago (the father being already dead of phthisis); and in the left-hand house the eldest son, aged 26, died a fortnight ago, the mother at the time of my visit was lying dead, and the father was at the point of death. Moreover, another son, aged 18, had died last year. The mother, in the latter case, was said to have died of exhaustion and delirium, without fever. All the others were undoubted cases of typhoid fever.

In front of this house was a drain of loose stones, carrying the water from the road close to the foundations. At the back, close under the eaves, was a ditch, into which the inhabitants threw all their slops. The ditch was half-full of filthy water. There was plenty of decaying vegetable matter about. The woman lying dead had been in the habit for years of hoarding up old articles of clothing and fragments of woollen stuffs, of which she kept a large stack in her bedroom—the room in which her son died of fever last year.

The drinking-water for this cottage was obtained from a pump opposite. A drain, bringing the slops from two other cottages, passed close to this pump, the distance from the centre of the pump (which stood over its well) to the middle line of the drain being two feet six inches. The drain was made of rough stones.

Such cases as these seem to offer a strong argument in favour of a system of rural sanitary inspection, as advocated by Dr. Acland at the Social Science Congress.

CASE OF INTRA-CAPSULAR FRACTURE OF THE CERVIX FEMORUS, WITH INVERSION OF THE LIMB.

By J. FAYRER, M.D., C.S.I.

S., a Mahomedan woman, of weak and emaciated frame, and about 60 years of age, was admitted into the Medical College Hospital on March 15, 1871, with symptoms of an intra-capsular fracture of the neck of the right femur, caused by a fall on her hip, in consequence of a false step eight days before admission. An abrasion showed that in falling the hip had sustained violence by contact with the ground. She was unable to stand. The limb was shortened about an inch. On extension and rotation crepitus was perceptible. There was eversion of the foot. The limb was extended and placed on the long splint, and opium was given to allay pain and constitutional irritation; but she could not bear the restraint, and, after more than one trial, the splint was discontinued.

On April 2, the double inclined plane was substituted. Her health failed, she became very low, and the foot gradually assumed a completely inverted position; so much so, that attempts to place the limb in the natural position caused so much restlessness and constitutional disturbance that they were relinquished, and she lay with the limb somewhat flexed at the hip and knee, much shortened, and the toes resting against the tendo Achillis of the left leg.

Good food and stimulants were given, but she made no improvement; her appetite and strength gradually failed. Diarrhœa supervened; and at last she sank from exhaustion, on July 12, 1871, four months after the accident.

A post-mortem examination being made, it was found that the neck of the femur had been comminuted, the head only remaining lodged in the cotyloid cavity. The entire neck, from the articular cartilage to the trochanters, had disappeared, a few small detatched fragments of bone only remaining.

The capsular ligament was disorganised, especially in front. The femur was drawn up, the fractured surface of its upper end being above the cotyloid cavity. The articular surface of the head of the femur remained lodged in the cavity, but the round ligament was gone. The fractured surface was hollowed out and rough, showing a degenerate and oily state of the cancellated tissue. The fractured surface of the other portion was in a similar state. No effort at repair had been made; indeed, the edge of the acetabulus and the upper surface of the femur between the trochanters were in an incipient condition of necrosis. The thigh was completely inverted, the toes of the affected limb pointing behind the opposite heel. The muscles of the hip and thigh were all much wasted and degenerated. The externals were not, apparently, better nor worse than the internal rotators of the limb.

The chief point of interest in this case, which otherwise presents no remarkable peculiarity to distinguish it from others of a similar nature, is the inversion of the foot, that which gradually came on soon after the accident, when the restraint of the long splint was withdrawn, on account of the intolerance of the patient's constitution of its application.

The natural position assumed by the foot in intra-capsular fractures of the thigh-bone is that of eversion, inversion being very rare, and even yet, I believe, not satisfactorily explained. Why the comparatively feeble action of the internal rotators should have been so predominant in this case does not seem clear. Possibly it may have been due to a changed direction of the fibres of some of the muscles, owing to the drawing up of the shaft of the femur, and the absence of its neck, which, when present, is a mechanical obstacle to internal rotation. There could be no doubt, I think, that in this case inversion was mainly due to muscular action, and not to the mere accident of position as a result of violence; for it is to be remembered that the position of inversion, gradually assumed, became permanent, and that when the limb was adjusted it returned to the inverted position, no other being tolerated by the patient. It is possible that, in the great wasting of all the muscles that rapidly resulted in the patient's feeble and emaciated condition, the external rotators, having suffered in the accident, may have become more degenerate than the other muscles of the thigh; and that thus to the ordinary action of the recognised internal rotators was perhaps added that of the adductors, which thus aided in the inversion of the limb. Such, indeed, seems to correspond with the explanation given by Mr. Erichsen,(a) and I am much inclined to think that it was so in the case in question.

The explanation of inversion of the limb in such cases given by Mr. C. Holthouse,(b) in which he concurs with Professor Smith, "that the influence of the muscles in producing inversion is but secondary, the lower fragment being probably thrown, by the violence which produced the fracture, into a position favourable for the action of the internal rotators," is hardly borne out by this case, in which muscular action seemed to play a prominent part in inversion.

Professor Hamilton,(c) speaking on this subject, says—"But those rare examples of fracture of the neck of the femur, both within and without the capsule, accompanied with a permanent or a temporary inversion of the foot, are of more difficult explanation; and indeed a complete solution of this phenomenon does not yet seem to have been satisfactorily reached." Without venturing to offer an absolute opinion on the subject, I would suggest that the following causes may have been potential in causing inversion in the present case:—Total absence of the cervix femoris; shortening and flexion of the thigh, the femur being much drawn upwards and forwards; injury and wasting of all the muscles of the thigh, but more especially of the external, which probably suffered more than the internal rotators; increased action of internal rotators, and probably altered direction of the action of other muscles, especially the adductors.

The share due to each of these causes I do not venture to apportion, though I believe that combined they offer the best explanation of the position.

All who have noticed the subject speak of it as one of great rarity. Professor Hamilton(d) says of it—"In sixty cases of fracture of the neck seen by Cloquet, the foot was never turned in, and Boyer never met with such an example in all of his immense experience; but Lowestoffe, Guthrie, Stanley, and Cruveilhier have each seen one example, and Robert Smith has seen two, I have myself seen one."

I have therefore thought it may be well to place these few notes on record, especially as the case appears to differ in some particulars from others that have been described.

Calcutta.

(a) "Surgery," page 271.
(b) Holmes's "System of Surgery," vol. ii., page 854.
(c) "Fractures and Dislocations," page 354.

ON RHEUMATISM.

THE PRINCIPLES OF ITS TREATMENT.

By J. JAMES RIDGE, B.A., B.Sc., B.S., M.D. Lond.

(*Continued from page* 407.)

In these remarks on the treatment of rheumatism, it is not my intention to discuss statistically the efficacy of the various remedies, nor to decide thus between the rival advocates of mint-water and medicine. Nor am I anxious to prove that alkalies are useless, although they cannot cure by neutralising any noxious acid. Having concluded that we have to deal with a simple catarrhal inflammation of fibrous tissues, I now propose to consider the natural processes for the relief of local inflammation and pyrexia, believing that by such knowledge we shall be best guided to judge of the powers of the remedies which have been employed, and best know when and how to interfere intelligently and efficiently. In the majority of cases there is doubtless no absolute necessity that we should interfere with drugs at all, for in course of time the patient will probably recover alone. If, then, we cannot interfere intelligently, it were surely better to let well alone; but if we can, we are possessed of such influential drugs, and by external means can so powerfully affect the vital processes, that we may legitimately believe that we have shortened or cured the complaint. We shall be able to use our weapons with more precision if we can discover any reason why inflammation often ends in resolution; if we can find out any other way in which inflammation dependent upon the evolution of nerve-energy ceases besides that of simply exhausting the energy in the production of heat and the various associated phenomena. Can the energy cease from manifesting itself as inflammation, and produce some correlated action? If so, can we do anything to bring this desirable alteration about?

That the nerves which preside over arterial muscles, over secretion, and over nutrition can be severally excited by reflex influences, has been abundantly shown by Brown-Séquard and others. But I believe that there is a general law with regard to these nerves which does not seem (as far as I can discover) to have been before recognised and employed to explain pathological processes and guide our treatment, although various approaches to it have been made, and some isolated examples noticed. The law I refer to is this: That an *alternative* or *inverse* relation exists among these various sympathetic fibres, so that, when energy is evolved by the action of ordinary stimuli, it can be successively manifested, and so neutralised or exhausted, either as mechanical work of organic muscles, or as increased tissue-metamorphosis, or as augmented secretion.(e) Very probable in some cases no actual increase of force occurs, but simply a redistribution of the energy normally expended in these three ways, by which it is concentrated into one form of work at the expense of the others, or into two, at the expense of the third. Further, the stimulus, and so the energy, excited,

(d) "Fractures and Dislocations," page 354.

(e) I refer to the watery part of secretions, which holds a very different position from the solid part. The latter, in the form of salivary corpuscles, mucous corpuscles, and some organic and inorganic compounds, seems to be a distinct production from the former, and not dependent on it, or always varying in the same proportion. For example, the two processes are distinct in the kidney; also in the submaxillary gland, where they can be excited separately by the stimulation of different nerves; and probably in other cases also.

may sometimes be so great that it may require all three of these channels to exhaust it.

This law will enable us to explain many singular phenomena, both of disease and of the action of drugs. The facts which seem to establish it are numerous, and many will no doubt occur to all who think over the subject in the light of this law, beyond those which I now adduce.

1. *The alternative relation of the vaso-motor and secretory nerves has been long recognised*—so far, at least, that we are told that, when vessels contract, secretion and nutrition diminish. But this has been attributed solely to the deficiency of blood. Retardation of the activity of secretion or tissue-change, however, does not seem to be any more a necessary consequence of diminution of blood than the opposite condition is of the increase of it. No doubt, in a healthy condition, if the power of effecting contraction of vessel is removed by section of the vaso-motor nerves, one of the other sets, and generally the secretory nerves, quietly compensates for its absence by increased activity. Agents, too, which contract bloodvessels also check secretion. Such is the local effect of the application of cold, and probably of quinine. On the other hand, agents which relax the organic muscles increase secretion; as, for example, opium, and the application of warmth and moisture. But secretion does sometimes take place when the vessels are contracted and the blood is diminished in quantity, as in the phenomenon of cold sweat; and, on the other hand, the vessels of a part may be relaxed to their utmost, and the tissue be turgid with blood, while the secretion is diminished, as in the hot stage of intermittents and of the continued fevers generally. These facts show that the act of secretion is not merely mechanical transudation of fluid from distended vessels; and this conclusion is confirmed when we remember that the consequence of simple vascular distension is a form of œdema, and not perspiration or other secretion. We have, therefore, in secretion of fluid a special elective action on the part of the gland-tissues, the result of a definite stimulus; and this stimulus is usually coincident with relaxation of arterial contraction.

2. *Vaso-motor contraction is alternative with tissue-metamorphosis.* If we apply a mild irritant to a tissue, the first effect usually produced is contraction of its vessels. After a time they relax again, and, if the irritation has been sufficiently intense, the usual signs of inflammation begin to appear. Why do the vessels relax? Some have said it is because their contractile power is exhausted; but in some spinal injuries they can remain contracted for days without exhaustion. In my view, it is due to the concentration of the nerve-energy upon the work of tissue proliferation—its transference from the vaso-motor to the trophic nerves. Some other facts tend to prove this. Quinine usually has the effect of causing vessels to contract; but there are some people whose nervous system is so arranged that the stimulus of quinine produces urticaria—that is, an inflammatory action in place of mechanical work. The cases in which there is passive congestion, associated with diminished vital activity and contracted arteries, also illustrate this condition. In such there often occurs a low form of inflammation, which is immediately attended with more or less active congestion and relaxation of the arteries connected with the excited territories, while the deficiency of blood in the whole neighbourhood chiefly accounts for the asthenic character of the inflammation. If there is complete deprivation of blood, or a near approach thereto, gangrene is the result.

It appears to me that when local bloodletting acts beneficially in reducing inflammation it is a result, at least partly, of this law. For, by abstracting blood from an inflamed part we diminish congestion, and thus stimulate the vaso-motor nerves to a certain extent; the nerve-energy being partially diverted into this channel is for the time, as it were, irresolute in which way to exert itself, and we may in favourable cases thus determine a change of action in the part, which may be able to recover itself completely in consequence of our timely aid. The same principle accounts for the beneficial effects of astringents in local inflammations—such as sulphate of zinc in conjunctivitis, nitrate of silver in erysipelas. In these cases, by a gentle stimulus we induce contraction of vessels, and, if the inflammation is not too intense, we may be able to determine the expenditure of the energy in mechanical work; but if we employ too strong an irritant, the tissues themselves are stimulated, and the inflammation is aggravated.

3. *Inflammatory action is alternative with secretion.* An excellent illustration of this occurs in acute catarrh, nasal or bronchial. The first effect on the mucous membrane is to contract its vessels; this contraction is rapidly succeeded by relaxation, with increased heat, tenderness, and irritability, but also for a time with dryness from diminished secretion. This is followed by proliferation of the mucous elements, and formation of very tenacious and viscid secretion, in which the solid or cellular part is almost solely present. The subsidence of the inflammation is attended with a gradual loosening of this phlegm, the gradual substitution of fluid secretion for the gradually diminished proliferation of imperfectly formed mucous elements. Both the secretion of fluid and the epithelium formation may long continue above their normal amount, and so constitute a chronic bronchitis, or, more properly, chronic bronchorrhœa, associated with degeneration of the membrane and congestion of its vessels. Slight exposures to fresh cold may augment this secretion, severer exposure may thicken it for a time, representing an increase of true inflammation; if more severe still, the secretion may be entirely suppressed, the mucus may be too thick for expectoration, and death will ensue unless secretion is restored. The above examples of alternative action are only a few out of many, but sufficient I think, to show that there is some foundation for so regarding them. The same arrangement seems to exist in other directions and among other parts of the nervous system, among the various fibres of the cerebro-spinal system, and between these and sympathetic nerves—indeed, in one sense, nerves which hold an inhibitory relation to each other may be said to be alternative. This field is wider than our present purpose requires, and has not yet been fully surveyed.

The recognition of this law is especially useful in enabling us to understand the action of some of our remedial agents. I can only glance at a few of these.

Thus, the action of emetics, such as ipecacuanha and tartar emetic, is rendered clearer; and they are drugs which can greatly affect catarrhal inflammation. When given in sufficient quantity they evidently depress the cerebro-spinal nerves, and excite the sympathetic, for they produce lassitude and weakness of the voluntary muscles, the cardiac sphincter of the stomach, which contracts under the influence of the pneumogastric nerves, is relaxed, and the œsophagus, though not exactly relaxed, yet contracts antiperistaltically; on the other hand, the pyloric sphincter, set in action through the sympathetic nerves, is firmly contracted, while the stomach expels its contents. These actions are associated with contraction of other muscles under the control of the sympathetic system: thus, the uterus often expels its contents, the ureters and bile-ducts sometimes expel calculi, the pupil dilates, the heart is accelerated, the cutaneous vessels and muscles contract. The energy of the drug having been thus expended to a certain extent in producing these effects, the secretory system is stimulated to action; speedily all the contraction of unstriped muscle disappears, the vessels relax, and perspiration occurs abundantly. If, however, a poisonous dose has been taken, we do not get this beneficial alternation; the increase of secretion is not associated with any cessation of muscular contraction, and may even be accompanied in some cases by inflammatory action: thus, in tartar-emetic poisoning we get increased secretion from the bowels—hypercatharsis, vomiting, pallor, cramps, and cold sweats all occurring together.

If emetics are given to an extent insufficient to excite vomiting and the other extensive muscular contractions, their influence is directed to the secretory system, the action of which they promote. To this extent they may be useful in certain cases of pyrexia, and in local inflammation, especially of secreting surfaces. When emetics are given at the commencement of fevers and local inflammations any beneficial effect is also the result of this principle: the energy is directed to produce muscular contraction and secretion, and in some cases is entirely diverted into this channel, to the relief of the other symptoms; in other cases only partially.

This law also furnishes a rational explanation of the perplexing fact that some remedies in small doses check actions which they produce when taken in larger quantity. Thus drop-doses of ipecacuanha wine given every hour will often stop sickness—not all kinds of sickness, but especially sympathetic or reflex vomiting. Where vomiting is already present there will naturally be greater sensitiveness to anything which tends to excite it; therefore, to produce an alternative effect, very small doses have to be given, and, since the influence of such will be briefer, they must be repeated frequently to maintain it. By this means one correlative may be gradually substituted for another, although the substitution may not be very obvious to the senses—perhaps because it is distributed over a more extensive area. If this new channel for the dissipation of energy becomes thoroughly established, further prompting by

drugs may be no longer required; in other cases the effect only lasts while we actively interfere.

We can thus understand how some drugs having different actions in different doses may apparently exercise reverse influences, from which facts the hasty generalisation *similia similibus curantur* has been made. We can also see the reason of those peculiar results caused by idiosyncrasy. Thus, ipecacuanha in some persons produces all the symptoms of more or less extensive catarrhal inflammation, not by a different kind of influence, but by stimulating the inflammation-exciting nerves instead of secretory. Such an idiosyncrasy may be permanent or only temporary. It is not improbable that special susceptibility to take cold may be correctly expressed thus: that a stimulus which would, as a rule, be safely neutralised, finds the system so situated that it expends its force upon the trophic nerves, or, being only partly expended in producing mechanical work, and unable from some cause or other to excite secretion, is employed in setting up inflammation. In some slight cases of catarrh, however, there may be only that redistribution of energy among the different fibres which I before alluded to.

If we desire to imitate all Nature's plans for shifting morbid action, we must not neglect also the indications afforded us by the alternative relations which exist between different aggregations of tissue-elements. The reciprocal relations of the skin on the one side, and the kidneys, bowels, and lungs on the other, have been long recognised; but the alternation of their secretions has, I think, been too much regarded as a matter of physics. In the case of the kidneys, diuretics act as such by different methods, and are, therefore, not equally efficacious under all circumstances. Abundant imbibition of fluids will generally produce diuresis; but yet mere engorgement of the abdominal vessels is not sufficient to produce it without the normal or an artificial stimulus. This stimulus can be, and probably generally is, conveyed through the nervous system. It is when such is the case that we have the true alternative action. In the process of diuresis, energy is expended, and this channel can be made to take the place of diaphoresis or its correlated actions. By means of certain diuretics we may be able to determine this as the channel in which the energy shall be exerted; and if our drugs are capable of two actions, and the diuresis fails to be established, they may aggravate the disease. Doubly-acting remedies will be found especially among nervine drugs, rather than among mere mechanical irritants; but some remedies which seem to have two actions (as water, which may cause diuresis or diaphoresis) really only indicate to us the direction in which other stimuli are exerting their influence.

Some purgatives, also, take effect either upon the bowels or the kidneys, or can influence both together. Idiosyncrasy, or special tendency for energy to prefer one course to another, is also observable here: thus, gin will purge some people instead of acting as a diuretic. A similar relation exists between the lungs on the one side, and the skin, bowels, and kidneys on the other—in some cases only seen in morbid conditions.

The conclusion to which all these facts point seems to be, that any form of exhibition of energy in one organ (if not too intense) may be replaced by another or the same form in another organ. I must be content with giving a few instances of this out of many which are constantly occurring. Thus, bronchitis may alternate with eczema and the inflammatory eruption of measles, or with diaphoresis and catharsis, or with the effect of cold on the skin. Inflammatory skin affections may alternate with irritations of mucous membranes, whether natural or excited by arsenic, or with gouty inflammation of the stomach or of the joints, or with those neuralgic affections of the stomach and bowels, associated with much spasm, which sometimes characterise retrocedent gout. Hypersecretion from the bowels may relieve some cases of cerebral inflammation if administered at the proper time; a timely emetic may diminish febrile action. Artificially induced inflammation of the skin will diminish spasm of unstriped fibre, and reduce inflammatory action, and will relieve pain, especially that caused by such spasm and inflammation. Lastly, artificially excited diaphoresis or diuresis will often replace or diminish pyrexia and inflammatory action of various kinds.

If this general law holds good in the spontaneous cure of rheumatism, much fresh light is thrown upon its treatment. The greatest success will be obtained by following Nature's indications, and we shall, therefore, be better able to judge of the real value of the therapeutic agents at our disposal, and shall be guided to a less haphazard employment of them.

(To be continued.)

A CASE OF PROGRESSIVE MUSCULAR ATROPHY.

By C. B. MESTERTON.

(Translated from the *Proceedings of the Upsala Medical Society*, vol. vi., part 4, 1871, by J. W. MOORE, M.D., M.Ch. Dub., L.K.Q.C.P.I., Ex-Scholar Trin. Coll. Dublin.)

Caroline Charlotte J., aged 18, was admitted to Hospital November 2, 1870. About two years previously the patient had fallen heavily on her right shoulder, and for some time afterwards tenderness persisted in the right supra-clavicular fossa, extending out towards the acromion process. No alteration in the position or aspect of the shoulder could at this period be detected, but gradually, without its being possible to assign a fixed time for the occurrence, the shoulder sank, grew continually weaker, and it became more difficult to raise the right arm. The patient, who was obliged to perform very rough and burdensome work, then began to use the left arm exclusively, so that this limb was consequently often overstrained. In the course of a few months the left shoulder also commenced to sink, and the same difficulty and inability to lift the arm above a horizontal line showed themselves. Simultaneously the tenderness in the right shoulder disappeared; in the left the patient had never experienced anything of the kind. A feeling of numbness or pains down the arms had throughout been wanting. The glands at the sides of the neck and in the supra-clavicular fossa had swollen at intervals, but after a short time the tumefaction disappeared; in other respects the patient had enjoyed perfect health, and did her work as well as she could. She had not yet menstruated. When the patient was viewed in front in the standing posture, with her arms hanging down, both shoulders were observed to be considerably sunken, and, besides, somewhat thrust forward. Both clavicles were directed obliquely downwards, outwards, and forwards, the right more so than the left, so that the acromion on the right side stood about six centimètres lower than the sternal end of the bone. The clavicular portion of the deltoid muscle had altogether vanished on the right side, while on the left it was considerably atrophied, so that the anterior part of the acromial portion seemed to form the anterior border of the muscle. The middle and posterior portions, which were strongly developed, gave to the external part of the shoulder-joint its usual convexity. The pectoralis major was also atrophied, yet much more so on the right side. The characteristic movement induced by the muscle in question, of crossing the arms on the chest, was to a large extent limited, and was attended with difficulty. In the right supra-clavicular fossa some swollen glands were remarked.

If the patient was viewed from behind, the abnormal position of the shoulder-blades at once struck the eye. Instead of resting on the posterior part of the thorax, they appeared to be placed on its lateral aspect, and to be rotated in such a way that their outer edge lay horizontally, with the external and inferior angles on about the same level. The inferior angles stood out from the body like wings, an appearance which was still better seen when the patient was viewed laterally. The scapulæ left the greater part of the back uncovered, and their spinal edges, in consequence of the rotation, were convergent downwards. The distance between the centre of the vertebral column and the spinal edge of the scapula was, at the level of the latter, on the right side fourteen centimètres, and on the left twelve centimètres. The rhomboidei were considerably atrophied on the right side, being scarcely noticeable; on the left side they were present, although attenuated. The supra-spinous fossæ were flattened, the right even somewhat sunken. No obliquity of the spine was remarked.

Of the four principal movements which concern the entire shoulder considered as a whole—namely, elevation, depression, forward and backward motion—the first, or elevation, could in some degree be performed: that is to say, so far as to bring the clavicle into a horizontal position. This limitation in movement was due to weakness in the most superior, or elevator, portion of the trapezius muscle. The action of depression (by means of the pectoralis minor and latissimus dorsi) could be normally effected. The power of movement forwards was diminished by reason of the atrophy of the pectoralis major. The backward motion, or that of approximating the scapulæ to each other, was possible on the left side, since by this movement the border of the rhomboideus major is brought into play. As the inferior portion of the trapezius was atrophied also on the left side, the motion in question could not, however, be performed with full effect. On the right

side this movement was quite impossible, in consequence of the complete atrophy of the rhomboideus and of the inferior portion of the trapezius.

The movements of the arms were also considerably interfered with; the patient could not raise them to an angle of more than forty-five degrees from the trunk. In attempting to raise the arm higher she bent the spinal column. In this movement the above-mentioned rotation of the scapula became more pronounced; the acromion sank still further, the inferior angle rose, and approached the spinal column. At the same time the spinal edge of the scapula and its inferior angle diverged yet further from the thorax, so that the wing-like appearance of that bone increased considerably, The superior and internal angle was also elevated, becoming thus on a higher level than the clavicle. The middle portion of the trapezius and the levator anguli scapulæ ran from it like a band along the neck. When it was attempted to compensate the lost action of the rhomboideus and serratus magnus by pressing the scapula against the back, and by bringing the inferior angle outwards and downwards, the patient could lift the arm almost into a perpendicular position. She could bring the left hand up on the right acromion, but not *vice versâ*; crossing of the arms in front of the chest was all but impossible. In attempting to execute this movement, it was achieved—at least, on the right side—merely by the biceps and coraco-brachialis. The muscles whose function was checked or enfeebled were thus on both sides the pectoralis major, the clavicular portion of the deltoid, the superior and posterior portions of the trapezius, the serratus magnus, and on the right side the rhomboideus. In addition, wasting and paresis of the radial extensors of the carpus on the right side were noticed. The patient was unable to abduct her hand, and in a state of rest she kept it adducted. The ball of the right thumb, too, was thinner and more relaxed than that of the left. The patient could not abduct or extend the right thumb, which remained bent and drawn into the palm of the hand. Electro-motor contractility had totally disappeared in the right rhomboideus, as well as in the inferior portion of the trapezius, and in the serratus magnus on both sides. It existed in the other muscles already mentioned, although lessened in intensity. Neither anæsthesia nor pain was anywhere present. The condition of muscular sensibility could not be tested, in consequence of the limited intelligence of the patient.

The treatment consisted in the employment of the continuous galvanic current. The sympathetic on both sides was also occasionally galvanised. On December 16, 1870, as the galvanisation seemed to be without effect, local faradisation was tried. This was persevered in daily until February 21, 1871, and under it some reaction began to show itself in the trapezius and serratus magnus. The patient herself thought that the right arm was somewhat stronger; she could now raise it to a right angle with the trunk. The result on the left side was similar. A violent spontaneous pain, which was increased by pressure, along the great saphenous nerve of the right side, now set in, and confined the patient to bed, for which reason the faradisation was intermitted. On the 25th the pain removed to the right lumbar region, running down the sciatic nerve. Cupping, injections of morphia, and blisters were employed against this symptom, and the pains, which were extremely violent, had, when this was written, considerably diminished, so that it was possible to recommence the treatment by electricity.

On one seeing for the first time this very disfiguring form of progressive muscular atrophy, the disease produces a deep impression, and time is required for one to make himself familiar with all the peculiarities of the case. At first sight the case might have been confounded with the so-called paralysis of the serratus magnus, as described, for example, by Niemeyer(a) or by Moritz Meyer.(b) But in this paralysis (which is probably always a peripheral neurosis, and depends on an interruption to the conducting power of the long thoracic nerve) the serratus magnus is usually alone affected, and its antagonistic muscles (the rhomboidei) largely hypertrophied (Meyer). Recollecting the characteristic signs of progressive muscular loss of power, the correctness of the diagnosis in the present case could not be doubted. This form of loss of power, for instance, much more frequently attacks the upper than the lower extremities. It commonly appears diffusely, so that the atrophy engages several muscles or parts of muscles at the same time; the ball of the thumb and the interossei are usually atrophied, and the complaint advances bilaterally, although not strictly symmetrically. Further, the paralysis and atrophy in this disease do not correspond; for muscles which are to a great extent atrophied react, notwithstanding, both at the will and with an electrical current, while others, which do not as yet exhibit a trace of atrophy, are nevertheless completely paralysed.

It is not so long since we were inclined to regard progressive muscular loss of power as a purely myopathic affection—a paralysis from the alienated nutrition of the muscles, in which the loss of power kept even pace with the muscular atrophy, the latter being looked upon as the primary lesion. To Moritz Benedict, of Vienna, especially belongs the merit of having assigned to this peculiar form of disease its correct place. Already in 1863(c) he had shown that the loss of power did not invariably correspond to the atrophy, that a lessening of or alteration in the electro-motor contractility usually precedes the atrophy or paralysis, that the muscular sensibility is also changed beforehand, and that irritative symptoms in the muscles and in the nerves of sensation often precede the development of the progressive atrophy. He had, in consequence, even then supposed that progressive muscular atrophy was a motor neurosis, and he has since, in his "Electro-Therapeutics" (Vienna, 1868), declared that this was undoubtedly a spinal nerve-lesion, closely allied to tabes, inasmuch as a "new formation of connective tissue and a secondary atrophy, or even a primary atrophy, in the nerve-structures of the medulla spinalis" formed the anatomical basis of the disease. The rapidly progressing atrophy in the attacked muscles, characteristic of the complaint, which may terminate in complete disappearance of the muscular element in a very short time, probably depends on an impaired innervation by the hypothetical trophic nerves, which, perhaps in common with the vaso-motor branches, leave the anterior roots of the spinal cord, to follow the paths of the sympathetic nerves. This view is corroborated by the atrophy of the sympathetic in the neck, which is often observed in long-continued progressive muscular atrophy, and also by the favourable result obtained from galvanisation of the sympathetic, when sometimes in the course of five or six weeks muscles which had quite disappeared are completely reformed. I have myself treated a case, where this method strengthened such muscles in a surprising manner. In the present patient the galvanic treatment of the sympathetic has not produced any result, but it is very well known that in many cases of this affection all treatment is without avail.

(a) "Lehrbuch der Speciellen Pathologie und Therapie," 8th edit., vol. ii., p. 70.

(b) "Die Electr. in ihr. Anvendung auf Pract. Med.," p. 234.

(c) "Wiener Medizinal-Halle."

REPORTS OF HOSPITAL PRACTICE

IN

MEDICINE AND SURGERY.

ST. THOMAS'S HOSPITAL.

OPERATIONS.

The operations on a recent occasion in the male operating-theatre at this Hospital were interesting, two of them as showing to what risk it is justifiable to put the individual in order to remedy some grave local defect, and the others, on the other hand, as illustrating the propriety of removing an organ or limb to get rid of a serious inconvenience, even when the general condition is such as to forbid any hope of a permanent good result. This latter practice, although well recognised, is occasionally dreaded, and an operation which would furnish the only chance of successful issue is sometimes avoided, because of the possible alternative of the operation causing a more rapid death. We remember seeing, some time ago, a young man suffering from disease of the femur with extensive infiltration of pus amongst the muscles of the thigh, who, when brought into the theatre to be submitted to amputation of the limb, was in such a precarious state that it was discussed whether he should not be sent back to bed unoperated upon. The verdict, however, was ultimately against this, the operation was performed, and, after a somewhat slow recovery, he got quite well. Although it is almost unreasonable to anticipate so good a termination in either of the first two cases, yet the course pursued is one to be imitated, and carries great weight with it, owing to the large experience and skill of the Surgeon who operated upon the cases in question.

By Mr. Le Gros Clark.

Chronic Disease of Knee-joint—Suppuration, with Ulceration of Cartilages and Articular Ends of Bones—Amputation of Thigh.

A man, aged 26, of small and delicate frame, with sallow complexion, and looking in the last stage of decline, had been suffering for two years from disease of the left knee-joint. The affection had commenced spontaneously with the symptoms of chronic synovitis, which had rendered him unable to work for eighteen months, and gradually went on to suppuration. The joint was tapped two or three times about twelve months ago, and a quantity of thin, flaky sero-pus escaped. About two months ago pus extravasated upwards amongst the muscles of the thigh, and a large quantity of unhealthy discharge had since continued to pass away. The phthisical appearances of the patient were not fallacious—a large cavity had formed at the apex of the left lung, and signs of tubercular deposit existed on the right side also; but the disease of the lungs was, at the time of the operation, quiescent. Mr. Le Gros Clark observed that, in spite of the general health of this patient, and the unfavourable prognosis which he could not entertain, he had considered it the best treatment to relieve the sufferer from such a source of pain and weakening discharge, and thus to give him the chance of improvement after amputation. The operation was performed by means of the double-flap method, the flaps being of nearly equal size, and formed by transfixion. Mr. Clark's dresser was then allowed to take up the vessels and pass the sutures into the flaps.

Epithelioma of the Penis—Amputation of Penis.

The patient was 69 years of age, and the disease had been noticed six months. It had observed the usual course of such cases, and at the time of operation the upper surface of the glans penis presented a red, coarsely granular or warty elevated surface, which extended backwards beneath the prepuce, and produced a rounded prominent swelling, the size of a large cherry, beneath the thinned and purple-coloured skin behind the corona of the glans penis. The glands in each groin were (though slightly) enlarged and indurated; but this, as Mr. Le Gros Clark observed, was probably due to irritation rather than to secondary occurrence of the disease. Mr. Clark could not hold out any great hopes of permanent success, because in his experience the disease almost always recurred after removal by the knife; still, as removal did undoubtedly for the time relieve the patient of a very offensive and loathsome condition, and gave the only chance possible of exemption from death from this cause, he had determined to amputate the organ. The operation was performed with an ordinary curved bistoury, after fixing a phymosis forceps on the penis behind the diseased portion, and grasping the root of the penis between the fore-finger and thumb of the left hand to control hæmorrhage. The amputation was instantaneous; the arteries were taken up individually and ligatured, and the patient removed from the theatre within a very few minutes. Mr. Le Gros Clark remarked upon the tendency to secondary or reactionary hæmorrhage after this operation, to obviate which he had secured all the bleeding vessels; those ligatured were the two dorsal arteries—the artery of the corpus cavernosum on one side, and a small vessel in the corpus spongiosum. The division was made without the presence of a catheter or bougie in the urethra, and the cut through the urethra was made on the same plane as through the rest of the structures, as Mr. Clark does not recognise any advantage in leaving it longer and stitching it over to the skin.

By Mr. MacCormac.

Two Cases of Excision of the Knee-joint for Chronic Disease of the Cartilages and Bone.

Mr. MacCormac remarked that these two cases were very similar in many respects. In both the disease had existed about two years, and had resulted in such mischief to the joint as to require excision. Both the patients were boys, and of nearly the same age, and in both he expected to find disease of the cartilages and articular end of one or both bones.

Case 1.—In this little patient the leg was anchylosed at nearly a right angle with the thigh, and the tibia was partially displaced backwards. Caries had taken place, and pieces of bone had been passed at intervals through some sinuses, the scars of which were still apparent around the joint. The knee measured one inch and a quarter in circumference more than the other, and was completely spoiled for all functional purposes. Any effort to correct the malposition would, Mr. MacCormac thought, almost certainly promote a new unhealthy action in the part. The disease was, however, at the time quite quiescent. The joint was excised in the usual manner by means of an oval-shaped incision from condyle to condyle, and the patella was dissected from out the flap. A small abscess-cavity was found in the inner head of the tibia, and the wall of this was gouged out. Owing to considerable contraction of the hamstring muscles, a second small portion of bone had to be removed from the posterior portion of the end of the femur, and then the surfaces came into excellent adaptation.

Case 2.—The disease in this case had arisen from an accident six years ago. There was some contraction and flexion of the joint, with considerable tenderness and pain over the inner head of the tibia, which was, no doubt, Mr. MacCormac observed, the chief seat of the disease. The operation was performed in the same way as the other (excepting that only the articular surface of the patella was removed), and the cut surfaces of bone came together as accurately as though they had been planed. Besides a small quantity of pus and grumous material in the soft parts in front, the inner head of the tibia contained a sequestrum the size of a hazel-nut, very close beneath the articular cartilage, which was soft, pulpy, and of a dirty-red hue where it covered in the dead bone.

In each instance the operation was performed under the carbolic spray, and the wound was enveloped in carbolic gauze after the edges had been brought together by carbolised sutures. The splint employed in these cases was the same as that in general use at St. Thomas's for knee excisions, and was very admirably adapted for the purpose. It consists of a long, grooved, straight splint of iron, with a foot-board fixed by a screw, and a cross-piece at the lower end to steady it. It is made to reach upwards to the thick part of the thigh, and is interrupted at the position of the knee, where a straight flat piece passes from the under surface of the lower to the under surface of the upper portion. It resembles, in fact, a straight "McIntyre," interrupted at the knee, and without the screw behind. Into this gap, at the situation of the wound, is passed a piece of stout lead-sheeting, cut nearly in the shape of a Maltese cross, having two of its ends long enough to rest in the grooved leg and thigh portions; the other two ends project laterally, and permit of being turned up to keep the dressing in contact with the wound, but at the same time allowing the escape of any discharge at the angles of union of the transverse with the vertical arms of the cross. By this means the dressing can be changed as frequently as desired, without in any way disturbing the limb, by merely removing the lead-sheeting and its pad, or turning down its lateral ends and withdrawing the pad from between it and the popliteal space. But besides this, in order to steady and prevent twisting of the trunk, a vertical piece, about two inches broad, passes from the outside of the thigh portion, to which it is fixed by a screw, upwards nearly to the axilla; this is padded, and to it, by means of a broad chest-belt, the body is kept attached.

CHARING-CROSS HOSPITAL.

CASE OF SYPHILITIC HEMIPLEGIA, WITH CLINICAL REMARKS.

(Under the care of Dr. SILVER.)

E. S., aged 44, twice married, and the mother of nine children, was admitted into Charing-cross Hospital, complaining of loss of power of the left side. During her former husband's lifetime she was healthy, and her children, born at the proper time, were well-nourished and healthy also. But six years ago her former husband died of consumption, and no long time after she married again. About three months after her second marriage she had a sore throat, which remained bad for some weeks; and on examination cicatricial marks are still to be seen at the junction of the soft palate with the hard. Since that date she has had several times what she calls "boils" come out over her body; and though she has been pregnant six times, she has never been able to carry a child to the full period, usually miscarrying about the third or fourth month. Her health has, however, been fairly good, and she seems well-nourished.

Three years ago she had bad eyes. They were, she says, sore inside, and she had drops introduced into them by way of treatment. Since that time her sight has been bad, especially on the left side, the pupil of which is now considerably smaller than is that on the other, and its iris appears to be fixed.

About ten weeks ago (now October 6, 1871) she began to feel a numbness down the left arm and left leg. The feeling went away in a few minutes, leaving behind it a slight sensation of faintness, which caused her to sit down, but speedily passed off. She was never unconscious. Since that time her left arm and leg have never been so strong; but she could use them

up to the time of her admission, a fortnight ago, though they were daily getting weaker. Since her admission she has got rather worse, and now can hardly move either arm or leg. She has felt some tingling on the left side of the face, but she has never squinted, nor has her face been drawn to one side. Asked to protrude her tongue, she does so readily and perfectly evenly. She can feel quite well on the affected side; but the warmth of a bottle is more readily appreciated with the right foot than with the left. She suffers from pain on the top of her head and forehead, and her memory seems a little confused. Asked to get out of bed, she has to lift her left leg; but, once upright, she can throw it forward from the knee (not by swinging the pelvis merely), and can bear some weight on it; so that by the help of a stick she can progress a short distance. There are sores on both legs and thighs, and the marks of old sores on her shins.

Dr. Silver, in pointing out the case to the students, said:—We have here to deal with an imperfect form of paralysis affecting one lateral half of the body—what we term hemiplegia. This much is apparent to all; but though paralysis be no unimportant matter, it is but a symptom, though a symptom rising almost to the dignity of a disease. It is our duty, therefore, to find out the cause of this symptom—the nature and seat of the lesion which gives rise to this paralysis.

But first let us try to bear this in mind: the paralysis does not arise from anything wrong with the muscles—they are capable as ever of responding to the stimulus of the will—it is the stimulus itself which is wanting. We must seek for the lesion in the nervous system; and, in doing so, we must not forget that in nerve lesions the site of the disease is everything—the kind of disease is, comparatively speaking, as nothing. There are not awanting here hints, so to speak, as to the site of the lesion, at all events, within certain limits. First, then, intelligence is not impaired, and sensation is not lost; she even retains in some degree the power of motion. It is probable, therefore, that neither of the great centres, the hemispheres, the optic thalami, nor even the corpora striata, in which reside these powers respectively, are implicated. Other reasons could be given for the same belief; meantime, let these suffice. Let us, therefore, conclude that the nerve-currents are rather intercepted in their course than stopped at their origin.

But, again, it is plain, seeing that one lateral half of the body is affected, that the seat of the lesion is above the level of the nerves supplying the upper extremities; and as there is neither paralysis of the facial nerve, nor of those which preside over the important functions of swallowing, phonation, and respiration, we are fain to conclude that it must be above the level of the medulla oblongata, where are the centres which preside over these. There is, in truth, but one nerve of the face affected—if, indeed, we can say it is affected at all—and of that only one branch. She complains of tingling in the left side of the face. This may mean something, or it may mean nothing; but, concluding that it does mean something, it indicates interference with the middle branch of the trigeminus. Neither the motor root nor branch is affected, that is plain, for she can move her jaws smartly in any direction; nor is the sensory portion of the same interfered with, for her taste is perfect. The function of the middle portion only is interfered with, and that but to a slight extent. That, however, may give us a hint as to the site of the lesion, which would be far enough down the tract connecting the great centres with the smaller ones—the brain proper with the medulla oblongata and spinal cord—to slightly interfere with the sensory root of the trigeminus, but not with its motor portion. Furthermore, in this case motion is more affected than is any form of sensibility (the sense of temperature seems most impaired); are we, therefore, to conclude that the motor tract is interfered with to a greater extent than is the sensory? Most probably; for though in most cases of paralysis sensation goes last and returns first, it is hardly usual to see such a wide difference between the degrees of interference without some corresponding difference in the seat of the lesion.

But the said lesion, what is it? The symptoms we have been considering are merely the symptoms of *pressure* on a portion of the cerebro-spinal nerve tract: we must try to find out what is the cause of the pressure. As far as the paralysis is concerned, any one of half a dozen things might produce it. Practically, however, we are reduced to two things, with a very strong presumption in favour of one of them. These two are, a blood clot or a gummy tumour—in all probability the latter. No one can listen to such a history as has just been read without being struck with the unmistakable evidences of specific disease supplied by it. Here is a healthy woman, who, during her former husband's life, had borne many healthy children, married to another man not long after the former's death. Within three months she has persistent sorethroat—not a slight quinsy lasting for a day or two, but a sorethroat lasting for weeks, and leaving behind it permanent traces of ulceration. Since that time, though six times pregnant, she has never borne a living child, but has regularly miscarried—she who bore many healthy children before. Furthermore, she has skin eruptions—vaguely called boils—which leave behind them permanent marks. And, as if to crown all, she has had iritis, with adhesion of the iris, and permanent impairment of vision. Such a history cannot but be read in one way: there is but one disease which could produce such a train of symptoms, and that is—*syphilis*. Now, we know that at one particular stage syphilis gives rise to new growths, called gummy tumours or gummata, in various organs. The nervous system is not exempt from—is, indeed, a common seat of—these; and there, in common with other foreign substances, they produce pressure, with its ordinary result—*paralysis*. In this way are produced many of the anomalous forms of paralysis we encounter; but it is not in every instance we have a history so clear as this, which has enabled us unhesitatingly to describe the case as one of *syphilitic hemiplegia*.

And now, what are we to do for the relief of the patient? That, also, if our diagnosis be correct, is clear—at all events, we have acted on it—and here you see the woman is taking thirty grains of iodide of potassium three times a day. This we are accustomed to give with good effect in similar cases, and we hope by its means that in course of time the obstacle will be cleared away, and the nerve-current resume its wonted course. Meantime, we must do something more—we must try to keep the paralysed parts as nearly as possible in a healthy state, so that, when again the nerve-current enters them freely, it may find everything ready to respond to its stimulus. We must try to keep the muscles from degenerating through torpidity; we must try to keep them provided with a due supply of nutriment, and to have their effete particles swept away. This we can only do by exercising them; and to this end we call in the aid of galvanism. By means of the interrupted current we can cause these paralysed muscles to contract at will, and thus we may save them in comparative health to await the hoped-for return of their natural stimulus—the nerve-current set up by the will of the patient. Had we the means, we should prefer to use the constant current; but this for the present must suffice.

HIGHGATE INFIRMARY.

SURGICAL CASES.

(Under the care of Dr. STRETCH DOWSE.)

Chopart's Amputation for Perforating Ulcer of the Foot.

E. D., aged 55, was admitted on February 13, 1871, with an ulcer on the plantar surface of the foot in the metatarsal region. The history was, that some months previously she trod upon a flint stone, which perforated the sole of her boot, and produced an abrasion on the bottom of the foot. For some time she was confined to the house in consequence of the pain it gave her. Ulceration came on, which did not yield to treatment. Upon her admission there was a large irregular deeply excavated ulcer, extremely painful, discharging a thin, unhealthy, putrescent pus, and accompanied with a general doughy swelling of the fore part of the foot. As there was a decidedly syphilitic history, anti-syphilitic treatment was adopted, with no good result. Upon probing the wound, an extensive sinus was discovered, running backwards and upwards, communicating with the cuboid and cuneiform bones, which were roughened. Finding treatment of no avail, Dr. Dowse removed the foot by Chopart's method. The flaps united readily with the carbolic dressings, and the patient has now a good useful stump.

Removal of Necrosed Fibula.

F. S., aged 10, was admitted on May 13, 1871, suffering from an ulcerated leg, for which she had been under treatment for years. Upon examination, the limb was found generally swollen and tender. On the outer side, about the middle, there were two indurated ulcers, from which a fetid discharge with pieces of dead bone made their escape. Dr. Dowse cut down freely upon the bone from the styloid process to the outer malleolus, and removed the entire shaft between the epiphysal ends. The wound was dressed with lint and carbolised oil. It healed rapidly without a bad symptom. The child, who was greatly emaciated before the operation, is now in good health, and has free use of the limb.

Removal of Breast for Scirrhus.

M. F., aged 50, was admitted on August 7 with cancer of the breast, which was non-adherent to the integument. Dr. Dowse removed the tumour, and perfect union followed by first intention without antiseptic dressing. The patient was up, and said she was quite well, five days after the operation.

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Medical Times and Gazette.

SATURDAY, OCTOBER 21, 1871.

ENGLISH AND GERMAN VIEWS OF THE PATHOLOGY OF ADDISON'S DISEASE.

In the year 1855 Dr. Addison first published to the world his paper on the Constitutional and Local Effects of Disease of the Supra-renal Capsules, but several years previously he had read a paper on the subject before the South London Medical Society. In the quarter of a century which has elapsed since the attention of the Profession was arrested by the originality of Addison's observations and deductions, the sands of Medical opinion have been in a shifting state as to the true pathological nature of the disease which bears his name. It is evident from some paragraphs in his original paper that Addison believed that any disease or degeneration of the supra-renal capsules, whether tubercular, cancerous, or otherwise, would be followed by the peculiar train of symptoms which he described. Subsequent observation, however, soon proved that this was a mistake. Cases of cancer of the supra-renal capsules were observed, in which there was no bronzing of the skin; and, on the other hand, cases of discoloured skin were noted, in which, after death, no disease of the supra-renal capsules was detected. On the Continent suspicion was thrown on the whole of Addison's generalisation. German pathologists—and, amongst the latest, Rossbach, of Würzburg—have denied any special connexion between what they are pleased to term Addison's disease and disease of the supra-renal bodies. In this country the labours of Wilks and Greenhow, recorded in the *Transactions of the Pathological Society*, have done much to clear up the difficulties which subsequent observations have grouped round the great English pathologist's discovery; and now, Dr. H. M. Tuckwell has published a masterly paper on the subject in the volume of St. Bartholomew's Hospital Reports which has just appeared. Dr. Tuckwell disposes completely of Rossbach's attempt to relegate the well-defined disease which Addison described to the unsatisfactory group of neuroses—a train of symptoms (*Symptomen complex*) depending on cerebro-spinal disturbance. In the first place he shows that a case described by the German pathologist was not a case in any real degree resembling Addison's disease, it was a case of scleroderma of the skin, with fatty degeneration of the heart and kidneys; and secondly, he answers the objections—"that the train of constitutional symptoms and the bronzing may be present without capsular disease, and that disease of the capsules has often been found after death, without any general symptoms of bronzing having manifested themselves during life"—by insisting on the fact now pretty firmly established by the labours of Wilks and Greenhow—viz., that it is not every alteration or degeneration of the supra-renal capsules which is associated with bronzed skin and debility ending fatally, but one peculiar pathological condition, which, whether it be termed scrofula or tubercle, he describes as "active hyperplasia of fibrous tissue and cells, followed by caseation." Dr. Greenhow first pointed out that Addison's disease is due, in a hitherto quite unsuspected degree, to the extension of inflammation to the capsules from diseased or injured adjacent parts, in persons of a tubercular diathesis. Enlarged glands are commonly enough found round and about the capsules, and evidence of old inflammation in the abdomen and of miliary tubercle and cheesy deposits in the lungs and elsewhere is frequently to be obtained. But there is still a farther step in the pathology of this disease. Wilks and Habershon have pointed out that the sympathetic plexuses surrounding the diseased capsules are implicated in true cases of Addison's disease, and they are disposed to refer the symptoms rather to the implication of the sympathetic branches than to the diseased condition of the capsule itself. In three cases out of four dissected by Dr. Tuckwell, he found thickening extending from the surface of the capsule to the supra-renal plexus, the semilunar ganglion, and thence up the great splanchnic nerve. In the fourth case, enlargement of the neighbouring glands interfered with a satisfactory dissection of the nerves. The thickening was rather an hypertrophy of the fibrous investment of the nerves than an alteration of the nerve-fibres. The observations of Dr. Tuckwell, therefore, go to confirm the opinion of Drs. Wilks and Habershon, and they have great interest in connexion with the influence which the nervous system seems proved to exert over cell-nutrition, and especially pigmentation. The experiments of Lister, which showed that in frogs the nerves of a limb exert direct influence on the pigment cells of the skin, the observation of sudden pigment-changes in the hair and skin under the influence of mental emotion, and the bronzing of the skin in Addison's disease, where the sympathetic system is profoundly implicated, may perchance be all phenomena governed by the same physiological law, and may perhaps point to a path hitherto unsuspected by both physiologist and pathologist. The interest of Dr. Tuckwell's valuable paper is not lessened by the fact that a national and pardonable feeling is aroused by attempts to detract from the value of the most remarkable generalisation of a great English pathologist.

HOMŒOPATHIC DEFINITIONS.

Again what in Scotland they would call our "kittle"-tempered contemporary, the *Homœopathic Review*, is wroth with us; but really this has happened so often that we begin to think it possible to survive *several* attacks of the kind. "Well, what is the matter now?" one says; and we reply it is the old cry, "They are misunderstood and they are misrepresented." Some little time ago—on the occasion of a squabble among themselves—we took occasion to remark on a new profession of faith on the part of the apostles of homœopathy. They told us that specific medication and homœopathy were one and the same; we took the liberty of denying the accuracy of the statement. Most of us so-called allopaths have been accustomed to treat certain diseases specifically, and yet we are not quite prepared to accept the homœo-

pathic creed—still less the universal treatment of disease by means of milk-sugar. One remembers giving mercury in syphilis, prescribing sulphur ointment for itch, giving a dose of colchicum for gout, and so on; but, with all due deference to our homœopathic brethren, that was done before Hahnemann was heard of. It is one of their pleasant delusions that nobody knows anything about homœopathy save those who practise it, and that we poor journalists are, above all others, ill-informed on the subject. Does it never strike them that it is possible to study homœopathy and deliberately reject it? People nowadays do read works on alchemy and astrology, and "Moore's Almanac," with the prophecies of Zadkiel, without necessarily believing them. So of homœopathy. Homœopathic works are not absolutely convincing, nor, let us add, altogether reliable—witness, as honest homœopaths do admit, Hahnemann's highly imaginative "Materia Medica Pura." We have studied these works as far as they deserve study, and we have come to the conclusion that its principles are false—its practice either a delusion or an imposition. We do not deny that the physiological testing of remedies is good; nay, we will say this: their mode of preparing mother tinctures might be usefully adopted for general use—it is better than ours; but if a man talks to us of the wonderful effects of the 800th dilution of anything, be it what it may, we can only look on the individual as an idiot, or something worse. Why, the atmosphere we breathe in town must habitually contain a proportion of almost all mineral substances, including arsenic, infinitely greater than this, and yet its medicinal effects are not particularly striking. The thirtieth dilution contains only an infinitesimal portion of the mother tincture or solid substance, but the 200th or 800th dilution we simply cannot conceive, nor the possibility of making it, still less its effects. When, moreover, the original substance is inert, or nearly so, this subdivision must deprive it of any force it ever possessed—except we suppose that the mechanical work of triturition adds to its efficacy—a superstition we are not inclined to adopt.

They tell us it is the patient that must be considered, not the disease. This to us is no new doctrine, for it is one we have long taught and practised; but when we are told that quinine is homœopathic to ague in some individuals, and not in others, we again beg leave to hint that this is new ground for homœopathists. We are told that Dr. Bayes found quinine homœopathic to the majority of cases of ague in Cambridgeshire: and we are compelled to say that this is not in accordance with homœopathic doctrines. Homœopathy allows a man to acquire a certain expertness in selecting an appropriate remedy for a disease, but it does not permit the acquisition of experience as to the effects of a remedy in diseased states. It is a fundamental doctrine in homœopathy, that, to acquire a knowledge of the effects of any drug, it must be studied in the healthy subject. The totality of its symptoms are noted down, and from them it must be judged whether the drug is *simile, similius, or similime* to a given sample of disease. To say, therefore, that experience shows a given substance to be homœopathic to a given disease is clean contrary to Hahnemannian doctrines. True, it may be specific; but it would not suit our friends to admit that it was specific without being also homœopathic. They desire to make use of the remedy, and strive to get it into their system, which, provided they adhere to their original dogmas, they cannot honestly do. This is why they would fain make specific medication and homœopathic medication one and the same thing. This is why they tell us a specific must also be homœopathic; but we could easily point out a dozen remedies which are specific in certain diseases, but which do not produce any symptoms at all resembling that disease in the healthy individual. When homœopathic professors have disproved what has been publicly stated as proved by Jörg, by Rogers, and by Carroll, of New York, we may care to meet them again on this ground; meanwhile it would be a waste of words.

THE WEEK.

TOPICS OF THE DAY.

Dr. J. W. Ogle, of St. George's Hospital, has been appointed Inspector of Anatomy in England and Wales, in place of the late Dr. Cursham.

The article in a Medical contemporary to which reference is made by Dr. Cayley in a letter which we to-day publish, has given rise to a feeling of natural and just indignation amongst the staff and students of the Middlesex Hospital. Dr. Cayley's letter renders it scarcely necessary for us to say that there is not one word of truth in the insinuation that the Middlesex Hospital has become a mere secondary establishment to University College, or that the former is anxious to receive and provide for the students who overflow from Gower-street. The Middlesex Hospital has an independent and excellent school attached to it, and it has never lacked, and is not likely to lack, pupils to fill its vacant offices.

Professor Balfour, as Dean of the Medical Faculty of the University of Edinburgh, has been under the unpleasant necessity of notifying to the female Medical students, who have recently disturbed the Northern Medical world, that their names and their fees have been received in error for the First Professional Medical Examination, which takes place in the present month. He adds, that the Faculty cannot receive them for such examination without the sanction of the Senatus Academicus. As well-wishers to the University, we can only hope that the sanction of the Senatus Academicus will never be given. If it be given, we shall confidently expect that the male students will migrate, and leave the female to graduate by themselves.

No one can read Mr. Erichsen's recent letter in the *Times*, on the piracy of his book by the American Government, without indignation. In the American civil war the American Government furnished the Medical staff of the army with 58,074 volumes of Medical works. The two principal items on the list were Mr. Erichsen's "Principles of Surgery" (5370 copies) and Bumstead on "Venereal Diseases." These copies of Erichsen's "Surgery" were not one of them supplied by the publishers of that work in this country; they were, in fact, an American pirated edition, and a robbery of Mr. Erichsen to the amount of from £2800 to £3000. Mr. Erichsen wrote a most courteous letter stating the facts of the case to Mr. Adams, then Minister of the United States in this country, and received a reply, in which the Minister said he had great pleasure in transmitting Mr. Erichsen's letter to America. He added—"The question of international copyright is one which has been already much discussed in America, but I doubt whether the period for successful negotiation about it has as yet arrived. This is certainly an argument in point." There the matter has been allowed to remain for the five years that have elapsed since the correspondence. No answer has been returned from the American Government. Meanwhile, Mr. Erichsen has the barren satisfaction of knowing how highly his work on Surgery is esteemed in America.

Several of the papers read at the recent meeting of the Social Science Congress at Leeds have been of special Medical interest. Mr. Dalby, the Aural Surgeon of St. George's Hospital, communicated one on "The Education of the Deaf and Dumb by means of Lip-reading and Articulation"; and he was followed by Mr. Van Praagh, who has lately introduced the lip-reading system into England, and who was accompanied by Mr. Polano, of Leyden, a deaf and originally dumb gentleman, who readily conversed with anyone who spoke the languages which he had learned. The remarkable success obtained by this method was made a principal topic in Sir John Pakington's concluding address. Mr. Dalby, in his paper, stated that—

"The education of a child by 'lip-reading and articulation' commences at the age of 7, and eight years are required before general conversation can be read from the lips of those who

speak with no more than ordinary clearness and precision. The time occupied is considerably more than for the ordinary English system; but Mr. Dalby argued that this disadvantage was one to which only small weight should be attached, when it was considered that the pupil was enabled to understand and speak the language of the many, while a deaf-mute who is dependent upon manual signs possesses only the language of other mutes, and of the comparatively few persons who have acquired the art of conversing with them. It appears to be quite impossible to combine the two systems; for it is found that a deaf child who can make himself understood by his fingers will not have perseverance to acquire the art of speaking in the ordinary way. Nearly twice as many teachers are required by the new system; but great experience is only needed from those who undertake the commencement of the instruction."

Mr. Polano's facility in comprehending others and speaking was put to the test by a gentleman named Huth, who spoke German to him in the presence of the meeting. Mr. Huth wore a heavy moustache, but nevertheless Mr. Polano was able to understand with ease and answer intelligibly. Mr. Van Praagh conducts a school for deaf mutes, on the lip-reading system, at 164, Euston-road. Dr. A. P. Stewart read a paper "On the Progressive Degeneracy of Race in the Town Population of Great Britain." He based his conclusions on the returns of the army, which showed an increasing number of rejections of recruits on account of physical unfitness, and on the inferiority of the class of men admitted into the ranks of militia regiments. Increasing dearness of food, intoxicating drinks, indoor employment, and overcrowding and bad house accommodation are the causes which, according to Dr. Stewart, are rapidly sapping the vigour of the English race at home.

Dr. Foster, the new Fellow of Trinity College, Cambridge, is the first Physician elected a Fellow since the passing of the Act for the Abolition of Tests; but for the passing of that statute he would have been ineligible for election. He is a graduate of Medicine in the University of London, but has had the honorary degree of M.A. conferred upon him by the University of Cambridge. He is Prælector in Physiology at Trinity College, and the distinction of the Fellowship has been conferred on him on account of scientific merit.

The post-mortem in the case of the Stockwell murder was conducted by Dr. Rugg, who was sent for when the catastrophe was discovered, Mr. Edward Pope, the divisional Surgeon, and Dr. Samuel Day Goss. They found extensive wounds of the head, fracture of the skull, and extensive extravasation of blood between the convolutions and at the base of the skull. The liver was small and cirrhotic; the stomach contained half a pound of partially digested food; the kidneys were small, flabby, and congested. There were bruises about the body. Dr. Rugg deposed at the inquest that in his opinion the pistol which was found with blood-stains upon it might have produced the wounds.

The fatal cases of small-pox in London last week were 61. In the previous three weeks they had been 89, 51, and 72. There were 69 deaths from diarrhœa, of which 58 were of infants. The deaths from diseases of the zymotic class were 271, against 333 and 288 in the two preceding weeks. Deaths from measles and the various forms of fever had slightly increased, whilst those from small-pox, diarrhœa, scarlet fever, and hooping-cough had declined.

MR. HOLMES COOTE.

THE Profession will hear with deep regret that Mr. Holmes Coote, now Senior Surgeon to St. Bartholomew's Hospital, has, at this early period of the session, been compelled to desist from his labours. His health is in such a critical condition that absolute rest of body and mind are necessary for the time being. This loss will be seriously felt at St. Bartholomew's, and Mr. Coote will have with him the sympathies of all St. Bartholomew's men.

UNION AND PAROCHIAL MEDICAL OFFICERS UNDER THE REGULATIONS OF THE LOCAL GOVERNMENT BOARD.

MUCH doubt often exists as to the qualifications necessary for these officers. Inquiries constantly received show the need for a clear understanding on this subject. The regulations require that to fully qualify a person to be appointed to the office of Medical Officer he shall be qualified by law to practise both Medicine and Surgery; this being established by the production "of a diploma, certificate of a degree, licence, or other instrument granted or issued by competent legal authority in Great Britain or Ireland." As a guide to candidates we give a list of the several Colleges, Societies, and Universities, with the nature of the qualification or qualifications which each bestows—

Name of Authority granting the Qualification.	Nature of Qualification.
The Royal College of Physicians of London	Licence in Medicine and Surgery.
The Royal College of Physicians of Edinburgh	Licence in Medicine.
The King and Queen's College of Physicians in Ireland	Licenee in Medicine.
The Royal College of Surgeons of England	Licence in Surgery.
The Royal College of Surgeons of Edinburgh	Licence in Surgery.
The Faculty of Physicians and Surgeons of Glasgow	Licence in Surgery.
The Royal College of Surgeons of Ireland	Licence in Surgery.
The Society of Apothecaries, London	Licence in Medicine.
The Apothecaries' Hall, Dublin	Licence in Medicine.
The Queen's University in Ireland	Degree in Medicine and Surgery
The University of London	Degree in Medicine and Surgery.
The University of Edinburgh	Degree in Medicine and Surgery.
The University of Dublin	Degree in Medicine and Surgery.
The University of Oxford	Degree in Medicine.
The University of Cambridge	Degree in Medicine and Surgery.
The University of Glasgow	Degree in Medicine. Degree or Licence in Surgery.
The University of Durham	Licence in Medicine and Surgery.
The University of St. Andrews	Degree in Medicine.
The University and King's College, Aberdeen	Degree in Medicine.
The Marischal College and University, Aberdeen	Degree in Medicine and Surgery.

This list, we believe, includes all the qualifications at present recognised by the Local Government Board. Should we, however, have omitted any which that Board or the Poor-law Board have recognised, we shall be glad to rectify the omission.

MEDICAL CLERGYMEN.

SOME weeks since we stated that the Bishop of Kingston, Jamaica, had determined, on the presentation of a memorial numerously signed, to ordain Mr. Hugh Croskery, M.R.C.S. Ireland, to the order of Deacon. Accordingly, on Sunday, September 17 last, this determination was carried into effect with some ceremony. The morning prayer was said at 7 a.m. The ordination service commenced at 11 a.m., with a sermon from the Bishop. The text was well chosen—"Preaching the Gospel of the kingdom, and healing all manner of sickness and all manner of disease among the people." The sermon was most eloquent and interesting, and the preacher dwelt at considerable length on the compatibility of the duties of a Physician with those of a clergyman. The ordination has excited much interest in Jamaica and the other West India Islands, and it is rumoured that other Physicians may possibly be ordained. Without disputing the compati-

bility of the duties of Physician and clergyman, we doubt the policy of this combination. In China and some other places Medical missionaries have undoubtedly effected much benefit amongst their patients. The Chinese and others could see and appreciate the value of medicines judiciously employed, or the relief afforded by a well-performed Surgical operation. But the religious labours of these Medical missionaries have hitherto not been so well rewarded as was anticipated. We can readily believe that the influence of the successful Physician may pave the way for the teacher of religion, and procure him a more favourable hearing.

NEW CORONER'S COURT, DUBLIN.

A BOON has been conferred on the citizens of the Irish metropolis by the recent opening of a Coroner's Court and offices. The situation of the building—a substantial stone edifice—in which they are located is most convenient, being in close proximity to the river Liffey, and almost in the centre of the city. On passing through the main entrance, the visitor finds himself in a lofty hall, with a tiled pavement. To the left are the coroner's private room and the post-mortem chamber. The latter is well supplied with the necessary fittings; but in the matter of both lighting and ventilation there is room for improvement. The operating-table consists of a massive slab of black marble, which is hollowed gradually from all sides towards the centre, where a small grating allows fluid to pass into a syphon-pipe communicating with a sewer. Turning to the right of the entrance, we reach the morgue, which is intended for the reception of three corpses. With the situation of this chamber some fault is to be found. It is on the ground-floor, in the south-western, and consequently the warmest, corner of the building, and the ventilation is not all that can be desired, there being windows on but two sides of the room. The dimensions of the morgue, too, are comparatively small. The fittings are, however, very good. Three tables of black marble, supported on granite blocks, are intended for the reception of the dead. At the head of each is a water-spray. Unfortunately, the tables are not, as that in the post-mortem room, hollowed towards the centre, nor fitted with a grating and drainage-pipe. In consequence, the water must drip from the sides of the tables on to the floor, and thence escape by a single gutter at some distance off. Besides the rooms already described, there are urinals and water-closets on the same floor. The Coroner's Court is reached by several flights of stairs. It is nicely fitted up, well-lighted, and has a good, though a one-sided, system of ventilation.

PURE CARBOLIC ACID FOR MEDICINAL USE.

MR. CHURCH, the well-known chemist, calls attention to a method of preparing pure carbolic acid by a method laid by him before the Odontological Society eleven years ago. The best preparations of the acid of commerce are so seldom free from a disagreeable gas-like odour, entirely foreign to carbolic acid itself, as to render the use of the acid in dentistry, and as an application to the throat, objectionable. Mr. Church's method of depriving the commercial article of all naphthalic odour is so simple, and can be so readily employed by the country Practitioner, that we gladly give it greater publicity than it has in the pages of the *Chemical News*. One pound of the best carbolic acid of commerce (the white crystallised acid) is poured into two gallons of cold distilled water, taking care not to permit the *whole* of the acid to enter into solution. With a good sample, if, after shaking repeatedly at intervals, between two and three ounces of the acid remain at the bottom of the vessel used, this will be a sufficient residue to hold and contain all the impurities; with bad samples, less water must be used, or more acid. The watery solution is to be syphoned off and filtered, if necessary, through fine filter-paper till perfectly clear. It is then placed in a tall cylinder, and pure powdered common salt added, with constant agitation, till it no longer dissolves. On standing, the greater part of the carbolic acid will be found floating as a yellow oily layer on the top of the saline liquor, and merely requires to be removed to be ready for use. As it contains 5 per cent. or more of water, it does not generally crystallise, but it may be made to do so by distilling it from a little lime. The portion collected up to about 365° Fahr. has at ordinary temperatures scarcely any odour, save a faint one resembling that of geranium leaves; and advantage may be taken of this curious resemblance still further to mask the slight odour proper to absolutely pure carbolic acid, by the addition to it of four drops per fluid ounce of the French oil of geranium. This addition has the advantage of liquefying the pure crystallised product. The pure acid may be dissolved in 230 parts of water, and used as a gargle; or in 25 parts of water for painting the throat, or in 50 parts for the carbolic spray. We are sure that the Profession will thank Mr. Church for the introduction of such a simple method of depriving this invaluable agent of its disagreeable odour.

MEDICAL BURSARIES.

COMPARED with the Church, Medicine is lamentably deficient in the aids she receives from bursaries. With one or two exceptions, the English universities have no "exhibitions" for Medical students. Scotland is not in a better position in this respect. It is satisfactory to record that at the half-yearly meeting of the General Council of the University of Aberdeen the subject of bursaries was discussed. Mr. C. C. Brown, in giving in the report of the special committee appointed at the last meeting, relative to Medical bursaries, said the committee was of opinion that the best method of proceeding would be to have a statement drawn up setting forth the great want of bursaries in the Medical as compared with the other faculties in the University, and at the same time indicating the conditions under which such bursaries would be most likely to prove useful. With respect to the latter point, the committee was of opinion that any such bursaries should be open to all, and given by competition; the competition, while embracing the parts of general education, should give prominence to natural science. The committee further recommended that after two years the tenure of such bursaries, for the remaining two years of Medical study, should depend on a satisfactory examination being passed in the earlier branches of the Medical curriculum. The report was unanimously adopted. If the recommendations of the committee be carried out they cannot fail to be of considerable service to the Profession.

THE PATHOLOGICAL SOCIETY.

THIS Society met for the first time this session on Tuesday last, with a goodly attendance of members. In the absence of Mr. Hilton, the chair was taken by Mr. Holmes, and Dr. Murchison did duty for Dr. Dickinson as Medical Secretary. Some very interesting specimens were exhibited, especially one by Dr. Green, of interstitial inflammation of the liver in a child; aneurism of the heart, by Drs. Peacock and Murchison; enlarged lymphatic glands, by Dr. Payne; and certain specimens of hydatids of the peritoneum, which had been removed by Mr. Spencer Wells from the patient's abdomen, with apparently good results. We hope the Society will have a successful session.

THE CLINICAL SOCIETY.

THE Clinical Society resumed its sittings on Friday, the 13th, the President, Dr. Gull, in the chair, when the proceedings partook somewhat of that undue solemnity which has of late characterised its meetings. On taking the chair, the President made some remarks on the work of the Society, which, if somewhat paradoxical, were nevertheless good. He pointed out how useful isolated bits of clinical work might be made, even if not necessarily tied to the history of one or more cases.

Three interesting papers followed—the last, by Mr. George Lawson, exceedingly practical, though giving rise to a theoretic discussion on the local or constitutional origin of cancers. The text was, the use of zinc chloride after the removal of cancerous or malignant growths, especially of the eyeball. Mr. De Morgan pointed out that the practice, though good, was liable to be followed by epileptiform convulsions. For the sake of those members who do attend, we hope that the meetings of this Society will be characterised by a little more vitality and vivacity.

THE LATE DR. BABINGTON, OF DERRY.

Soon after the lamented death of the late Thomas Henderson Babington, M.D., the Medical Practitioners of the city and neighbourhood of Derry resolved to testify in some tangible form the affectionate regard and respect in which Dr. Babington was held by members of his own Profession; and this resolution they have now, after some unavoidable delay, carried out in a manner highly creditable to all parties concerned. A handsome tablet has just been placed in Derry Cathedral to his memory. It is placed in the north aisle, is in the Gothic style, and is formed of richly carved Caen stone, with Sicilian marble panel and serpentine marble columns. It bears the following inscription in early English characters, surmounted by the arms of the Babington family:—

"In memory of Thomas Henderson Babington, M.D, F.R.C.S.I., M.R.I.A., Surgeon of the County Londonderry Infirmary, Mayor of Derry, who died August 2, 1869, aged 56 years. His Medical brethren in this city and neighbourhood have erected this tablet in testimony of their affectionate regard for him as a friend, and as a record of their appreciation of his distinguished Professional attainments and eminent public services."

TAXATION OF HOSPITALS.

This important question has been brought to something like an issue—at all events, as far as those Hospitals which are incorporated are concerned. The magistrates have decided against the rating of the Queen's Hospital, Birmingham. It appears from a statement made at a meeting of the Committee of the Hospital, held last week, that if a distress were made for rates a few goods might be seized in the Secretary's office, and the only thing which remained would be to take the beds from under the patients, which was a contingency the law did not contemplate, and would not be put in force. It is believed that the authorities of the General Hospital are about taking steps to place that institution in a like position to that of the Queen's Hospital.

MEDICINE IN THE PUNJAUB.

Medicine has made rapid strides of late in the region of the "Five Rivers." We are pleased to observe, from the yearly Report of the Punjaub University, or University College, just published, that the institution is in a most flourishing condition. The Report states that the College is engaged in issuing scientific works in Hindustani, including vernacular treatises on Medicine, and a Medical journal, which has an extensive circulation. Twenty hakeems, or native Physicians, attend its classes. The Report, altogether, is a satisfactory document, and gives information on the progress of the College as remarkable as it was probably unexpected.

FROM ABROAD.—SYMMETRICAL ERYSIPELAS—GLYCERINED VACCINE LYMPH.

The following is an abstract of some clinical observations recently delivered at the Hôtel-Dieu, by M. Noel Guéneau de Mussy, on symmetrical cutaneous affections, in relation to a case of symmetrical erysipelas:—

"The symmetry which prevails as a law in normal organic evolution (he observed) is not infrequently met with in the pathological condition, as manifested by the repetition of the morbid process in homologous parts of the two sides of the body. Thus, caries of a tooth is often followed by caries of the corresponding tooth, affections of the eye are often double, and in gout and rheumatism, when one joint is affected, we not infrequently find the congenerous articulation suffers likewise, or is soon invaded in its turn. In many cutaneous affections the same symmetry is observed. It seems more easy of explanation in organs to which are distributed the cerebro-spinal nerves, having their symmetrical distribution on each side of the body, and being under the dependence of the strongly centralised innervation having its source in the encephalon. It is, perhaps, here more apparent, but it is also exhibited within the domain of the great sympathetic. Here, too, is found the pathological consensus—sympathies, in the proper sense of the word—between the two halves of simple organs, or between double organs, such as the kidneys or the ovaries. Graves has pointed out one of the most striking examples of pathological symmetry in median erysipelas; and he has lain down the rule, that when erysipelas commences at the median line, it becomes developed symmetrically on the two sides. A case which has come under my notice at the Hôtel-Dieu furnishes so striking and curious a confirmation of the law enounced by Graves, that I feel I ought to relate it.

"In June, 1871, a man entered my service affected with erysipelas of the face, this having commenced on the bridge of the nose and extended symmetrically on both sides. On the third day it occupied the forehead; but external to and below the frontal protuberances there existed two triangular spaces, having sides of two centimètres and a half, within which the skin, pale and depressed, remained perfectly healthy, its normal colour contrasting with the carmine-red of the surrounding parts. The borders which limited the portion of skin unattacked by the erysipelas formed prominent elevations, indicating (as Chomel has observed) that the morbid process was not arrested, and that this portion of the integuments would also be afterwards invaded. On the left side, the external boundary of this triangle exactly corresponded to a linear cicatrix remaining after an old wound of the forehead which had divided the skin throughout its thickness. The right half of the forehead had undergone no lesion, and yet the portion of the integuments unaffected by the erysipelas presented exactly the same form, seat, and dimensions as that which on the left side was contiguous to the cicatrix. The two triangles were of a perfect geometrical regularity, their positions and directions being absolutely alike. On the left side it might be supposed that the interruption of the vessels by the cicatrix may have retarded the erysipelatous fluxion; but on the right side this exemption could only be explained by the law of symmetry. The anomaly, however, was only temporary; for at the end of twenty-four hours the erysipelas had passed the obstacle, and the whole forehead was of an uniform redness, the white line of the cicatrix on the left side alone indicating the place which had been occupied by the triangle the day before."

We have repeatedly called attention to the remarkable success which has attended Geh.-Med. Rath Müller's employment of glycerine as a vehicle for the prolonged preservation of vaccine lymph, and for the almost indefinite extension of its employment during the period of epidemic visitation. During the late epidemic much of the inconvenience arising from the short supply of reliable lymph, so often complained of, would have been avoided had these results received in this country the attention they deserved.

In a recent communication upon the subject (*Berlin. K. Woch.*, September 25), Dr. Müller points out that the purity of the glycerine employed is of great importance; and that those Practitioners who have complained that the preservative power is only of short duration, have probably employed an impure article. In his hands, lymph, after being kept two years, has produced normal pocks; and in this way he has been able to store up, in the Berlin Vaccine Establishment, of which he is Director, supplies of reliable lymph sufficient for vaccinating thousands of subjects. The demand made for the German soldiers and the French prisoners during the late war could never have been supplied by the means ordinarily in use. Besides this valuable preservative power, Dr. Müller considers that glycerine facilitates the operation of vaccination, dilution of the lymph by its aid producing a far more efficacious, and much more intimate and easily employed, mixture than when water

is employed for this purpose. Nay, according to his own experience and that of many official vaccinators, glycerine-lymph acts more certainly and more completely than when unmixed fresh lymph is employed. This he supposes may arise from the coagulability of the blood being diminished by contact with the glycerine, and the lymph thus rendered more easily absorbable.

As already stated, the purity of the glycerine is of the greatest consequence when employed for this purpose, and Dr. Müller's object in the present communication is to point out the means recommended by Dr. Burgemeister, in his recently published monograph on Glycerine, for distinguishing between the mild article suitable for medicinal uses and one of a more irritating kind, not infrequently met with in the shops. Dr. Burgemeister states that if we mix in a test-glass equal volumes of rectified sulphuric acid of a specific gravity of 1·83 and pure glycerine, an elevation of temperature takes place, the mixture in some rare instances becoming of a very pale brown. It is quite clear, and at the very most a few air-bubbles are observed as a consequence of stirring it up. Glycerine which so comports itself is fit for medicinal use. On the other hand, objectionable glycerine, immediately on its being mixed with the acid, gives rise to a development of gas, resembling carbonic acid gas in a clear fluid; and after the gas has been removed and the mixture has been left at rest, a renewed development is produced by stirring the fluid, and this several times in succession —some kinds of glycerine giving rise to the production of more gas than others. From 100 grammes of glycerine, Hager extracted about 6 cubic centimètres of gas, which, on examination, proved to consist of carbonic acid gas and carbonic oxide. Oxalic acid and some formic acid were also found. For medicinal use only glycerine which has undergone purification by distillation should be employed.

From these investigations, as well as from others conducted at his request by the well-known chemist, Schädler, Dr. Müller draws the following conclusions:—1. Glycerine should be colourless, of a pure sweet taste, completely fluid, and miscible in any proportion with water or spirit of wine. 2. Turbidity, or a gelatinous separation, induced by the addition of strong spirit of wine, indicates the presence of gum. 3. Concentrated sulphuric acid should not induce a brown colour or the development of gas; and a further addition of spirit of wine should be followed by no turbidity or deposit indicative of the presence of chalk or lead. 4. No brown discoloration should ensue on heating it with a solution of potass, nor should any smell of ammonia be perceptible.

In mixing glycerine with lymph, an equal portion of distilled water has to be added; but when the lymph has to be preserved for a long period, it may be mixed with the undiluted glycerine, as this will probably preserve it still longer from decomposition, and the water may be then added when the lymph is employed. Dr. Müller, however, in his trials, has not perceived any difference in the lymph treated in these two different ways.

THE APPOINTMENT OF MEDICAL OFFICER OF HEALTH FOR LAMBETH.

(*From a Correspondent.*)

The opinions of the vestrymen are about equally divided as to the necessity for the future Medical Officer of Health holding the above appointment to devote the whole of his time to the duties of the office. The parish of Lambeth has a population of over 208,000, covers an area of 4615 statute acres, and is about six miles in length. Although it has not been the practice hitherto in the metropolis to restrict the Medical Officer of Health from private practice, doubtless the present vacancy in Lambeth presents an opportunity for the introduction of a wise principle, and one which, to our minds, would prove alike satisfactory and economical to the ratepayers. In such an extensive parish an active practical man would find sufficient work to occupy his time in devising every means for preventing disease; and the policy of paying the Health Officer liberally, so as to enable him to devote his time exclusively to the work, would prove but a small expense to save a greater one. Nor if, as suggested by the Social Science Association, the Poor-law Medical Officers are to be utilised as Health Officers, do we see less necessity for the Medical Officer of Health-in-Chief giving his whole time to the work, for such an arrangement would vastly increase his duties. It would be wise for the Vestry to consult their late Medical Officer as to the necessity for such an arrangement. We should be glad to hear his reply.

THE LEGAL LIABILITY OF PERSONS UNDER AGE FOR NECESSARY MEDICAL ATTENDANCE.

Medical Practitioners, who so readily bestow their services in the cause of humanity, frequently without any other reward than that of an approving conscience, deserve, at least, the full meed of protection which the law can afford, and in this respect they are not forgotten. We allude to the case of patients who in the eye of the law are infants, though perhaps infants of a full growth. In the matter of children residing with their parents or at school, there is no difficulty in recovering charges for Medical attendance upon such, because the contract, as a rule, is made with the parents or tutor; and, indeed, the infant, if living with and properly maintained by, the parent, cannot bind himself to a stranger for even what otherwise might be allowed as necessaries (2 Black. Rep., 1325). But there is a large class of young persons under age living apart from any parental protection—such as officers in the army and navy, young men at the universities, and young persons of both sexes obtaining their own living, and whose exact age it might be difficult to guess. In all such cases the contracts are made with them individually, and can be enforced if for what in the eye of the law are necessaries. Charges for medicine and attendance are very properly in law deemed necessaries, as, indeed, they are in fact, for which an infant is liable (*see* Co. Litt., 172a; Pal., 528; and Cam. Dig., 172a.) Indeed, this principle is well-nigh as old as the hills. Neither does it matter of what nature may have been the complaint under which the patient was labouring. A complaint contracted through immoral courses or vicious propensities requires necessary treatment for its cure equally with one of a purely natural or constitutional character. A tradesman, it is true, cannot recover for goods supplied to a prostitute to enable her to pursue an immoral career, although he may not have looked expressly to the proceeds of her prostitution for repayment (*see* Pearce *v.* Brooks, Law Rep., 1 Excheq., 213; Taylor *v.* Chester, Law Rep., 4 Q. B., 309); but a Medical man can recover for Medical attendance upon her for a complaint resulting from immorality. The law cannot disregard the health of any, but it can, and does, endeavour to check immoral courses, and will lend no assistance to any-one aiding and abetting. Such is the broad distinction, and a Medical man may rely upon every assistance in recovering all fair and reasonable charges in both such cases. An infant husband is also liable for necessaries supplied to his wife (*see* Turner *v.* Trisby, 1 Str., 168) or for infant children (Bazeley *v.* Forder, Law Rep., 3 Q. B., 559; and Bacon's Max., p. 86, edit. 1741). In a judgment delivered in Chapple *v.* Cooper, 13 M. & W., 252, 258 (A.D. 1844), by Baron Alderson, it is stated that "the medicines" which would be deemed necessaries for an infant would "depend on the illness with which he is afflicted, and the extent of his probable means when of age." And even "contracts for charitable assistance to others, though highly to be praised, cannot be allowed to be binding, because they do not relate to his own personal advantage." Medical attendance upon another at the request of the infant —as, for instance, upon an infant officer's servant at his master's request—would not be allowed, because, as Baron Alderson observed—"In all these cases there must be a personal advantage from the contract derived to the infant himself." It might also become a question whether supernumerary Medical attendances at the request of an infant patient, or expensive medicines, beneficial, though not absolutely essential, or expensive appliances which, though conducing greatly to

the patient's comfort, might have found a more economical and equally efficacious substitute, would be considered "necessaries" to an infant of but limited means. But an admission of existing liability, or a promise in writing signed by the debtor upon attaining majority, and before action brought, would in any case amount to a ratification (*see* Thrupp *v.* Fidder, 2 Esp., 628; Reeve *v.* Hopwood, Law Rep., 4 Q. B., 1). The admission must, however, be voluntary (Harmer *v.* Killing, 5 Esp., 102), and no particular form is necessary. The paper need have neither date nor address, nor need the amount be stated (Hartley *v.* Wharton, 1 Ad. and Ell., 934). Any letter or writing which in effect amounts to the adoption by a principal of the act of an agent will be sufficient in the case of the ratification of a contract made by an infant (Harris *v.* Wall, 1 Exch., 122; and Mawson *v.* Blane, 10 Exch., 206).

THE HAMPSTEAD HOSPITAL INQUIRY.

Seventeenth Day.

On Thursday, October 12, this inquiry was continued before Mr. Henley and Dr. Buchanan, the Commissioners appointed by the Local Government Board. The case for the defence—*i.e.*, the Management of the Hospital—which had been opened on the previous day by Mr. Montagu Williams, was continued.

The Management Board was represented by Mr. Montagu Williams and Mr. John Humphreys; but there was no legal attendance on the other side.

The Chief Commissioner, referring to the application which Mr. Williams made on behalf of the managers on the previous evening, that the Local Government Board would devise means for continuing the legal assistance to the other side, stated that as yet no answer had been received from the central authority. The Commissioners had considered the inconvenience arising from the course adopted by the complaining persons in withdrawing now, and, in order to secure the attendance of a representative, a summons had been issued to Mr. Kynaston, so as to secure his attendance during the remaining days of the inquiry.

Mr. Williams then continued his speech, commenced on the previous evening, and he again expressed his deep regret that the evidence he was about to produce would not be exposed to the searching and able cross-examination of the counsel who had hitherto appeared on the opposite side. In the course of a very able speech, which occupied about two hours in delivery, Mr. Williams reviewed the voluminous evidence given. He said that beyond all doubt the very men who had brought these charges had proved one of two things—either that they wantonly and negligently stood by and had seen their fellow-creatures greatly suffering without doing their duty by them, or they were actuated by pique in sending these charges to the *Times*. In regard to the first and second charges—those of restraining, the speaker pointed out that not one case of improper tying down had been shown; and, indeed, these men had sanctioned the practice, and had shown the nurses how to carry it out. He commented upon the character of the evidence, as shown by Hunter, the man Palmer, and the woman Haynes, and he concluded by declaring that the public, when his side was heard, would, so far from holding Dr. Grieve or the managers to blame, consider that they merited the gratitude and thanks of the community at large for their beneficent and devoted labours.

Mr. William Henry Wyatt, of 88, Regent's-park-road, was then called and sworn. Examined by Mr. Williams he said: I am a Middlesex magistrate, and, by the nomination of the Local Government Board, a Manager of the Metropolitan Asylums. By the Asylums Board I was elected Chairman of the Committee elected to manage the Hampstead Hospital. In the Asylums and at Hampstead in June we had 2200 beds for small-pox. These were wholly for pauper patients, for our powers went only to provide for paupers received through the relieving officers, and, strictly speaking, no one ought to have been admitted except through relieving officers; but some persons came to the gate, and in the emergency we took them in, regarding this as a public good. Other persons than the pauper class were admitted on relieving officers' orders. The cost for maintenance is thrown upon the parishes; the cost of establishment is a charge upon the metropolis as a whole. In no case has any payment been made to the Hospital; but all charges made for maintenance have been made by the parishes and received by them. In 1869 the Hampstead Hospital was put up in six weeks—so much of it as at first existed; three wards and an administrative block were opened in January, 1870, for the relapsing fever epidemic which arose in London, and in June, 1870, the Hospital was closed and its staff dispersed. In November, 1870, on a letter from the Poor-law Board, we put the Hospital into order for the expected small-pox epidemic, to which our attention was first brought by Dr. Bridges, the Medical Inspector of the Poor-law Board. The Hospital was opened on December 1 for 120 patients. The staff was approved by the Poor-law Board, and augmented as time went on and exigencies arose by the need of fresh wards being opened. The staff only entered the Hospital on November 28, Dr. Grieve, Mr. Drake (the steward), and the Sisters from East Grinstead being the first who on that day took possession of the Hospital, Sister Frances to be matron, and the other Sisters as superintending nurses. The 120 beds thus opened on December 1 were filled in three or four days, and from that time until the middle of May the demands for admission were most pressing from the parishes, both messengers and telegrams coming hour by hour. The first thing we did was to take Wards 4 and 5, which the year before had been fitted up on the grounds of the London Fever Hospital in the Liverpool-road, at the expense of the Asylums Board, and transfer them to Hampstead, adding them to the other wards there. These were opened on January 1 for seventy beds. Between December 1 and March 1 we had increased the accommodation by 300 beds. Later still we erected huts in the grounds for convalescents, and on May 24 we had 509 patients under treatment. I must add that in all this building it was very difficult to get workmen to come in, there being a great dread of the disease; and no sooner were the workmen out at night from finishing a ward, than beds were put in and filled with patients, so great was the pressure. Each ward had two nurses and a convalescent help for day, and at night one nurse with a convalescent help, and there was a night superintendent. The night superintendent was a superior paid nurse, and should never have been out of a ward for more than two hours at a time—such were her instructions. She came about Easter, and left on August 26. As each ward was opened this proportion of nurses was supplied. We had the greatest possible difficulty in getting suitable nurses, even though we were offering the most liberal wages. That difficulty first induced us to place male convalescent wards under male wardsmen, and the wards so placed were 4 and 5, until the huts were opened, when these wards were made for acute cases. The kitchen and laundry, originally built for 180 patients, were found, as the Hospital increased, to be totally inadequate to the demands, and in February new kitchens, with all the most convenient scientific appliances, were completed for 600 patients. The new laundry was delayed owing to the want of workmen and the delay in the machinery. There was the greatest possible difficulty in getting the linen washed in the old laundry; and as we could not send off linen to be washed outside, our difficulties were greatly increased by the want of laundrywomen. The Committee were:—Dr. Brewer, M.P., Mr. Suter, Surgeon-Major Bostock, C.B., Mr. P. Duff, Mr. R. Furniss, Mr. W. Harvey, J.P., Dr. Jervis, J.P., Mr. J. Marshall, J.P., Mr. A. H. Ross (Chairman of the Middlesex Hospital), Mr. J. B. Sedgwick, Mr. J. C. Swail, Mr. Tavener, and Mr. J. A. Shaw Stewart, J.P. (Treasurer of St. George's Hospital). On the pressure of the small-pox increasing beyond our space, we met and discussed whether we should refuse admissions beyond our space, or whether we should still take patients in, and we were continually obliged to give the parishes notice that they were not to send more, at particular times, until some had left, but they did send, and I have told Dr. Grieve that he should not take patients in thus sent when the Hospital was full, but he rejoined that a second journey would, perhaps, be fatal. It was no benefit to Dr. Grieve to take fresh patients in, for each admission gave him additional trouble, and his only reason for so acting was on the score of humanity. I have seen four or five ambulances, with three or four patients in each, in the Hospital grounds at one time, showing the pressure we were under. We have received at Hampstead more than 5700 cases since December 1, without speaking of Islington. The Committee often met, usually at the Hospital, and went frequently through the wards. Until I went into the country, in August, I used to go into the Hospital three times a week, and stayed there about two hours each time. I used to speak to the patients, and I have spoken to at least 100, and I always went over some of the acute wards. No one ever made a complaint to me of any kind—the only thing approaching one was that a convalescent man in the grounds said the wheeling of a barrow made his back ache. I was often in the "huts," and at least half a dozen times I was there when the patients were at dinner, and no complaints were made as to the food. The

meat contractors at first were Game and Sons, of Cannon-street, and afterwards Baker, of the Meat-market. (The form of meat tender was here put in.) I frequently went into the kitchen where the meat was cooking, and I never saw anything to complain of. We had two male cooks, with assistants, and all the newest appliances. In going over the Hospital I frequently saw the Assistant Medical Officers, and I believe I spoke to them all; but I certainly have spoken, and frequently, to Mr. Greaves and Mr. Kynaston. They never made the slightest complaint to me of anything, and I beg to say most emphatically that any complaint from the most subordinate officer, if in respectful language, and coming through the proper channel, or in any other way, would have received most earnest attention from us. The Hospital was always clean and sweet when I saw it, and proved to be wonderfully well ventilated. I am sure that everything which could be done under the pressure was done; but I should have liked to have had a larger laundry to commence with; that was our only weak point. Reports were made every fortnight to the Board. When I went up to Hampstead I used to see Dr. Grieve, and we talked unreservedly of the Hospital, and I am sure, from all I saw and all I know, that the public are under a deep debt of gratitude to him. I was Chairman of the Committee on July 24, and I can tell you what occurred then in regard to the dismissals. It came to my knowledge that these young men went out of the Hospital without notice, and I told Dr. Grieve that if they did it again he was to suspend them. He gave them notice of this. This was six days before the 24th. At the meeting of the 24th, from what I observed, I recommended the Committee to dispense with the services of these two gentlemen—Mr. Greaves and Mr. Kynaston. There was a discussion as to the form this should take, and the Committee agreed to let the matter go as if the two were to leave because of the decrease of the disease. There was no difference of opinion among the Committee as to dispensing with the services of these young men, but it was decided that, as they were young, and entering on their Professional career, a simple notice should be given. They (Mr. Greaves and Mr. Kynaston) were called into the Board-room and notice given them to leave. They referred to a letter they had sent asking to be heard on charges which they understood Dr. Grieve had made against them, but they were told the Medical Superintendent had forborne to make charges against them, and, therefore, no charges could be entered into. The Medical members of the Committee conversed with them, and told the two young men that they had acted wrongly in leaving the Hospital, as they had done. They made no complaints of these charges even then; not one word. We never told them they might resign, but we dismissed them; and when Mr. Aikman sent in his resignation afterwards it was accepted, and notice given to him of this acceptance the next morning. I never gave authority to ask Mr. Aikman to withdraw his resignation. I produce the prices paid for the goods consumed or used in the Hospital, and from my experience I can say the prices are fair and the contracts fair. We did not go upon the principle of taking the lowest tender. The Committee have held forty-four meetings in the year up to this time, twenty-five of which were held in the Hospital itself. The conduct and devotion of the Sisters were beyond all the praise I could give. I don't like singling out any, but I must say that, being much in the children's wards, I have seen Sister Agnes taking the deepest interest in her charges. Throughout, everything which could be done was done to meet the emergency of the case; and the only thing I would add, after all my experience, if I had to begin all over again, would be to improve the laundry.

The Chief Commissioner: I think I am right in saying that after November 19 last full powers were given to the managers by the Poor-law Board in dealing with the epidemic?

Witness: The Committee said that if they had to apply to the Poor-law Board for leave to appoint every officer they could not do the work so as to meet the emergency, and the Poor-law Board gave us power to go on without an order until June 16, but I think we had a caution that we were not to be extravagant. Dr. Grieve was not responsible for the whole of the servants, for the female staff was put under the Sisterhood, but Dr. Grieve was responsible for the male staff except for the steward's department. Subsequently we provided Dr. Grieve with a clerk for book-keeping purposes; but he had nothing to do with the stores, beyond reporting to the Committee anything he might see, as a Medical man, in those stores affecting the patients. Dr. Grieve never made any application to the Committee for help which was refused, and the same remark applies to the matron. He never, that I remember, said that the staff was overworked, but we knew that the staff were hard-worked, and that he worked exceedingly hard. If any such application had been made to the Committee, it would certainly appear on the minutes. Sister Frances applied to the steward for all linen, and the steward applied to us. I do not think there was any want of linen; whatever difficulty in respect to linen arose, was caused by the trouble in getting the dirty linen washed. We never refused any application from the steward for fresh linen. The dietaries in the Hospital were made by Dr. Grieve and shown to Dr. Bridges, of the Poor-law Board. The low dietary was not fixed at all under any considerations of economy, and Dr. Grieve's recommendations that extra supplies should be given were at once approved. The meat supplied was quite equal to any meat supplied to the sick in other public institutions, and the best proof that the meat was fit to be eaten is that it was eaten, and, as some have said, more was asked for. The cooks said the meat was good; but once or twice it turned during the very hot weather, and to meet such emergencies we had in store supplies of Australian preserved meat. The milk was contracted for at 1s. a gallon of four quarts. The Committee examined the porter's book to see what the conduct of the Assistant Medical Officers was in respect to out- and in-coming, and have informed their own minds upon these points. Many of the men in Wards 4 and 5 who were quite able to go out, were kept in solely from consideration for the safety of the outside public; they were kept in a sort of quarantine. I never had any complaints from patients about the seventh charge in the *Times*, and I can say, as I have been present at all the committee meetings except two, that no complaints of this were made to them. No request by any officer for stores or anything, I clearly say, was ever refused. We had great difficulty in getting servants.

By Dr. Buchanan: I should not have considered it an act of insubordination if a junior officer had come to the Committee with a complaint the subject of which he had pointed out to his superior. If the subjects of these complaints had existed I think I must have heard of them, for I have frequently seen persons who have been inmates, and they have never complained to me, even though when I saw them they were free from Hospital control. I knew persons were restrained by sheets, and I thought it the kindest thing which could be done for them in their then condition. I never on any occasion had the least complaint of the treatment or food in the Hospital. The books of the steward as to the quantities of things were checked by the clerks of this Board, and by the numbers of patients in the wards. With regard to the responsibility in the Hospital, we consider the Assistant Medical Officers were responsible for the Medical treatment in the wards, and they were to take Dr. Grieve's opinion upon a case. Dr. Grieve would have been held responsible to a great extent, if he had allowed any neglect to go on by the Assistant Medical Officers. In the case of the girl Stokes we should have thrown upon him the chief responsibility for any neglect occurring after the time when his attention was called to the case. As to whether he took proper means of control over the Assistant Medical Officers, I must say I think the Committee had too much responsibility on their hands in taking Islington Workhouse, where Dr. Grieve had to be every day for three hours, away from Hampstead, and, besides that, he had to answer an immense number of letters from patients' friends and from parishes. I did tell Dr. Grieve, after Islington Workhouse was in our hands, that I did not think the Assistant Medical Officers were supervised enough—not from any fault of his, but because we had too much on our hands—and that I would not have the same arrangement again if ever occasion required the Hospital to be used.

The Commissioner: Did you hear of any of these matters of complaint before you saw them in the *Times*?—To the best of my belief we never had any complaints at any time from anyone, except some regarding persons whose clothes were destroyed.

Eighteenth Day.

On Friday, October 13, the Chief Commissioner, Mr. Henley, stated that the Local Government Board were about to make arrangements by which the complaints—not the complainants—would be represented at the inquiry, and proposed an adjournment till Monday. The inquiry was accordingly adjourned.

Nineteenth Day.

On Monday, October 15, the inquiry was resumed, the managers being represented by Mr. Montagu Williams and Mr. John Humphreys, and the complaints by Mr. Collins and Mr. Bucknill.

Mr. Wyatt was recalled, and questioned by the Chief Com-

missioner. He said, with a view to preventing any future complaints in regard to restraint, the Committee have ordered that a record shall be kept of every case in which it may be necessary to restrain a patient mechanically.

Examined by Mr. Collins: Dr. Grieve had had experience of Hospital management. He superintended the Princess Alice's Hospital at Darmstadt during the late war; he was House-Surgeon at Glasgow; he had been a navy Surgeon; and had had private practice in Yorkshire. He was a man of good experience. This I gather from his testimonials, which were very satisfactory to the Committee. He had a salary of £30 a month at first, and he slept in the room afterwards allotted to the Assistant Medical Officers. I do not think £30 a large salary, and I think he should have had more for the hard work he did. We paid his predecessor at Hampstead, in the enteric fever epidemic, a salary of £35 a month, and this I considered fair. I know he was overworked, and the reason why we threw more responsibility upon him, and more work when he was thus over-worked, was because we could not help it. The pressure came, and no other Committee of the Board could be formed to undertake the duty of superintending Islington Workhouse; so when this was thrown upon us, we gave Dr. Grieve another Assistant Medical Officer, and £10 additional salary. Islington Workhouse took about three hours a day of Dr. Grieve's time. The Medical Assistant Officers were paid £12 a month, subject to notice of a fortnight, coming at the end of the month. I was aware of the want of harmony between the Assistant Medical Officers and Dr. Grieve in May or June, and in the latter month the Assistant Medical Officers, I knew, were directed to make their complaints in writing. The reports were laid upon the table, but the Committee never examined them, for they relied upon Dr. Grieve to bring any special matters before the Committee. I have no doubt he would have done so, but there was never anything of the slightest importance in those reports. I never spoke to these young men, although I considered the want of harmony prejudicial to the Hospital. I did not, for a reason which I will tell. I recommended Dr. Grieve to report them, and have the matter investigated. He told me that he had spoken to them, and they had promised things should be amended. I was weak enough to agree to this.

Mr. Collins: We are all wise after the event.

Witness: Yes; this inquiry has opened my eyes in many things as to the conduct of some persons. I asked Dr. Grieve how matters had altered, about a week after, and he said that Mr. Greaves had gone on better, but that Mr. Kynaston had not. There was no complaint, I should mention, of Mr. Aikman. I did not deal with Mr. Kynaston even then, for he had just recovered from his illness, and I thought it would be better to give him a little more time. I did not speak to him, for I have found by experience that it is not advisable to interfere between superior and inferior Medical officers. I often spoke to Mr. Kynaston as to his own general welfare during and after his illness. The Assistant Medical Officers did order eggs for the patients until June 18, when the Medical Superintendent's initials were required to the orders, because an unheard-of quantity had been ordered and consumed the week before; that was the reason that course was adopted. On July 24, when Mr. Kynaston and Mr. Greaves were dismissed, it is likely that I spoke to Dr. Grieve before the Committee met. I am not certain, but I think I was told that these two Assistant Medical Officers were about to ask for an investigation. We did not look into this, for we thought we were doing these young men the greatest kindness in not entering upon any such matters in their position; and if it had rested upon me, I should have dismissed them in a very different manner. They were dismissed because their conduct was insubordinate, and they showed no zeal in their duty. I did not consider them fit for their posts, and I am strengthened in my views by what I have heard here. I now consider they were bad Assistant Medical Officers. The reference in the Committee's report addressed to the "chief officers" in regard to the zeal of the staff did certainly not refer in any way to these Assistant Medical Officers, for I penned it myself, and I can distinctly say this. In regard to the Committee's report as to the reduction of staff, and giving that as a reason for dispensing with the services of those young men, I no not concur in it, and it is not a fact, and was placed on that issue to serve the young men themselves. In a second letter to the *Times* they stated that I had requested Dr. Grieve to express the highest satisfaction with their services, and I must here say that a greater falsehood was never penned. We did not go into any investigation when we dismissed Mr. Kynaston and Mr. Greaves. They had made no complaints, but they asked that charges of insubordination and disobedience which they understood were to be preferred against them should be investigated in their presence. We told them the charges were not made, and could not therefore be investigated. We dismissed the young men because of what we knew of them.

Dr. Brewer, M.P. for Colchester, Doctor of Medicine, and Chairman of the Asylums Board, was then called and sworn. Examined by Mr. J. Humphreys, he stated that he was at one time chairman of this Hospital Committee, that he generally agreed with the evidence given by Mr. Wyatt as to the arrangements of the Hospital, and that, having gone there very frequently, he could bear witness to it being clean and well ventilated. He deposed to speaking to patients and hearing no complaints of any kind from them regarding the food and treatment in the Hospital. Among those he saw there was Mrs. Fowle (the person who gave evidence on the other side), and he stated that she made no complaint to him. He described her baby as an unvaccinated one (16 months old), and she told him that it had not been vaccinated because the "father did not agree with vaccination." Witness told her the baby could not live, and he described it as having a most fearful attack of the disease. The woman and her infant were in a clean condition, and she had a very light attack of the disease. If the woman had made any complaints they would have been instantly seen to.

Cross-examined by Mr. Collins: I was occupied about twenty minutes with the woman, who was not in physical suffering, but was in mental distress. I examined the child, and found it a mass of disease, and quite unable to swallow. I saw by the bed-card that the Medical treatment was quite unobjectionable. I spoke to Dr. Grieve about the case, and he gave me such answers as to show me that he knew about the case. I did not speak to the Assistant Medical Officer in charge of the case, because I considered it the proper course to speak to Dr. Grieve, who was in the ward, and who was the superintendent. I should not have thought it a breach of etiquette to speak to the Assistant Medical Officer, but in the threatened loss of life I considered it a duty to speak to Dr. Grieve, as the head. I always presided at the meetings of the Board, and always have, with the exception of when I was taken with fever, caught in the Board's duty. I was at Hampstead twenty-seven times, but you will not find my attendances entered as twenty-seven, as I preferred to go at other times than at the committee meetings, and without the Medical officers, so as to hear if patients had any complaints to make. While at Hampstead I tasted the beef-tea made from beef and that made from Liebig's extract, and though I did not like the "extract" tea so well as the other, yet I believe it is better than the meat-made tea. I also saw the meat used, and it appeared good. Taking into consideration the great difficulties under which the Hampstead Hospital was made ready and carried on, I do consider that everything which could be done was done for the patients.

Dr. Jarvis, 32, Connaught-square, a magistrate of Middlesex, a visitor of Hanwell Lunatic Asylum, a manager of the Asylums Board by nomination of the Poor-law Board, Doctor of Medicine, Member of the Royal College of Physicians, M.R.C.S., etc., stated that he entered practice in 1824. He deposed: I heard Mr. Wyatt examined, and I agree with all he stated in reference to the time since April 24 last, when I first visited the Hampstead Hospital. When I visited on April 24 there were about 440 patients. I visited it twice in May, four times in June, and three times in July. On those occasions I went through some of the wards and conversed with several patients. No complaints were ever made to me about the Hospital, or in regard to the seven charges in the *Times*. I have been in the Hospital at the time when the convalescents have been at dinner, once when the dinner was being brought in. I looked at the meat, potatoes, and bread generally whenever I went, and the meat I considered good—as good as I saw anywhere else, and the quantity on the plates ample. The wards were ever clean when I saw them, capitally ventilated, and quite free from the sickening odour of small-pox. The appearance of the patients was quite in keeping with their proper treatment. In the case of the child's head described by Mr. Aikman, it would have been the duty of the Medical man to attend to it. It was essentially a Medical treatment which was required in attendance upon the "crusts" forming in small-pox. Restraint must be adopted for delirious small-pox cases, and mechanical restraint was the kindest treatment which could be adopted. Manual restraint would be most offensive to a patient, and by "tying down," as it is called, or the use of the strait-jacket, ophthalmia and severe pitting are prevented. Blindness is one of the evils of small-pox. From my own experience, seeing the exigencies of the

situation, I think everything was done which could have been done at Hampstead. I gave no notice of the times when I was going to visit Hampstead.

Examined by Mr. Collins: I have a strong opinion that delirious small-pox patients should be mechanically restrained. I don't say I would do so in lunatic asylums, for padded rooms are better there, but in small-pox the end is to secure the patients from doing themselves an injury. It would be quite right for a nurse to restrain a person at once, but she should report it afterwards to the Medical officer. It would be quite right to restrain a delirious person with a twisted sheet, and I should prefer that to a strait-jacket, and so would anyone of experience. I have used a twisted sheet myself, and I prefer a sheet to a nice silk handkerchief, which would cut into the flesh when tight. The mere "tying down" at four corners would be no restraint at all. Dr. Abernethy used to say that there was more sense in a jack-towel than in a nurse, and he advised a towel to tie the feet. There should be a record-book kept of restraints, but it was not done at Hampstead, for you must remember the hurry everything was done in up there. The pressure was exceedingly great, and I was astonished to see the organisation there was there with the heavy pressure—for they were receiving there three times as many patients every day as any large London Hospital receives on given days only, and with due time for selection and preparation for them. I consider two nurses were sufficient to thirty-four patients where there were convalescents to assist, but not without; and one night nurse would be sufficient with aid from an assistant. In the condition of the wards at that time, with convalescent patients, that number would be quite adequate. It would not certainly be advisable to bathe people at all stages of the disease. It would be better to treat people without bathing them, even though they were admitted covered with vermin; for of two evils I should choose the lesser, and it would be less evil to treat them with vermin than to bathe them. A lunatic and a delirous small-pox patient cannot be compared, for a lunatic would come to little harm by getting out of bed, while a small-pox patient would take most serious harm. I have seen the sheets stained, but that would occur immediately after a person was put into them. I spoke to the patients by themselves, but not one ever complained to me of anything, even though I spoke very encouragingly to them. I am quite sure that the food supplied at Hampstead, and which I saw, was quite equal to that supplied to other Hospitals.

Re-examined by Mr. Williams: I had certainly every reason to be satisfied with Dr. Grieve, whom from my observation I considered a very able and zealous officer.

Twentieth Day.

Surgeon-Major John Ashton Bostock, of 54, Chester-square, sworn and examined by Mr. M. Williams, stated:—I am Surgeon-Major of the Fusilier Guards, and Honorary Surgeon to her Majesty. I have had much Hospital experience. I went through the Indian campaign of 1843, and was in the campaign in the Crimea. Since I have been home I have had charge of the Regimental Hospital of the Fusiliers, containing 100 beds. I never went into the Hospital at Hampstead (and I went there frequently) without going into some of the wards. I took up Dr. Gordon, Deputy Inspector of Hospitals in the Army, as well as some of my brother Medical officers and colleagues. This shows I was not ashamed of the Hospital, and I consider it was one of the best I ever saw. I went into the wards and examined them to ascertain how far they were perfect in sweetness, cleanliness, and purity of atmosphere. They were as perfect as possible, and the lavatories, latrines, and baths were in general in good order. I never heard any word of complaint from anyone. I saw no dirty sheets on the beds, but I saw a heap of sheets as removed from the beds once in a bath-room. The patients were then coming in very rapidly, and I did not think this a surprising occurrence. Once I found a latrine stopped up, which I have found even in military Hospitals. I reported this to Dr. Grieve, who told me it was to be rectified at once, and he knew of it. I examined the bedding and sheets when I was there, and found, as might be expected, that the sheets were soiled by the patients, even though, as I have reason to believe, those sheets were put on half an hour before. The sheets are quickly stained in these Hospitals, and I have heard of as many as five sheets being used in a day to a patient in Stockwell Hospital. I consider it the duty of a Medical officer having charge of a ward to superintend the dressing of bedsores every morning, and, in case of danger to life, to dress such sores with his own hands. That is the custom in my regimental Hospital (I believe it is the same throughout the army), and was so at St. Bartholomew's. This is the duty of the ward Medical officer. I should not hesitate to employ restraint to delirious patients by means of a strait-jacket or a folded sheet. It is perfectly possible that there were vermin in the Hospital, but I never saw them. I have had experience in vermin, for there were "Crimean donkeys" as well as "Hampstead donkeys"; and I can say that, when patients of the class afflicted with these "things" are once admitted to an Hospital, it is very hard indeed to eradicate them. It might be dangerous to the patients to try to eradicate the vermin.

Dr. Buchanan read from one of the standard text-books of Medicine an opinion that in cases of delirium generally good nurses were required, but that mechanical restraint judiciously applied was of still greater importance, and asked the witness if he agreed with that opinion, and he replied in the affirmative.

In reply to questions put by Dr. Buchanan, the witness said: Holding this opinion with regard to delirious patients generally, there is, in my opinion, a greater reason for the application of mechanical restraints to small-pox patients, considering the state of the skin in that disease, and I think there will not be two opinions about this among persons who have had to do with delirious small-pox patients. A folded sheet is the best means of restraint to use. I would prefer to have a nurse controlling a patient by what is known as "moral means," if the patient is amenable to reason; but I should prefer to have a person who is not amenable to reason restrained by a sheet. A delirious patient could not be restrained by one nurse; it takes three or four men to restrain one man, and these would likewise have to wait upon the patient as well in the intervals of the attack. If there were three or four patients with delirium at one time, it would be impossible to attend to them without mechanical restraint, for the effect of manual restraint in such a case would be to excite all in the ward, and so would injure the patients generally. Manual restraint would not soothe a patient, but would be likely to act contrariwise. It would be nothing surprising for a Doctor to find a patient quiet and in a strait-jacket asking to have it off, and there would be nothing inconsistent in that with the fact that the man might have been in dangerous delirium a few hours before. In all cases a nurse, after restraining a delirious patient, should send for the Medical officer, night or day, for the nurse should not be saddled with a responsibility of this character. I never saw a patient tied down at Hampstead. I prefer a sheet being folded, but a twisted sheet would not be improper, for it could not do much harm. Stains from blood and other things in small-pox Hospitals on sheets cannot be removed even with a dozen washings if the stains are once allowed to dry. (The deposition of Mr. Aikman was here read as to finding the bedsore on the child Stokes.) I cannot well understand a Medical officer finding out a large bedsore of that character on the sacrum without knowing something of its previous history and character. I do not think the Medical officer in charge of a ward absolved from responsibility on account of such a bedsore because the nurse had not reported it; he should have looked out for it, and anticipated its formation. In the then condition of the child (when the sores were formed) mechanical means to prevent contraction of the limbs would have been worse than useless. The Medical Superintendent could not have seen the case as he passed the wards. I do not see how the Medical Superintendent could have seen the case, or have known of it, unless his attention had been specially drawn to it, which should have been done at the period before the bedsores had formed. Mr. Aikman should have reported the case to Dr. Grieve, even if he had only reason to have anticipated a bedsore. Mr. Aikman should have found out the bedsores earlier, and their tendency to form on the sacrum. It is the practice in Hospitals for the Medical attendant—the officer treating the patient—to inspect the skin over the sacrum, and to make applications to prevent bedsores, for this is a most important part of the Medical treatment, as the formation of a bedsore lessens the patient's chance of recovery. I certainly am opposed to the leaving of a pot of white precipitate ointment in the care of the nurses, to be used at their discretion. As a rule, I should leave nothing to the discretion of the nurses. I do not know what stavesacre is, but I should not so leave that or carbolic oil, although this oil would be less likely to do mischief. We do not keep such things in the Guards, for we have none of these things among our men in the Guards.

Dr. Buchanan: But you did have when you were in the Crimea?—Well, we all had them then. And what did you do then?—Well, we didn't write to the *Times* abusing the Commander-in-Chief. We could do nothing. We hadn't shirts to put on, and I never slept in a house for nine months.

By the Chief Commissioner: The diet at Hampstead is a most liberal diet, for I give only six ounces of uncooked meat to a soldier recovering from fever. I think eight ounces of uncooked meat, as on the ordinary diet at Hampstead, quite sufficient for men who were detained there until they were discharged. I saw the meat used in the wards at Hampstead frequently, and inspected it, and can say it was equal in every respect to what the Guards eat in London. The invalids' meat in the Guards is exactly the same as the other rations. I tasted the beef-tea made from the meat at the first opening of the Hospital, and I found it as good as any in London. (It was made from a pound and a half of meat to a pint.) That made from the extract was quite as good medically, though not so palatable as the other. No written reports from the Assistant Medical Officers were ever presented to the Committee. If I had been aware that they were ordered to send in such reports, I should have considered it my duty to look over them. As a rule, I should have one nurse to seven beds, as the proportion for the whole Hospital—that is a liberal proportion. In a large ward of sixty-four children I should have more nurses than in a ward with thirty-four convalescents; but I did not inquire as to the number in each ward. The result of my inquiries about the nursing showed me that with Sisters, nurses, and convalescent help there was fully the proportion of one nurse to every seven beds.

Mr. Williams said all the Committee were there, and Mr. Collins might, if he chose, call any of them and cross-examine them; or if the Commissioners wished to have them called, or any of them, they should be called.

The Commissioners said they did not wish to examine any of the gentlemen; and Mr. Collins said he left his friend Mr. Williams to conduct his case as he thought proper.

Mr. Williams then said he would mention the names of the gentlemen who were ready to be examined as the other members of the Committee:—Mr. William Harvey, the Chairman of the Islington Guardian Board; Mr. A. H. Ross, the Chairman of Middlesex Hospital; Mr. J. A. Shaw Stewart, Treasurer of St. George's Hospital and Chairman of Stockwell Asylums; Mr. Bell Sedgwick, Mr. Suter, Mr. Tavener, and Mr. Marshall. With giving in these names he thought he had carried his case far enough as regarded the Committee of the Hospital.

Elizabeth Meredith, who was one of the nurses at Hampstead, was then called and sworn. She had not found the diet insufficient. The patients never complained of insufficiency, and when she had served the ordinary diet, it was her habit to ask the patients if any wanted more (a second "helping"). Sufficient was sent up for the full quantity for each, and there was always some left for those who could eat more than others. The potatoes were generally good, and the beef-tea was always good. The meat was generally good, but she had once to notice in the hot weather a leg of mutton being a little tainted in the vein, and she told Dr. Grieve in Mr. Kynaston's presence of it. She deposed that Mr. Kynaston had been in the ward where she was when a delirious patient was restrained by being "tied down," and yet did not interfere in the case. She had not made any complaint that her ward was insufficiently nursed, and if she had required assistance she should have reported the fact, and obtained assistance. Witness had received testimonials from Mr. Greaves and Mr. Kynaston. In regard to the fourth charge in the *Times*—"On making the morning visit, we have been informed by the nurse in charge that the patients of her ward on low diet have been kept without food of any kind from 7 a.m. until 3 p.m.," the witness said she never made a complaint to Mr. Kynaston, as he had stated she had, to form this charge. The only foundation he had for saying this was his hearing her talking to the nurse about there being no milk, owing to its having turned sour.

The inquiry was then adjourned.

Twenty-first Day.

On Wednesday, October 18, the witnesses examined were the nurses, Elizabeth Meredith and Mary Manning, and Thos. Rose, the under-cook of the Hospital. Their evidence went to prove that the food, in quantity and quality, was good; that there was a sufficient supply of milk; that there was no unnecessary tying down of patients; and that the charges with respect to damp and dirty linen were untrue, that the linen was plentiful and clean. Nurse Meredith acknowledged that on one or two occasions she had not been able to get eggs for patients; and Nurse Manning allowed that two convalescent boys were occasionally put in one bed.

REVIEWS.

A System of Medicine. Edited by J. Russell Reynolds, M.D., F.R.S., etc.; Professor of the Principles and Practice of Medicine in University College, London; Physician to University College Hospital. Vol. III.—Local Diseases (continued). London: Macmillan. Pp. 995.

In his preface the editor says—"The delay which has occurred in the appearance of the present volume is due to the fact that the editor did not receive, many months after he expected to do so, the manuscript of those articles which were necessary to complete the section on 'Diseases of the Circulatory System,' several of the papers on which subjects had been for a long time in print." With his woes we duly sympathise, the more so as, doubtless, we are thus deprived for some time to come of the use of several valuable essays on a most interesting subject. The editor also tells us he has resolved to extend the work to four volumes instead of three. Such a course was necessary from the long delay already referred to, and, in point of fact, has long been foreseen if each separate subject was to receive the space justly due to its importance.

The present volume accordingly deals with Diseases of the Digestive System, and Diseases of the Respiratory System:—We have diseases of the mouth, diseases of the fauces, pharynx, and œsophagus, diseases of the intestines, diseases of the peritoneum, diseases of the liver, and diseases of the pancreas. Diseases of the respiratory system are subdivided into those affecting the larynx and those affecting the thoracic organs.

The authors and their works are thus arranged:—Dr. Squarey, formerly Resident Medical Officer at University College Hospital, deals with diseases of the mouth, pharynx, and œsophagus; Dr. Wardell, of Tunbridge Wells, treats of enteralgia; Dr. Bristowe, of St. Thomas's Hospital, takes enteritis, obstruction of the bowels, ulceration of the bowels, cancerous and other growths of the intestines, and diseases of the cæcum and its appendix; Dr. Warburton Begbie, of Edinburgh, takes colic, colitis, and dysentery; Mr. Curling, diseases of the rectum and anus; the next subject, intestinal worms, being treated by Dr. Ransom, of Nottingham. Diseases of the peritoneum follow—peritonitis being handled by Dr. Wardell; whilst Dr. Bristowe takes tubercle and carcinoma of the peritoneum, affections of the abdominal lymphatic glands, and ascites. Of the several diseases of the liver, the following allotment has been made:—Hepatalgia, to Dr. Anstie; congestion of the liver, to Dr. Maclean, of Netley; jaundice, to Dr. Goodeve, of Calcutta; biliary calculi, to the same; suppurative inflammation of the liver, and gangrenous inflammation of the same, to Dr. Maclean; whilst Dr. Goodeve treats of chronic atrophy or cirrhosis, and acute or yellow atrophy of the organ; Dr. Warburton Begbie taking up the other diseases—namely, fatty liver, cancer of the liver, hydatids, and waxy disease of the liver. Dr. Wardell discusses diseases of the pancreas, and Dr. Morell-Mackenzie diseases of the larynx. Diseases of the thoracic organs are divided into emphysema of the lungs, by Sir William Jenner; asthma, by the late Dr. Hyde Salter: phthisis pulmonalis, by Dr. Hughes Bennett; cancer of the lung, by Dr. Hermann Beigel; pneumonia, syphilitic affections of the lung, and brown induration of the lung, by Dr. Wilson Fox; cirrhosis of the lung, by Dr. Bastian; apneumatosis, by Dr. Graily Hewitt; bronchitis, by Dr. F. Roberts; the remaining articles—pleurodynia, pleurisy, hydrothorax, and pneumothorax—being from the pen of Dr. Anstie.

The preceding volumes of this System have, like most such works, been made up of articles of varying quality—good, bad, and indifferent—but neither of them contained such a proportion of poor and mediocre articles as does this. After a careful survey of the present volume, we are constrained to ask ourselves, Does this volume fairly represent the Medicine of Great Britain in 1871?—and we are fain to answer, No. Have the articles been written by the men best fitted to handle each separate subject?—and again we answer, No. We know not whether Dr. Russell Reynolds has endeavoured to secure the services of the men best qualified to treat of each particular malady: if he has done so, we must regret that he has failed, for he has not obtained them. But, in justice to the accomplished editor, we must excuse him in a certain way for the inequalities of the articles—it is so long ago since some were written. For the tardiness of his contributors he is not to blame; for his selection of them we can say nothing, except that we wish it had been more satisfactory. It would be invidious to say which we esteem the best, or which we esteem the worst treatise in this volume, though neither task would be difficult; but we

are at liberty to point out certain of the styles which vary so much in the volume before us. Thus, there is the cold catalogue *raisonné* of symptoms culled from the ordinary text-books, without even passing through the crucible of experience; there is the article dealing with its subject from the clinical, and the article dealing with its subject from the pathological standpoint; there is the writer who relies entirely on his own experience, and the writer who relies upon everybody's experience except his own; there is the intensely practical article, and the purely theoretical article, all combined in various proportions, and here offered to the public. Perhaps the best type of article is afforded by Dr. Wilson Fox's treatise on Pneumonia, although it must be confessed its length is out of proportion to the rest in the volume, occupying 186 out of a total of 968 available pages. Nevertheless, we say it is an admirable paper, because it contains the results of much reading and other kinds of hard work, carefully collated with the results obtained by personal experience. The article is not of the kind called erudite—an *omnium gatherum* of the opinions of every man who has written on the subject, from Hippocrates downwards—nor of the absolute, dogmatic kind, which, though infinitely superior to the former, and best suited to students, is not that most to be commended for Practitioners—the men who mainly use this book. On the other hand, there are articles in the present volume little better than stop-gaps, for whose existence it is difficult to account: certain of them are really little more than commentaries on recognised authorities on the same subjects. Now, the article we are about to cite is not the worst in the book, nor would we cite it but for the great importance of the subject and acknowledged position of the author. The article we allude to is "Phthisis Pulmonalis," by Dr. Hughes Bennett, of Edinburgh—in one respect, perhaps the most important treatise in the volume; it occupies but fifty-three pages, and what little there is is sadly behind the time. We have no hesitation in pronouncing that part of the article which deals with the histology, chemistry, and general pathology of tubercle as an anachronism—or worse, seeing it may by some be accepted as accurate. What says anyone acquainted with recent researches on tuberculosis to the following?—"With regard to its mode of production, tubercular matter is first separated from the bloodvessels as a fluid exudation, forming by its coagulation a molecular blastema. . . . . There (*i.e.* in the lung) all observation demonstrates that it originates in a molecular exudation, which, in consequence of diminished vital powers, seldom passes beyond the nuclear stage of growth." Is this 1871; and is Rip Van Winkle, in the shape of the Professor of Physiology and Clinical Medicine in the University of Edinburgh, once more among us?

Finally, we notice in this volume a considerable number of words, proper names and others, persistently wrongly spelled. This is not creditable. Let us hope the editor will be speedily enabled to remedy these blots in a new edition.

Organic Philosophy. Vol. III.—*Outlines of Biology: Body—Soul—Mind—Spirit.* By Hugh Doherty, M.D. London: Trübner and Co., Paternoster-row. 1871.

The preface of this work performs the remarkable part of "medium" for the advertisement of the writings of the same author published at long intervals, the present volume being No. 3 of the series. The first treats of Epicosmology "(the three kingdoms of nature on our globe, *epi-cosmos*); the second is a general outline of Ontology (Eternal Forces, Laws, and Principles); the third is an outline of Systematic Biology (Body, Soul, Mind, and Spirit); the fourth will be an outline of Systematic Sociology; the fifth a treatise on Dialegmatics, or Biological Methods in parallel with Mathematics as a Science of Method"—each of which (past, present, and future) may be procured for the ridiculously small sum of 10s.!

We have looked over Vol. III., the last-issued number of the series—we do not pretend to have read it; but we have seen enough of it to convince us that, notwithstanding its philosophic title, it contains a defence of the doctrine of spiritualism—or "spiritism," as it is called by the author, and explained by him as meaning "communications received from departed spirits"—of which he states he has himself witnessed the phenomena, or he should not vouch for them. We are told not only that the experience and knowledge of spirits are not equal in spirit-land any more than on earth, but that there are lying as well as truthful spirits; and that the action of evil among them is pretty much the same as on earth. Notwithstanding such defects, however, we are informed that many people have through spiritism been consoled by a belief in life after death, which they could not realise before. A spirit whose revelations are published in the *Medium* for April, 1871, announces that children who are full-grown and born alive are immortal; but that, in cases where the fœtus died before maturity, the child had no spiritual existence. It can easily be imagined how such a doctrine might be applied to criminal purposes by a spiritist who might happen to combine the professions of medium and abortionist. It is some satisfaction to learn that spirits do not agree on this point, nor do we care to enter into vain speculations as to the moment at which the human embryo becomes the seat of a living soul—suffice it for us to know that the whole period of embryonic life, from the moment of conception to that of complete delivery, is protected from interference not only by the dictates of morality and religion, but by the laws of this country. No revelations by either "spirit of health or goblin damned" capable of being applied to the diminution of the sacredness of the simple physical life of the embryo, on the grounds of its spiritual non-existence, can have any other than the most immoral tendency.

Dr. Doherty does not hesitate to enlist "spiritism" in support of the truth of the miracles narrated in the New Testament. He asks on what other grounds can we imagine the reality of Christ walking on the water, the body of a person being carried through the air to a distance, or the multiplication of the loaves and fishes, if modern spiritualism did not give us some reliable experience of analogous phenomena—such as the levitation of mediums, table-moving, and the transference of fruit, flowers, and sea-shells, even dripping with salt water, from great distances into rooms with closed doors and windows, where no such objects were known to be a minute or an hour before? For the explanation of such phenomena we have only to suppose, he tells us, that spirits can use some form of electricity or magnetism so rapidly and mutably as to render solid bodies liquid or fluid for an instant, without change of place, or mechanical disturbance, so as to allow other solid bodies to pass through them as through vapour. It is much easier, in Dr. Doherty's opinion, to conceive this possible velocity in physical modes of motion and mutation than to disbelieve the evidence of men and women in the perfect enjoyment of all their senses and their reason, who affirm the truth of facts which they have seen and felt, and know to be real. Further on in the work we find that, although we do not know on what evidence Socrates may have founded his belief, that disembodied spirits can live in "the burning lake of Tartarus, situated in the centre of the globe," spiritists in our day have abundant evidence that even mediums in the flesh, entranced and possessed by spirits, can handle burning coals without being injured in the least, and that paper can by spirit mesmerism be rendered incombustible. Hence, of course, those who choose, may derive an argument in support of the comforting doctrine of the real physical existence of the figuratively described lake burning with brimstone and fire.

The main purpose of the work, so far as we can make it out, is to establish an analogy or parallelism between the bodily organs and mental functions of man and the physical conditions of the globe on which he lives. The style is loose and inconsequent, and abounds with big words, with tortuous terminations which render them not only puzzling, but, in many cases, quite unintelligible to the ordinary mind. From the specimens we have given of the "Organic Philosophy" of Dr. Hugh Doherty, our readers can judge for themselves whether their libraries would be enriched by having on their shelves the collected works of the same author, at the price announced in the preface to his third volume.

NEW BOOKS, WITH SHORT CRITIQUES.

The Microgaphic Dictionary. By J. W. Griffith, M.D., etc., and Arthur Henfrey, F.R.S., etc. Third Edition by J. W. Griffith, M.D., assisted by the Rev. M. J. Berkeley, M.A., F.L.S., and T. Rupert Jones, F.G.S., Professor of Geology and Mineralogy, Royal Military College, Sandhurst, etc. Parts I. and II. London: Van Voorst.

*** It is with much pleasure we welcome a new edition of this well-known and well-tried naturalists' companion. Poor Henfrey is now no more, but Dr. Griffith has secured able assistance, and we hope great things of the book. As for the work itself, it is superfluous to praise it, as most men will say who have ever used it: good as it was, we trust it may now be better. The plan of publishing it in monthly parts, adopted in this edition by Mr. Van Voorst, will put it within the range of all. It is above all books useful to the private investigator.

Spiritualism and Animal Magnetism. By Professor G. G. Zerffi. Hardwicke.

*** An interesting little work on interesting subjects, and written in a charming style. We do not agree with all the conclusions and statements contained in it; but it is well worthy of perusal, and will attract much attention at a time like the present, when the subjects to which it relates are discussed with so much ardour and antagonism.

GENERAL CORRESPONDENCE.

THE *LANCET* AND MIDDLESEX HOSPITAL.

Letter from Dr. W. Cayley.

[To the Editor of the Medical Times and Gazette.]

Sir,—With reference to an article in the *Lancet* of October 14, headed "University College Hospital," I beg leave to state that students of University College are only admitted to the Medical and Surgical practice of the Middlesex Hospital on exactly the same terms, with regard both to fees and privileges, as other occasional students who may enter for Hospital practice, no preference whatever being given to students from University College over such other occasional students with respect to clinical appointments, for which they are only eligible in event of no general pupil of the Middlesex Hospital Medical College offering himself.

The notice in the prospectus of University College, of which mention is made, refers to matters of private arrangement between the authorities and students of University College itself, with which the staff of the Middlesex Hospital are in no way concerned, and of which they had not even been made cognisant.

With regard to the advantages which the writer of the article intimates this Hospital would derive from the supposed agreement, by being thereby enabled to fill up its clinical appointments, I may be permitted to state that for these appointments the wide field for practical study afforded by the Middlesex Hospital has never yet failed to secure an ample supply of eligible candidates.

I am, &c., W. Cayley, M.D., Dean of
October 16. the Middlesex Hospital Medical College.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

Friday, October 13, 1871.

Dr. W. W. Gull, F.R.S., President, in the Chair.

The President, on taking the chair, congratulated the Society on beginning its work again—for it was a work we were always beginning. He thought we could not be over-critical in such a Society; he might say that at its doors we ceased to be Practitioners, to become critics. The past history of Medicine was full of wrong theories—most experience was fallacious; yet everybody appealed to it. Their great difficulty was to avoid fallacies, and, therefore, they required great acumen to insure that their facts might never be disputed. They were all striving here to throw light on their daily work, and he would be glad to hear brought before the Society the value of a symptom clinically or its fallacies, or, again, the natural history of a disease, the use of a drug, or of any one mode of investigating a disease. The future of Medicine rested on accurate diagnosis, and they ought, therefore, to encourage any accurate inquiry into clinical Medicine. He concluded with welcome and encouragement to all.

Dr. Baümler read a paper on "Partial and General Idiopathic Pericarditis," in which he endeavoured to prove that the white or milky spot on the surface of the heart frequently met with at post-mortem examinations has a clinical history of very transient acute pericarditis. He adduced in support of this proposition two cases, in which an acute illness, coming on with dyspnœa, with pain behind the sternum, radiating upwards to the larynx, the left shoulder, and towards the left ear, and with slight febrile disturbance, was accompanied by a characteristic pericardial friction-sound, lasting, like the other symptoms, only for two or three days. In a third case, where the onset had been more gradual, the friction-sound was heard over a larger area; and there was also some distension of the pericardium by fluid; yet the whole attack was mild, and lasted only a fortnight. Such intermediate forms link the very slight cases to the more serious ones, which more generally come under observation. Cases of idiopathic pericarditis being of rare occurrence, Dr. Baümler appended the history of three other cases of this kind which had come under his observation. The three patients had been little girls from 8 to 10 years of age, and the pericarditis had come on in so insidious a manner that they had walked about with the pericardium full of effusion. One of them died; the two others recovered—one entirely, the other with valvular disease remaining. With regard to treatment, Dr. Baümler particularly recommended the application of ice to the cardiac region, especially for its influence in reducing the number of the heart's contractions, and in relieving pain.

Some discussion arose with regard to the length of this paper, and it was generally understood that in future the ten minutes rule should be adhered to as closely as possible.

The President said it had been denied by great Physicians that pericarditis ever, *per se*, causes pain: in these cases there was much. Was it certain they were cases of pericarditis?—for pleurisy would give some of the symptoms. If this disease—pericarditis—was idiopathic, what conditions set it up? The friction-sound was fallacious; in many instances he had seen it to be so, for it might be simulated by pleurisy outside the pericardium. Some of the patients alluded to were adults and some were children, yet the conditions of the pericardium in these were different.

Dr. Powell asked how the author reconciled the action of the ice-bag with mustard and blisters. In other forms of acute disease with high temperature—as tuberculosis—he had heard a pericardial râle come on and pass away again in a few hours. Perhaps it might arise from a kind of dryness in the pericardium.

Dr. C. T. Williams asked the exact effects of the ice-bag on the heart and temperature.

Dr. Baümler, in reply, said the ice-bag reduced the number of beats per minute, and also the general temperature. In one case he had kept on the ice-bag for four days, with great comfort to the patient. He thought ice relieved pain as well as the fever. Empirically both ice and blisters did relieve pain.

Mr. Nunn read a paper on "Lupus Erythematosus." This disease, known also as superficial lupus, was believed by Mr. Nunn to be essentially an inflammatory atrophy of the cutis, limiting itself to that structure, and thus distinguished from lupus exedens, which was capable apparently of destroying indiscriminately every structure. Two cases of lupus erythematosus were reported, in which the family history afforded no clue to the nature of the disease; and, in contrast, one case of lupus exedens, in which an hereditary syphilitic taint was with almost complete certainty to be traced. The first two cases had been treated for years before coming under Mr. Nunn's care with mercury, iodine, arsenic, etc. The first patient, a male, aged 34, had (October, 1870) suffered during thirty-two years, the second during twenty-one years, with lupus erythematosus of the cheek. The bromo-iodine waters of the Woodhall Spa, in doses of a wineglassful three times a day, were given, and a tablespoonful of lemon-juice in a tumblerful of milk every morning. In the first case, the gums being spongy, a solution of chloride of zinc (one grain to the ounce of water) was ordered to be applied to them. This case was to all appearances cured at the end of six months. The second patient was still continuing the treatment with advantage, having only commenced it in May last. The case of lupus exedens had been in the Middlesex Hospital, under the care of the late Mr. Moore, and was now an inmate of the Hospital for Incurables at Putney.

Dr. Althaus said he had no experience of the Woodhall Spa waters, but they resembled those of Kreuznach, which in such cases did good. Their beneficial effects raise the question—Do we not give too much iodine in some cases? In many mineral waters patients only took the equivalent of one grain per diem.

Dr. Gull said the disease was one of the opprobria of Medicine, and constantly resisted all treatment—Kreuznach and all. The name lupus was as good as any other.

Mr. G. Lawson related the particulars of a case of large Melanotic Tumour of the Eye, which had burst through the sclerotic and had extended into the orbit. He first excised the globe and then freely applied the chloride of zinc paste for the purpose of destroying all the tissues within the orbital cavity, and thus effectually to get rid of all the cancer-germs with which those structures are in such cases generally infiltrated. The operation was performed in July of this year, and the patient was now progressing favourably towards recovery. All the tissues within the orbit sloughed, and large portions

of the bony cavity had exfoliated. Mr. Lawson remarked, that when the diagnosis of melanotic tumour within the eye is made at a very early stage of the disease, the simple removal of the eye is frequently sufficient. He quoted the case of a patient in whom he had been able to recognise the tumour by the ophthalmoscope when it was scarcely of the size of a pea. He removed the eye, and now nearly three years have elapsed and there has been no recurrence of the disease in the orbit.

Mr. De Morgan said the application of caustics after the removal of an eye for early disease was a good plan. In many eyes excised the elements of cancer were found in the optic nerve, at such a point as to indicate their implication of the structures beyond the point of section. Were zinc applied the patient would probably live longer. He would warn gentlemen attempting the practice that severe epileptiform attacks may follow the operation in a few hours. In one case he remembered they recurred every twenty minutes. With each attack the pulse went down; again, it gradually recovered up to a certain point, when the patient went off again. Ultimately he did very well. In reply to Dr. Buzzard, he said there was no tendency to the recurrence of the epilepsy.

The President said there were two great points to be considered here—Was cancer a local malady? and could a patient attacked by cancer be saved? He wished cancer always began in the eye, for then an early and accurate diagnosis could be made. He saw the other day a man who, nine years ago, had his eye removed for cancer. He had been well since, but it was now recurring in the liver. He believed the disease was always local; he did not know where the constitution lay. Malignant diseases began in a particular place in a particular way. Generally we saw them when too far advanced.

Mr. G. Lawson said whilst such tumours were growing in the eye they were black. When they burst the sclerotic, they grew much more rapidly, and were white, becoming encephaloid.

Mr. T. Nunn said that, in about one case in thirteen, cancer would last ten or twenty years. This was a fair sample of fallacious experience.

Mr. H. Lee said his views were different. The other day he removed a breast, not with a view to cure the disease, but to prevent a disagreeable ulcer. He thought the same perverted nutrition which had caused the original disease would set it up elsewhere.

The President asked what evidence there was that the glands stopped the disease.

Mr. Lee thought the experiments with gunpowder showed that.

Mr. De Morgan was entirely at variance with Mr. Lee. He considered cancer to be a local disease, and that one gland communicated it to another. Gunpowder reaches one, and stays there. In no single instance did the part most prone to cancer take it on secondarily—as, for instance, one breast from another.

Mr. Lawson said the Middlesex Hospital statistics showed a family history of cancer to be rare.

Mr. Arnott had constantly seen a whole chain of glands affected, from the part primarily to the part secondarily attacked. Later figures hardly bore out Mr. De Morgan's statement; for cancer might affect both breasts, or breast and uterus.

OBITUARY.

FRASER THOMSON, M.D., L.R.C.S.E., and F.R.S.E.,

Was born in Perth. His father, Dr. W. A. Thomson, and his uncle, Dr. Andrew Thomson, of Edinburgh, were well-known clergymen of great ability. He studied Medicine at the University of Edinburgh, where he graduated in 1828, having the year previously become a Licentiate of the Royal College of Surgeons of Edinburgh. After further pursuing his studies in Paris and elsewhere on the Continent, he married and settled in his native city, and soon acquired one of the most extensive general practices. He also became one of the Surgeons of the Perth City and County Infirmary in 1838, and he held this responsible position till failing health necessitated a curtailment of his labours, and then he was made Honorary Consulting-Surgeon. His dexterity as an operative Surgeon was great, and he was invariably consulted in all difficult cases in the county. For many years before retiring from active practice (which he did at the end of 1865), he was the chief Practitioner in the county, and he maintained the same position in consulting practice subsequently. His cultivation, sagacity, genial yet dignified urbanity, and his commanding presence, peculiarly fitted him for such a position. Even in his student-days (and as member of the old and now extinct Plinian Society of Edinburgh) he was devoted to scientific and, especially, zoological pursuits, and he was an able microscopist; indeed, his fine collection of valuable microscopes, his cabinets of beautifully mounted preparations, and his great knowledge of the subject, used to surprise even Professor Quekett. His observations on the structure of many marine animals would have given him a name in the department if he had made them known, but he avoided this, having only recorded some of his remarkable Medical cases in the *Edinburgh Medical Journal*. He was distinguished by his concise and clear diction as a lecturer and speaker. In 1861 he became the first President of the Perthshire Medical Association, and afterwards Chairman of the Directors of James Murray's Royal Asylum for Lunatics, positions in which his great acquirements, sound judgment, and practical sagacity were invaluable. Much of his time was lately devoted to the museum of the Literary and Antiquarian Society of Perth. He was a Fellow of the Royal Society of Edinburgh, and a Justice of Peace of the county of Perth. He was a keen golfer, angler, and sportsman, even in his declining years. His loss makes a great blank not only in his wide circle of private friends, and in the public institutions of the city and county with which he was connected, but in the community in general.

HENRY S. ILLINGWORTH, F.R.C.S., Etc.,

Died on the 16th, 62 years of age. Mr. Illingworth practised for many years at the corner of Arlington-street, Piccadilly. He joined Mr. Moore in partnership upwards of thirty years since. The practice was a very old one, and for nearly a century had been associated with Royalty. Mr. Illingworth was Apothecary to the late Queen Dowager, the Duke of Cambridge, and the Duchesses of Gloucester and Kent; he was also Visiting Apothecary to St. George's Hospital. His contributions to Medicine appeared in the old *Medical Gazette*—the first "On a Case of Poisoning by Corrosive Sublimate"; the second "On Œdema of the Glottis." Mr. Illingworth was a quiet, unobtrusive gentleman, and well informed in his Profession.

MEDICAL NEWS.

Royal College of Physicians of London.—At an extraordinary meeting of the College on Monday last, Edward John Waring, M.D. St. And., 49, Clifton-gardens, Maida-vale, was admitted Fellow; and the following gentlemen, having conformed to the by-laws and regulations, and passed the required examinations, were granted Licences to practise Physic, including therein the practice of Medicine, Surgery, and Midwifery:—

Biddle, Cornelius, M.R.C.S., 26, Queen's-road, Dalston.
Davies, Henry, M.R.C.S., Pentrepoth, Morriston, Swansea.
Eager, Wilson, M.R.C.S., Bethlehem Hospital, S.E.
Edmonds, Frederic H., M.R.C.S., University College Hospital.
Hobley, Simon Halford, M.R.C.S., 20, Queen's-crescent, Haverstock-hill, N.W.
Newington, Frank E., M.R.C.S., 1, Evering-villas, Amherst-road, Hackney.
Scully, John, M.R.C.S., Middlesex Hospital.
Stamford, William, M.R.C.S., Tunbridge.
Thomas, John Howell, London Hospital.
Wall, William Barrow, University College Hospital.
West, John G. U., M.R.C.S., University College Hospital.
Wilby, John Burdett, M.R.C.S., Leicester.

The following candidates, having passed in Medicine and Midwifery, will receive the College Licence on their obtaining Qualifications in Surgery recognised by the College:—

Bland, George, St. Bartholomew's Hospital.
Harries, Thomas Davies, Guy's Hospital.

Apothecaries' Hall.—The following gentleman passed his Examination in the Science and Practice of Medicine, and received a Certificate to practise, on Thursday, October 12, 1871:—

Masterman, George Frederick, Croydon.

The following gentlemen also on the same day passed their first Professional examination:—

Bowkett, William David, London Hospital.
Grogono, Walter Atkins, London Hospital.

The Surgeoncy to the Metropolitan Dispensary, Fore-street, is vacant through the resignation of Mr. Sydney Chater. Ill-health, we regret to say, has obliged him to withdraw from the office.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

CARNEGIE, JOHN, M.A., M.D., C.M.—Surgeon to the Chesterfield and North Derbyshire Hospital and Dispensary.

DONOVAN, H. J., A.B., M.D.—Medical Officer for the Emlagh Dispensary District of the Caherciveen Union, co. Kerry.

DORAN, ALBAN H. G., M.R.C.S., L.S.A.—House-Surgeon to St. Bartholomew's Hospital, *vice* A. J. Hogg.

FLOWER, THOMAS, M.R.C.S.E., L.S.A.L.—Medical Officer and Public Vaccinator for the Warminster District Union Workhouse, and Corsley District of the Warminster Union, *vice* P. Grubb, resigned.

MACCALL, WM. N., M.D.—Assistant Medical Officer to the Clinical Hospital and Dispensary for Children, Manchester.

NORTON, ROBERT, M.R.C.S.E. (1836), L.S.A.L. (1836)—Medical Officer for District No. 2 in the Bristol Incorporation of the Poor.

THORPE, G. E. K., M.R.C.S.E.—House-Surgeon to the Public Hospital and Dispensary, Sheffield, *vice* Algernon Taylor, M.R.C.S.E., resigned.

MILITARY APPOINTMENTS.

10TH FOOT.—Staff Assistant-Surgeon James McNamara, M.D., to be Assistant-Surgeon, *vice* Theobald Andrew Purcell, appointed to the Staff.

MEDICAL DEPARTMENT.—Assistant-Surgeon Theobald Andrew Purcell, from the 10th Foot, to be Staff Assistant-Surgeon, *vice* James McNamara, M.D., appointed to the 10th Foot.

BIRTHS.

RANGER.—On October 17, at Westfield Villa, Peckham-rye, the wife of W. G. Ranger, M.R.C.S.E., of a daughter.

FARR.—On Wednesday, October 17, the wife of Dr. Archer Farr, 88, Waterloo-road, of a daughter.

PRICE.—On October 13, at Margate, the wife of William Price, M.D., of a son.

WARD.—On October 13, at Northbourne, Chobham, the wife of Dr. Ward, of a daughter.

MARRIAGES.

DALY—STONE.—On October 11, at the parish church, Longworth, Farringdon, Joseph Harding Daly, M.R.C.S.I., L.R.C.P.L., of Kingston-Bagpuize, to Caroline Mary, only surviving daughter of Mark Stone, Esq., Longworth, Berks.

GAY—THIMBLEBY.—On October 12, at the parish church, Spilsby, Lincolnshire, John Henry Gay, Surgeon, Spilsby, only son of William Gay, solicitor, Wisbeach, to Alice, elder daughter of Dr. Thimbleby, of Spilsby.

LANGLEY—LEE.—On October 10, at Dawlish, Albert Gordon Langley, Esq., of Lincoln's-inn and Blackheath, barrister-at-law, to Isabella, widow of the late Captain Seymour, R.M.L.I., second daughter of Dr. Robert Lee, of 4, Savile-row.

POWIS—STEWART.—On October 12, at St. Giles's, Camberwell, H. S. Powis, M.D., Castle-hill, Maidenhead, to Mary, second daughter of Ramsay Stewart, Esq., formerly of Edinburgh.

PRICHARD—BATEMAN.—On October 14, at the New Church College Chapel, Devonshire-street, Edward Ellison, son of Henry Prichard, Esq., of Stanley-gardens, Kensington-park, to Helen Maria, daughter of Henry Bateman, F.R.C.S.E., of Compton-terrace, Highbury.

THORP—BURFORD.—On October 14, at St. Mark's, Hamilton-terrace, T. E. Thorp, of Whitley, Berks, to Emma Champion, eldest daughter of H. B. Burford, M.R.C.S.E., of Hamilton-terrace, St. John's-wood.

WRIGHT—TOLLER.—On October 12, at Kettering, J. Brampton Wright, M.D., of Wellingborough, to Caroline Addison, second daughter of W. Toller, Esq., Rockingham-road, Kettering.

DEATHS.

FAITHORN, GEORGE, Surgeon, at Chesham, Bucks, of typhus fever, on October 12, aged 64.

FAWCUS, JAMES, M.D., Surgeon in the Bengal Army, Inspector-General of Gaols in Bengal, at his mother's house, Etal Villa, North Shields, of fever caught in Calcutta, on October 11.

ILLINGWORTH, HENRY STANHOPE, F.R.C.S. and L.S.A., of Arlington-street, Piccadilly, W., at 43, Curzon-street, Mayfair, on October 16, aged 62.

JONES, KATE, the dearly beloved child of Dr. David Jones, of Bolton House, Clapham-road, and 15, Welbeck-street, Cavendish-square, on October 12, suddenly, by a fall from the baluster of a staircase, aged 7 years and three days.

THOMSON, FRASER, M.D., L.R.C.S.E., etc., at Perth, very suddenly, on October 10, aged 68.

WATTS, ANN, relict of William Watts, Esq., of Bucklebury, near Newbury, Berks, and the dearly beloved mother of William Henry Watts, M.R.C.S.E., at the residence of friends, 21, Hampton-place, Brighton, of gangrena senilis, on October 12, aged 77.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

DEVON COUNTY LUNATIC ASYLUM.—Assistant Medical Officer. Applications and testimonials to Mr. T. E. Drake, Solicitor, on or before October 26.

DORCHESTER UNION.—Medical Officer for the Workhouse and Dorchester Districts. Candidates must be qualified in accordance with the General Orders of the Local Government Board. Applications and testimonials to Mr. H. Lock, Clerk, on or before October 26. Election the same day.

EVELINA HOSPITAL FOR SICK CHILDREN, SOUTHWARK-BRIDGE-ROAD.—Surgeon. Must be M.R.C.S.E., and be registered. Applications and testimonials to the Committee at the Hospital, on or before October 25.

GREAT NORTHERN HOSPITAL.—House-Surgeon. Candidates must be M.R.C.S. Applications and testimonials to the Secretary, Mr. G. Reid, 46, Great Coram-street, W.C., on or before October 30.

GREAT OUSEBURN UNION.—Medical Officer and Public Vaccinator for the Workhouse and the Ouseburn District. Candidates must possess the qualifications prescribed by the General Orders of the Local Government Board. Applications and testimonials to H. H. Capes, Esq., Solicitor, Knaresborough, Yorkshire, on or before October 28. Election on the 30th.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, BROMPTON, S.W.—Resident Clinical Assistant. Applications and testimonials to the Secretary on or before November 4. Further information may be obtained at the Hospital.

LONDON FEVER HOSPITAL.—Physician. The necessary qualifications are—F. or M.R.C.P.L. Applications and testimonials to the Secretary, at the Hospital, on or before November 7. Election on the 10th.

MALE LOCK HOSPITAL.—Resident House-Surgeon. Applications and testimonials to the Secretary, on or before October 27. Further information may be obtained upon application at the office, 91, Dean-street, Soho, on Monday, Wednesday, or Friday at 12 o'clock.

NORTH DEVON INFIRMARY.—House-Surgeon. Must be M.R.C.S.E., and be registered. Applications and testimonials to Mr. John Bridgman at the Infirmary, Barnstaple, on or before November 4. Election on the 14th.

NOTTINGHAM GENERAL HOSPITAL.—Assistant House-Surgeon. Applications and testimonials to the Secretary, on or before October 24.

NOTTINGHAM GENERAL HOSPITAL.—Resident Surgeon-Apothecary. The qualifications required are as follows:—F. or M.R.C.S. Eng., Edin., Dub., or of the Faculty of Glasgow, and L.S.A. Applications and testimonials to Mr. E. M. Kidd, Secretary, on or before October 24.

PRESTON AND COUNTY OF LANCASTER ROYAL INFIRMARY.—House-Surgeon. Must be legally qualified to practise. Applications and testimonials to Mr. R. F. Easterly, 54, Fishergate, Preston, on or before October 24. The duties will commence on November 9.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, CITY-ROAD.—Operating Surgeon. The qualifications required are—For M.R.C.S.E. not practising midwifery or pharmacy. Applications and testimonials to Mr. C. L. Kemp, on or before November 7. Election on the 21st.

ROYAL SURREY COUNTY HOSPITAL.—House-Surgeon. Must be duly qualified in Medicine and Surgery. Applications and testimonials to the Assistant-Secretary, Guildford, on or before November 6.

ST. GEORGE'S, HANOVER-SQUARE, DISPENSARY.—Physician-Accoucheur. Must be M. or F.R.C.P.L. Applications to the Honorary Secretary, 59, Mount-street, on or before October 30. Election the following day.

SHEFFIELD PUBLIC HOSPITAL AND DISPENSARY.—Assistant House-Surgeon. Medical and Surgical qualifications required. Further particulars of Dr. J. C. Hall, Honorary Secretary, to whom applications and testimonials may be sent on or before October 23.

SWAFFHAM UNION.—Medical Officer for the Saham Toney District. Gentlemen applying for this appointment must be qualified in accordance with the General Regulations of the Local Government Board. Applications and testimonials to Mr. R. Sewell, Clerk, on or before October 21. The duties will commence on the 28th.

WESTHAMPNETT UNION, SUSSEX.—Medical Officer for the Rumboldswhyke District. Candidates must have both Medical and Surgical qualifications and be registered. Applications and testimonials to Mr. R. G. Raper, Chichester, on or before October 21. Election on the 23rd.

WESTMINSTER HOSPITAL.—House-Surgeon. Must be qualified to practise under the Medical Registration Act, 1858. Further particulars of Mr. F. J. Wilson, Secretary, on or before October 25.

WEYMOUTH UNION.—Medical Officer and Public Vaccinator for the Melcombe Regis District. Candidates must possess the qualifications prescribed by the General Orders of the Local Government Board. Applications and testimonials to Mr. R. Hare, Clerk, on or before October 23. Election on the 24th.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1861.

RESIGNATIONS.

Ellesmere Union.—Mr. Wm. Davies has resigned the Overton and Penley District; area 5915; population 1780; salary £30 per annum.

Fulham Union.—Mr. Fredk. W. Spurgin has resigned the Fifth District; area 1650; salary £50 per annum.

Glendale Union.—Mr. Thomas Hunter has resigned the Lowick District; area 12,875; population 1946; salary £10 per annum.

Great Ouseburn Union.—Mr. J. P. Hunt has resigned the Great Ouseburn District; area 9458; population 1994; salary £20 per annum; and the Workhouse; salary £30 per annum.

Walsall Union.—Dr. Burton has resigned the Workhouse; salary £100 per annum.

APPOINTMENTS.

Gower Union.—Henry V. Ellis, B.M. and M.C. Univ. Aber., to the Western District and the Workhouse.

Hawarden Union.—Wm. Roberts, M.R.C.S. Eng., L.S.A., L.R.C.P. Edin., to the Second District.

St. George's Union.—George Fenton, M.R.C.S.E., L.S.A., to the D District.

Whitchurch (Hants) Union.—Sydney Hayward, M.D., M.R.C.S., L.S.A., to the Overton District.

UNIVERSITY OF CAMBRIDGE.—Dr. Michael Foster, the recently appointed Prælector on Physiology at Trinity College, Cambridge, has been elected a Fellow of the College. Professor Wood (of King's College), Dr. Herbert Davies (of the London Hospital), Dr. J. W. Ogle and Dr. Barclay (of St. George's Hospital), and Mr. Callender (of St. Bartholomew's) are among the Examiners for Medical and Surgical Degrees nominated by the Board of Medical Studies and appointed by the Senate.

ROYAL COLLEGE OF SURGEONS.—At a meeting of the Council on the 19th inst., Mr. Robert Boyle Travers, of Rostellan, co. Cork, was *admitted* a Fellow of the College; and Mr. Richard Bowes, of Richmond, Yorkshire, was also *elected* a Fellow, and will be admitted as such at an early meeting of the Council. The gentlemen are both Members of the College, their diplomas bearing date respectively May 21, 1841, and November 4, 1831. The first examination for the present session for Membership of the College will take place on the 4th proximo for the *primary*, and on the 10th for the *pass*.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the annual stated meeting of the College, held on Wednesday, the 18th inst. (St. Luke's-day), the following Fellows were elected as officers for the forthcoming year:—*President:* Dr. Alfred Hudson. *Censors:* Dr. Ringland, Dr. Gordon, Dr. James Little, Dr. Grimshaw. *Vice-President:* Dr. Gordon. *Treasurer:* Dr. Dwyer. *Registrar:* Dr. Finny. *Representative on General Medical Council:* Dr. Aquilla Smith. *Professor of Medical Jurisprudence:* Dr. Travers. *Examiners in Midwifery:* Dr. Johnston, Dr. Atthill.

ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.—At the first meeting of the session, to be held at the Scottish Corporation-hall, Crane-court, Fleet-street (Robert Druitt, F.R.C.P. Lond., F.R.C.S., President), on Saturday, October 21, at 7.30 p.m., Dr. T. O. Dudfield, Medical Officer of Health for Kensington, will be balloted for as an ordinary member; Mr. Gardiner Brown, F.R.C.S., will exhibit his patent self-acting deodoriser, for water closets, etc.; and Mr. Liddle will read a paper on "The Relation between Defective Ventilation and the Mortality from Tubercular Diseases, Convulsions in Children, Teething, Atrophy, and Debility, with a few Practical Suggestions thereon."

WEST KENT MEDICO-CHIRURGICAL SOCIETY.—At a meeting of this Society, on Friday, October 13 (Prior Purvis, M.D., in the chair), the following gentlemen were elected officers for the ensuing session:—*President:* J. M. Burton, F.R.C.S. *Vice-Presidents:* Edward Clapton, M.D.; A. Roper, M.R.C.S. *Council:* John Anderson, M.D.; William Carr, M.D.; Samuel Giles, B.A., M.D.; Ralph Gooding, B.A., M.D.; William Lockhart, F.R.C.S.; Charles Nind, M.R.C.S.; John C. Thorowgood, M.D. *Treasurer:* Prior Purvis, M.D. *Secretary:* John Prior Purvis, M.R.C.S. *Librarian:* G. G. Bothwell, L.R.C.P.E., M.R.C.S. The newly-elected President, J. M. Burton, Esq., delivered an inaugural address. The night of meeting was altered from the second to the *first* Friday in the month.

REGISTRATION OF STUDENTS.—The annual return of the number of gentlemen pursuing their Professional studies at the eleven recognised metropolitan Hospitals, which has just been prepared for Mr. Charles Hawkins, F.R.C.S., the Government Inspector of Anatomical Schools in London, exhibits an increase of 175 over the number of last year, and an increase in the number of new entries or freshmen of thirty-five. This increase is the more remarkable, owing to the large number of rejections during the present year at the University of London, the College of Surgeons, and Society of Apothecaries, to which allusion has been made on several occasions in the *Medical Times and Gazette*. The following represents the number at each of the Hospitals; but there are, of course, several students pursuing their Professional studies for the Fellowship of the College of Surgeons at each of these institutions who are not required to register:—

1. Guy's Hospital . . .	328,	including	86	freshmen.
2. University College Hospital .	271	,,	88	,,
3. St. Bartholomew's ,, .	256	,,	81	,,
4. St. Thomas's ,, .	145	,,	58	,,
5. King's College ,, .	121	,,	43	,,
6. The London ,, .	99	,,	29	,,
7. St. George's ,, .	85	,,	22	,,
8. St. Mary's ,, .	61	,,	21	,,
9. The Middlesex ,, .	46	,,	19	,,
10. The Charing-cross ,, .	40	,,	11	,,
11. The Westminster ,, .	23	,,	10	,,
Total . . .	1475	,,	468	,,

It will be seen from this analysis that University College has the largest number of new entries—for the first time displacing St. Bartholomew's in numerical strength, and running Guy's very hard.

OPHTHALMIA AT PLASHET SCHOOLS.—We are glad to find that the patients suffering from ophthalmia are nearly convalescent, and that four only of the number would receive permanent injury to their vision.

THE fifth Italian Medical Congress was opened at Rome on the 15th inst., at the Lyceum. Numerous delegates attended.

OUR contemporary, the *American Medical Times*, has changed its name to the *Practical Medical Times*.

THE Smethwick Local Board have decided to appoint a Medical Officer of Health for that district.

DR. G. W. DAVIDSON has been chosen Professor of Comparative Anatomy in the Royal Veterinary College, Edinburgh; and Dr. Robert Brown has been appointed to deliver the annual course of lectures on Geology, Physical Geography, and Palæontology in the Glasgow Institution.

MR. EBSWORTH, one of the late Medical Officers of Newington, not considering £19, which the St. Saviour's Board of Guardians had awarded to him for loss of office, consequent upon the amalgamation of the parish of Newington, as sufficient compensation, has given them notice that he intends to take counsel's opinion, with a view of testing the question in a court of law.

THE session 1871-72 of the Liverpool Medical Institution was opened by an introductory address from Edward R. Bickersteth, F.R.C.S. Ed., President, on Thursday, the 12th instant. There was an unusually large attendance of members present.

THE Medical Officers of four East London parishes have found, on an examination of the Regent's Canal, that the bad state of the water arises from the quantity of mud at the bottom of the canal, and they have called upon the directors of the Company to remove the cause of the nuisance by taking away the offensive accumulation.

WOMEN-STUDENTS OF CHEMISTRY.—At the conclusion of his inaugural address, the Professor of Chemistry at Newcastle, Mr. A. Friere-Marreco, stated, on behalf of himself and Professor Herschell, that they were prepared to receive lady-students on exactly the same footing as other students. Who shall say "The age of chivalry is gone"?

LIBERAL GUARDIANS.—At the meeting of the Guardians of the City of London Union on Tuesday, the Amalgamation Committee reported that they had considered the amount of compensation (£61) awarded by the Local Government Board to Dr. Robert Fowler for the loss of his office as District Medical Officer in the East London Union, and had no remarks to make upon it further than they did not think it excessive. Wonderful liberality indeed! Generous conduct to a man who for many years was their able, indefatigable, and faithful servant!

QUEEN'S UNIVERSITY IN IRELAND. — The Annual meeting of the University for the purpose of conferring degrees was held in St. Patrick's Hall, Dublin Castle, on Thursday week, the 12th inst. The Most Honourable the Marquis of Kildare, Chancellor of the University, presided, and amongst the members of the Senate present were—Sir Dominic J. Corrigan, Bart., M.P., M.D., Vice-Chancellor of the University; the Rev. P. Shuldham Henry, D.D., President Queen's College, Belfast; Edward Berwick, B.A., President Queen's College, Galway; and Sir Robert Kane, LL.D., President Queen's College, Cork. In the course of his address the Chancellor announced that the degree of Doctor in Science had been conferred on Dr. Wyville Thompson, formerly Professor in the Queen's University, and now Professor in the University of Edinburgh. He also mentioned that at the first examination in the Faculty of Medicine 119 candidates had presented themselves, of whom 86 had come up to the standard required by the examiners. Seventy-two gentlemen had been examined for the degree of M.D., of whom 52 proved successful, and the candidates for the Mastership in Surgery had numbered 48, of whom 41 had passed. A further allusion by the Chancellor to Mr. Joseph P. Pye, who received the degree of Doctor in Medicine with honours of the first-class, as having been highly complimented by the examiners on his answering, was greeted with applause. At the conclusion of the Chancellor's remarks, the following degrees in Medicine and Surgery were conferred:—M.D.—First-class: Joseph Patrick Pye, Galway. Second-class: James Magill, B.A., Cork. Third-class: Andrew Lang Browne, Belfast. Passed: Samuel Agnew, B.A., Belfast; Hazlett Allison, Belfast; Thomas Bennett, Cork; Robert A. Bernal, Cork; Robert Blood, Galway; David Graham Browne, B.A., Belfast; William R. Browne, Belfast; Moses Black, Belfast; John King Brigham, Belfast; Thomas Clarke, Belfast; William Burke Cuppage, Belfast; James Dawson, Cork; Benjamin Derham, Cork; Thomas Derham, Cork; Thomas J. Donnelly, Belfast; Bernard Doyle, Belfast; William Fleming, Galway; Anderson Forsythe, B.A., Belfast; A. M'Leod S. Hamilton, Belfast; Alexander Harbinson, Belfast;

Richard Henry, Belfast; Geo. Johnstone, Belfast; John Johnstone, Belfast; Leslie Jones, Cork; James King Kerr, Belfast; John Knox, Belfast; James Lawrence, Belfast; Charles Little, Belfast; Robert M'Bride, Belfast; James M'Carthy, Galway; John P. M'Carthy, Cork; John M'Conaghey, Galway; William M'Gowan, B.A., Belfast; Christopher J. M'Nally, Galway; George H. M'Swinney, Galway; James Martin, M.A., Belfast; Joseph Mark, Belfast; William Augustus Maybury, Galway; John Morrow, Belfast; W. Kirkpatrick Murphy, B.A., Belfast; Patrick C. O'Brien, Cork; Sutherland Rees-Phillips, Belfast; Robert Riddell, Belfast; William Rutherford, Galway; Richard Ryan, Cork; Ebenezer Sloane, Belfast; James E. Smith, Galway; Samuel J. Smith, Belfast; William Skelly, B.A., Belfast; J. Wilson Steele, Belfast; Francis J. Tuohy, Cork; George Vickery, Cork; John Woodrow Watson, Belfast; Alexander Weir, Belfast; John Wilson, M.A., Belfast; J. Bower Wilson, Galway; Joseph Wilson B.A., Cork; Alexander Young, Belfast. M.Ch.—Hazlett Allison, Belfast; Thomas Bennett, Cork; Robert A. Bernal, Cork; Robert Blood, Galway; Andrew Lang Browne, Belfast; David Grahame Browne, B.A., Belfast; William R. Browne, Belfast; John King Brigham, Belfast; William Burke Cuppage, M.D., Belfast; Benjamin Derham, M.D., Cork; Thomas Derham, M.D., Cork; George Johnstone, Belfast; John Johnstone, Belfast; Leslie Jones, C.E., Cork; James King Kerr, Belfast; John Knox, Belfast; James Lawrence, Belfast; Charles Little, Belfast; Robert M'Bride, Belfast; James M'Carthy, Galway; John M'Conaghey, Galway; William M'Gowan, B.A., Belfast; Christopher J. M'Nally, Galway; George H. M'Swinney, Galway; James Magill, B.A., Cork; James Martin, M.A., Belfast; William Augustus Maybury, Galway; William Kirkpatrick Murphy, B.A., Belfast; Patrick C. O'Brien, Cork; Walter W. J. O'Reilly, M.D., Galway; Joseph P. Pye, Galway; Sutherland Rees-Phillips, Belfast; Robert Riddell, Belfast; William Rutherford, Galway; Richard Ryan, Cork; James E. Smith, Galway; John Wilson Steele, Belfast; Francis J. Tuohy, Cork; George Vickery, Cork; John Woodrow Watson, Belfast; Joseph Wilson, B.A., Belfast; Alexander Young, Cork. Among the prizes and exhibitions awarded on the same occasion were the following:—*Prize in Composition*, limited to the competition of undergraduates in Medicine, awarded for the essay signed "Salus populi suprema lex," to William Thomson, B.A., Galway. *Exhibition*, awarded at the First University Examination in Medicine—Louis R. Dawson, Belfast, first in the non-Professional subjects of the course; two instalments of £20 each.

Professional Advertising.—The following resolution, passed at the annual meeting of the Middlesex Medical Society, Massachusetts, may convey a useful hint to members of the Profession in the Middlesex and other counties of the mother-country:—"Whereas the Medical Profession is not a trade, in the common acceptation of that term, and whatever tends to reduce it to that level is derogatory to its true dignity, and antagonistic to the usefulness of its members: Resolved,—1. That publication of petty accidents in local newspapers, accompanied by the name of the Medical attendant, at his instigation or by his connivance, is an infringement of both the letter and the spirit of the Code of Ethics. 2. That it is the duty of the members whose names may appear in such paragraphs to take all necessary steps to prevent the same occurrence in future, by notifying local publishers not to insert their names in notices of accidents. 3. That the above resolutions apply to all publications of Medical matters in secular journals, accompanied by the name of the Physician interested, when such publication is made at the instigation or with the connivance of a member of this Society."

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Rue Bayard, Pau.—Letters received with thanks. Dr. Hammond's book sent by post; delay from unavoidable causes.

Podophyllum.—In all probability there will be; but no official notice has yet been given.

Humanitas.—The subject has been frequently discussed, and will again most likely engage the attention of those interested in the treatment of insanity. No doubt there is some difficulty at present in providing accommodation for pauper lunatics in the metropolis and Middlesex. We cannot agree in the proposition of establishing a lunatic Hospital in the way suggested.

C.—We learn that Dr. Griffiths has returned to Hyères, and Dr. Marcet to Nice for the winter. Invalids may be sure of being welcomed by the southern French population.

Dr. de H.—Gout is considered to be connected with excess of uric acid, to arise from mal-assimilation and excess, to attack the smaller joints, to affect the middle-aged, and to lead to deposits of lithate or urate of soda. Rheumatism is connected theoretically with lactic acid, is considered to arise from cold, and attacks the larger joints and heart in young persons. Rheumatic gout is an ill-defined term, more popular than scientific. Sometimes it is used for true gout in the young, or for rheumatism in the smaller joints, or for chronic rheumatic arthritis with enlargement of heads of bones from bony deposit.

Nitrite of Amyl in Cholera Collapse.

To the Editor of the Medical Times and Gazette.

Sir,—Permit me to suggest a trial of the inhalation of the vapour of the nitrite of amyl in the collapse stage of cholera. The physiological action of the nitrite appears to be a lowering or paralysing of the inhibitory function of the sympathetic nerve; and the collapse of cholera is, in my opinion, due to an exalted and perverted state of this inhibitory power.

I am, &c.,
J. Davis,
Assistant-Surgeon 39th Regiment.

Ferozepore, Punjaub, September 13.

Glasgow.—Sir Hans Sloane, thirty years before his death, presented to the Company of the Apothecaries his botanical gardens at Chelsea, and a statue of the founder is erected in front of the greenhouse. The foundation of the British Museum was the immediate result of his will, in which he directs that after his decease—in 1753—the whole of his museum of natural and artificial curiosities, which had cost him £50,000, should be offered to Parliament for the moderate sum of £20,000, to be paid to his family. Such was the origin of the British Museum, which was opened in 1759.

Newcastle.—The *Staffordshire Weekly Times* of the 14th inst. contains a well-written article on the frightful death-rate of the above town, in which the writer shows with much force that 43 per 1000 is a mortality which could be lessened if proper preventive measures were employed, and concludes with the following apposite quotation from the *Home Nurse*:—"At the present day few would hesitate to admit that in its origin infection depends on the existence of unsanitary social condition, and that if cleanliness, ventilation, and good habits were universally observed, and efficient drainage, plenty of wholesome water, and abundance of nutritious food enjoyed by all, its ravages among mankind would cease, or become excessively rare."

Infantile Thrush.

To the Editor of the Medical Times and Gazette.

Sir,—The "Soldaten Lieder" just over, the married ladies have their cards full; the hopes of pretty wallflower maidens, who began to think that men may come and men may go, have been raised by the advent of a bachelor with half a lung and a glass eye, tacked on to £5000 a year.

Mrs. Hyde Parker, in great form, splendidly dressed, is surrounded by the *crême de la crême* of cavalry exquisites. The apoplectic family Practitioner, too fat to dance, leans against a pillar in the room—*Eheu fuimus!* His thoughts travel back to work, especially to Mrs. Hyde Parker's child, suffering from thrush, and not so well to-night.

The Registrar-General reports, in 1869, the deaths of 571 males—552 under 1 year, one man over 65; also, 459 females—430 under twelve months, one over 55, and an old lady over 75.

Hot weather, bad milk, a dirty bottle, a close unwholesome nursery, the slops unemptied, windows never opened, damp linen drying by the fire—the nurse young and flighty, or old and coddling, possibly overworked in a family crowded in a small house—the mother averse to giving up dinner parties or spoil her figure by nursing, possibly inclined either to study "Sartor Resartus," stop at country houses, or go to balls. Including a weakly constitution, stuffing, or improper food, here are the conditions to induce disease.

A fair number of officers' families come under treatment, but the larger proportion of patients are poor, consequently exacting. Yet thrush in squalor and misery becomes very amenable to treatment, for a very good reason—the child has breast-milk. The mother invests a few pence in borax and honey, gives internally chlorate of potash, takes castor-oil herself, so ends the matter. But read this extract of a letter written by a lady who has been Chevassing a week without Medical assistance:—"My baby seemed to be getting on, but the thrush has never left him; his hot and inflamed mouth is coated with plaster of Paris; the glands of the neck are enlarged; he is terribly chafed below; the secretions are all wrong. Yesterday he began to vomit every time he took nourishment. I gave him arrowroot and brandy, but that, too, returned. The diarrhœa continues; he looks very bad, and I am THINKING of trying a wet-nurse, but with your advice first." Of course one goes to find treatment too late; the mother is spared a coroner's inquest; the obloquy falls on—Yours truly.

Unattended to, this deceptive complaint becomes dangerous: the neglected patient, put in its crib to-night, may be dead and cold before the morning. Too much space would be taken up giving full details. From that masterpiece, "The Wasting Diseases of Children," by Eustace Smith, we learn that the concretions are due to a cryptogamic vegetation, the sporules of which, increasing with great rapidity, form tubular fibrils. Mr. John Jorrocks realised the pain when he blistered his mouth with the hot kidney. The excoriations about the nates depend on aerid secretions.

In treatment, our object is to destroy the parasite with hyposulphite of soda, to apply borax and glycerine, convert the drawing-room into a nursery, procure a wet-nurse, correct secretions. Some people, using nitrate of silver or sulphate of copper to remove the curdy coating, disbelieve the idea of honey under fermentation increasing irritation. All concur in recommending the universal panacea, cod-liver oil, and change of air subsequently———

The band strikes up the "Night-bell" galop; Mrs. Currie is sleepy and snappish; my daughter Decima, having hooked a moon-faced militiaman (addicted to the *trois temps*), naturally refuses to come home. Poor child! why not enjoy herself for once? Already the champagne has started a twinge of gout, and accursed be the

Cheltenham, October, 1871. Night-bell.

Foot and Mouth Disease in Children.—Mr. Wyman, the chairman of the Chamber of Agriculture at a late meeting at Hertford, said that the "foot and mouth disease" was very prevalent in his own neighbourhood amongst children. We shall be obliged to any of our subscribers, who have seen such cases, for some information respecting them.

A Governor of the Bedford Infirmary.—Next week we shall go somewhat into detail with respect to the subject of increasing the accommodation at the Infirmary. There cannot be a doubt that such accommodation is required, and should and will be afforded. Our correspondent may rely on the valuable statistical tables furnished by the sub-committee. The further information promised by "A Governor" will be acceptable, and should be forwarded at his earliest convenience.

Plympton.—We had hoped that discussion on the small-pox case in this village had ceased, but we regret to find that it has not. At the meeting of the Board of Guardians on the 13th, the subject was again brought before the meeting. It appears that Mr. Miles had written to the Poor-law Board, giving a detailed account of the transaction, and requesting to be informed "whether the course he pursued in the matter was right or wrong, and whether any of the authorities of the Union House had the power to refuse the admission of the case sent there. This communication was sent to the Board of Guardians, in order that they might furnish the Local Board with any observations which they might desire to make on Mr. Miles's letter. After some discussion, the following resolution was carried "unanimously, amidst much applause":—"That this Board is of opinion that Mr. Miles was not justified in sending the patient into the house, he not being a pauper, and Mr. Miles not having previously consulted the Medical Officer of the Union on the subject." Now, it would be much more creditable to the Guardians of the Plympton Union to erect a proper place for the reception of persons suffering from infectious disease than to pass impertinent resolutions like the above. It is in the highest degree reprehensible that in a union containing a population of 20,489 there was not a single ward in the workhouse fitted to receive a small-pox patient—and this, too, at a time when the disease was epidemic in most parts of England. A vote of censure on the Guardians for their laxity in this respect would be far more justifiable than the vote they have passed on Mr. Miles. With respect to the question of Medical etiquette involved, that is of little moment when compared with the public interests.

Some Curious Eccentricities in Medical Etiquette.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Would you permit me to point out what I feel sure must appear some of the inexplicable peculiarities of Medical practice to an impartial outsider.

Medical men often complain of the sale of Church livings—a system by which an inferior man with money will too often easily beat a superior man without that appendage. Again, promotion by purchase in the army does not appear to please most of my Medical friends; yet Doctors sell their practices most unscrupulously, praising to the very sky any fellow, however ignorant, who will give the largest sum for their disinterested introduction.

Medical men do not hesitate to protest against the vicious abuse of patronage common enough in the other professions; but will anyone who knows the way in which Medical men exert their own influence in getting appointments of a Professional character filled up think them more virtuous? One has but to take up the advertising columns of a Medical paper to find that countless appointments are openly offered for sale to the man who will pay most for them.

Do not Medical men object to curates without degrees, and did not a good many think it an evil precedent when a bishop was recently appointed to a Welsh see who was not a University man? but how many Doctors, I wonder, seriously object to unqualified and untrained assistants? Yet, mark, the latter may be absolutely ignorant of all Medical knowledge, but the curate must have passed the bishop's tests before he could be licensed.

Again, what outeries there are about Doctors underselling one another! but are not some Medical men worth fifty times as much as others? All Royal Academicians do not charge the same price for their paintings. In a large town the youngest Physician is often expected to charge the same fee as the most experienced and accomplished man in the town—if the young man charges less, he is said to be underselling; yet, if all the Physicians charge the same, are not the seniors in reality very greatly underselling their comparatively unknown and relatively inexperienced juniors?

The Medical men who will loudly complain of abuses at the Horse-guards, where many lucrative posts too often are held by one general, see no blame in the conduct of eminent Medical men who cling to all their appointments like grim death, and resolutely keep down their ablest juniors by retaining posts, both honorary and paid, of which they cannot or will not execute the duties.

Is it not notorious, too, that men who will scout their juniors for having an uniform charge of one shilling or eighteenpence a visit, will hold clubs and snap at parish appointments not producing twopence a visit?

Is it not strange that Medical opinion should tolerate the wonderful elasticity of the charges of some well-established Surgeons in certain large towns? Is there rhyme or reason in a man who charges two guineas for going four or five miles to see a rich patient and yet eagerly grasps clubs at three shillings or half-a-crown a year? Is it right, again, that many "highly respectable" Surgeons in our very large towns should systematically ignore a most able and talented Hospital staff, resolutely refusing to meet them in consultation, and never voluntarily calling them in, but should select old college friends when a second opinion is needed—men at the bottom of the tree, among the humblest of the general Practitioners there, of indifferent character, and too often very far from being good Physicians or Surgeons? These "able amateur consultants," in return for the guineas they have received (but not earned), do the same kind office for the friends who have kindly assisted them.

An impartial observer would be struck, one fancies, by these peculiarities of Medical etiquette and Medical practice. I am, &c.,

October 3. An Oxford Man.

The late Dr. Symonds.—The *Worcester Herald*, in a review of "Miscellanies," by Dr. J. A. Symonds, says:—

"The late John Addington Symonds was born at Oxford in 1807. His immediate ancestors had been settled for about a century in Kidderminster, whither they had removed from Shrewsbury. They claimed a common descent with the family of Symons or Symeon, of Pyrton, the heiress of which branch married John Hampden. Dr. Symonds' life was not sensational, for at a very early age his future was foreshadowed. Adopting Medicine as a profession, he soon displayed a strong inclination for the study not only of subjects closely associated with Medicine, but of those connected with general literature also. He was eminently gifted by nature with soundness of judgment and logical precision, and when settled into successful practice at Bristol, Dr. Symonds became a marked man in the worlds of classic literature and practical science."

Precedence in India.—The *Indian Medical Gazette* for September 1 has an able leading article on the injustice practised towards certain members of our Profession in respect to "precedence," and concludes an eloquent denunciation of the injustice as follows:—

"While, as a matter of justice and right to the Profession, thus asserting a *claim* to consideration not accorded, we can nevertheless afford to do without it; as, if we recollect right (except the substitution of one word), Milton wrote, 'None sure will claim in *Styx* precedence,' so, many among us are indifferent to the manner in which the matter is settled in Indian life. They would rather 'stand not on the order of their going,' than be respected for their place rather than for themselves. For they recollect the old saying—'The top rooms of tall houses are often badly furnished, and are, therefore, "contented to sit below."' Neither is the fable of the 'Fox and the Grapes' in the least applicable, for the fox had no right to his grapes, while we have every right to ours."

Mortality of Soldiers in India.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—A great many statements have been made of late with respect to the effect of the climate of India on European soldiers serving there. It has been stated that young soldiers die like flies, that the death-rate increases with every year of age, or, at any rate, that the death-rate is higher with each advancing five years of life; and while we have been told, on the one hand, that the older a man is the more unfit he is for the country, it has been argued, on the other, that men should not be sent out till they had passed a certain age, in order to enable them to withstand the depressing effects of the climate. So probably there is some happy medium of years during which the death-rate would be lowest; and if we could enlist men all at about the proper age, and keep them in India for the right number of years, we should have done the best thing, as far as saving life goes, that we possibly could do. The last Blue-book publishes, at pages 194 and 275, the usual mortality tables according to age, where, as usual, the death-rate is lowest under 20, and goes on increasing every five years afterwards. Then we are told that these tables prove what they ought not to prove, and that though, according to statistics, the death-rate is lowest of all under 20, it ought not to be so. Somehow or other, tables not proving what they seem to prove are very unsatisfactory statistical tables; and if some others could be contrived which would not mislead ordinary readers it would be an improvement. According to these tables, the death-rate in Bengal per 1000 of strength for the years 1862-66, and in Bombay and Madras for 1861-66, was 7·68 under 20, 16·11 from 20 to 25, 24·64 from 25 to 30, 32·18 from 30 to 35, 41·94 from 35 to 40, and 56·01 from 40 upwards. The ratio of deaths per 1000 of strength in Madras and Bombay for 1861-68 seems to have been, for different ages, as follows:—5·62 under 20, 14·47 from 20 to 25, 21·60 from 25 to 30, 30·21 from 30 to 35, 39·75 from 35 to 40, and 53·79 for over 40. Of course, these tables, if they prove anything, seem to prove that the death-rate under 20 is lower than at any other period, equally as they prove that the mortality is higher with advancing age; and if the latter is to be accepted as true, and the former rejected as false, it is surely fair to ask if some statistical tables could not be framed which would be true throughout. Allusion has been made to what might be proved by carefully comparing statistics according to age among men who have been the same length of time in India, and some most valuable statistical tables could, without doubt, be constructed. Why should we not have some carefully drawn-up tables showing whether the death-rate increases year by year among men who, from 18 to 20, have been serving continuously in India, or whether it increases simply with the age at which men are landed for the first time in India, or what is the proportionate increase for long tropical continuous service, and late arrival for the first time in India? It is easy to imagine that there would be a high mortality per 1000 among a number of men, all with ten or twelve years' service, many of them with damaged constitutions, who for the first time were landed in a tropical climate; and with statistics being brought forward regarding an increase of mortality, with each quinquennial period of life in India, it is allowable to ask whether quinquennial periods of continuous Indian service are meant, or whether it is only meant that the later a man or a soldier comes to India the more likely he is to die. If the latter is meant, it points pretty strongly against sending men over a certain age to India. Why should old soldiers be killed off any more than young ones? Of course every regiment coming out to India under present arrangements must bring out men with very different amounts of service, and at very different ages. Surely some tables could be formed showing the death-rate of British soldiers per 1000 for each advancing quinquennial period of continuous Indian service, or for each advancing year of continuous Indian service, and also the results of arrivals in India for the first time at different ages. Some tables might also be constructed showing the total number of days absent from duty of men at the different ages, and also with respect to the time during which they had continuously served in India. Perhaps some such tables would prove to demonstration that very little actual service could be got out of mere boys of 18 or 19; and it would be a more satisfactory thing to have tables proving what would be acknowledged universally to be true than to have tables proving one thing, and then attempts made to explain them away till they are made not at all to prove what any ordinary reader would suppose they proved. If tables showing the loss of service at different ages were ever compiled, it would be well if all days during which men were merely detained in Hospital were counted against them equally with those days during which they were on Hospital diet. Looking at the constitution of British regiments coming out to India with men at several different periods of life, it would involve the expenditure of a good deal of time and trouble to draw up statistical tables showing the death-rate and loss of service, both with respect to age and with respect to time

actually served continuously in India; but it is a very different thing whether you form tables of mortality and loss of service, constructing your statistics from the returns of a mixed multitude who arrived in India with their constitutions in very different states, at all ages from 18 to 45, for the first time, or carefully separate all men into classes according to the ages at which they arrived for the first time in India, and according to the time continuously served there. Thus, all men arriving in India at 18 could belong to one class, and the ratio of deaths and loss of service could be recorded against the class year by year for the entire period of their Indian service. Those arriving at 19 in India could form another class; those arriving at 20 another; those arriving at 30 another; and so on. We would soon find out the death-rate and loss of service for each year of continuous Indian service—with respect, also, to the time of life at which Indian service was begun. As at present formed, it cannot be learned from the Blue-book statistical tables whether it is continuous Indian service or the arrival in India at a late period of life that has most to do with the increasing mortality for each advancing quinquennial period. In conclusion, it may be remarked that if such statistical tables as proposed above were compiled for India, they could also be framed for all our other possessions.

I am, &c., SCALPATOR.

COMMUNICATIONS have been received from—

Mr. J. DAVIS; Mr. UNSWORTH; SCALPATOR; Mr. T. C. WHITE; Mr. R. G. WHITFIELD; Dr. CARNEGIE; Dr. W. CAYLEY; Mr. H. W. SHARPIN; Mr. W. READ; Mr. DOGGETT; Mr. T. FLOWER; Mr. R. ELLERY; Mr. G. MILES; Dr. MCINTOSH; Dr. W. V. LUSH; A FOREIGN SUBSCRIBER; Mr. THORPE; Dr. MACCALL; Mr. RANGER; Dr. PROSSER JAMES; Mr. G. LAWSON; Mr. SMITHSON; Mr. SILBURN; Mr. J. CHATTO; Mr. LIEBREICH; Mr. H. MORRIS; Dr. J. JAMES RIDGE; Dr. J. W. MOORE; Dr. DAY.

BOOKS RECEIVED—

University College Calendar, Session 1871-72—Report of the Sewage Inquiry Committee, Parish of Birmingham—Statistical Tables of the Patients under Treatment in the Wards of St. Bartholomew's Hospital during 1870—A Lecture on Diarrhœa and Cholera, by John Dixon, M.D.—Cases of Diarrhœa and Cholera treated Successfully through the Agency of the Nervous System, by Dr. John Chapman—St. Bartholomew's Hospital Reports, vol. vii.—Smith on the Preservation of Sight—The Annual Oration delivered before the Medical Society of London on May 1, 1871—Dr. Henry Adams on Intermittent Malaise—Anstie on Neuralgia and the Diseases that Resemble it.

PERIODICALS AND NEWSPAPERS RECEIVED—

Philadelphia Medical Times—Western Daily Mercury—The Staffordshire Weekly Times—The Perthshire Constitutional and Journal—Medical Press and Circular—Boston Medical and Surgical Journal—Nature—The Jamaica Gleaner—Pharmaceutical Journal—Londonderry Sentinel.

APPOINTMENTS FOR THE WEEK.

October 21. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; King's, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9½ a.m.: Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

ASSOCIATION OF MEDICAL OFFICERS OF HEALTH, 7½ p.m. Meeting.

23. *Monday*.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

MEDICAL SOCIETY OF LONDON, 8 p.m. Adjourned Discussion on Mr. Gay's Paper on "Crural Venosity." Communications by Mr. Spencer Watson—"1. Traumatic Dislocation of the Crystalline Lens; 2. Congenital Displacement of both Crystalline Lenses; 3. A convenient Method of applying Cold to Inflamed Parts." Mr. John Pennefather, "On the Physiology of Sound" (with illustrations).

24. *Tuesday*.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8½ p.m. Mr. J. W. Haward, "On Ether and Chloroform as Anæsthetics." Mr. Le Gros Clark, "Case of large Biliary Concretion in the Ileum."

25. *Wednesday*.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 2 p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

26. *Thursday*.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; West London, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

27. *Friday*.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

CLINICAL SOCIETY, 8½ p.m. Dr. C. T. Williams, "Cases illustrating the Contraction of Cavities in Phthisis." Dr. John Murray, "On a Case of Paracentesis Thoracis." Dr. Anstie, "The Continuation of a Case previously reported." And other Papers.

QUEKETT MICROSCOPICAL CLUB, 8 p.m. Mr. T. Charters White, "On the Microscopical Structure of the (so-called) 'Nerve' of a Tooth."

VITAL STATISTICS OF LONDON.

Week ending Saturday, October 14, 1871.

BIRTHS.

Births of Boys, 1097; Girls, 1157; Total, 2254.
Average of 10 corresponding weeks, 1861-70, 1996·7.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	618	657	1275
Average of the ten years 1861-70	657·3	628	1285·3
Average corrected to increased population	...	...	1414
Deaths of people aged 90 and upwards.	...	...	...

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561189	3	6	3	1	5	...	2	1	7
North ...	751638	17	6	13	7	4	...	5	2	16
Central ...	333887	3	4	1	...	2	2	2	2	11
East	638928	14	6	5	...	7	2	9	4	18
South	966132	24	12	7	1	9	2	6	3	17
Total	3251804	61	34	29	9	27	6	24	12	69

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	30·106 in.
Mean temperature	45·5°
Highest point of thermometer	59·2°
Lowest point of thermometer	31·2°
Mean dew-point temperature	39·8°
General direction of wind	Variable.
Whole amount of rain in the week	0·00 in.

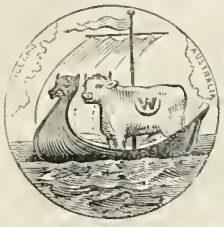
BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, October 14, 1871, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1871.*	Persons to an Acre. (1871.)	Births Registered during the week ending Oct. 14.	Deaths Registered during the week ending Oct. 14.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3263872	41·8	2254	1275	59·2	31·2	45·5	7·50	0·00	0·00
Portsmouth ...	113450	11·9	83	42	59·2	38·0	49·1	9·50	0·07	0·18
Norwich	80533	10·8	54	31	55·8	31·0	43·4	6·33	0·15	0·38
Bristol	183298	39·1	119	79	...	...	...	...	...	...
Wolverhampton ...	68476	20·2	48	43	57·3	32·1	45·6	7·55	0·21	0·61
Birmingham ...	344980	44·1	242	167	58·6	33·0	45·8	7·66	0·00	0·00
Leicester	95882	30·0	70	50	58·0	29·7	43·8	6·55	0·00	0·00
Nottingham ...	86929	43·6	65	46	59·4	30·1	44·7	7·06	0·02	0·05
Liverpool	493649	96·8	364	294	58·7	38·2	46·6	8·11	0·20	0·51
Manchester ...	356099	79·4	240	201	...	...	..	...	...	...
Salford	125422	34·3	110	81	61·3	30·2	44·9	7·17	0·34	0·86
Bradford	146987	22·3	75	64	57·0	34·6	43·9	6·61	0·02	0·05
Leeds	260657	12·1	159	134	57·0	32·0	43·8	6·55	0·01	0·03
Sheffield	241507	10·6	190	125	59·0	30·5	44·8	7·11	0·35	0·89
Hull	122266	34·3	83	61	55·0	27·0	42·5	5·84	0·11	0·28
Sunderland ...	98797	29·9	82	92	...	...	...	...	...	...
Newcastle-on-Tyne	128677	24·1	95	90	56·0	33·0	42·9	6·06	0·00	0·00
Edinburgh	201728	45·6	136	118	59·7	28·0	43·4	6·33	0·20	0·51
Glasgow	479227	94·7	309	293	...	...	...	...	...	...
Dublin (City, etc.)	310565	31·9	140	183	66·7	30·0	51·9	11·06	0·07	0·18
Total of 20 Towns in United Kingd'm	7204001	33·8	4918	3469	66·7	27·0	45·2	7·33	0·11	0·28

At the Royal Observatory, Greenwich, the mean reading of the barometer in the week was 30·11 in. The highest was 30·33 in. on Friday morning, and the lowest 29·59 in. at the beginning of the week.

* The figures in this column are the unrevised numbers enumerated in April last, raised to the middle of the year by adding 1-40th of the rate of increase which prevailed between 1861 and 1871. As the population of Dublin and its suburbs showed a decline between the Censuses of 1861 and 1871, the enumerated number in April last has been inserted for that city, the population being assumed to be now stationary.

Fox's "Palatable" Castor Oil



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WHITEHEAD'S SOLID ESSENCE OF BEEF,

The only Pure Solid Extract of Beef, 1 lb. equalling 42 lbs. of Butchers' Meat.

SOLIDIFIED SOUP SQUARES

No house should be without, as they are one-fourth the cost of ordinary-made Soups. 16 Squares (each make 1½ pint) occupy only the same space and are the same weight as One Pint Tin of Preserved Soup.

Wholesale of Copland & Co., Travers & Sons, Crosse & Blackwell, E. Lazenby & Sons, and of the Manufacturers, at 8 and 9, Lime-street-square, London.

MELBOURNE MEAT-PRESERVING COMPANY (LIMITED).

COOKED BEEF AND MUTTON, IN TINS,

With full Instructions for use. PRIME QUALITIES AND FREE FROM BONE.

Sold Retail by Grocers and Provision Dealers throughout the Kingdom. Wholesale by

JOHN McCALL & CO., 137, HOUNDSDITCH, London.

SYR. FERRI PHOSPH. CO. (AMERICAN).

PARRISH'S CHEMICAL FOOD,

PREPARED BY PARRISH, OF PHILADELPHIA,

and imported by his SOLE AGENTS,

P. AND P. W. SQUIRE, 277, OXFORD-STREET, LONDON, W.

For convenience and security, this preparation is supplied in 4 oz., 8 oz., and 1 lb. bottles.

Each Bottle bears the name SQUIRE on the Seal and Label.

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Messrs. BULLOCK & REYNOLDS

Beg to direct the attention of the Profession to the experiments upon Medicinal Pepsin by Professor Tuson, recorded in the "Lancet," Aug. 13th, 1870, which incontestably prove the very great superiority of their preparation in point of digestive power over every other Pepsin, British or Foreign. Dose—Two to four grains.

Messrs. BULLOCK and REYNOLDS will be happy to forward a Reprint of Professor Tuson's Paper on application.

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WESTERTON'S PATENT

ZYMOTIC DISINFECTING FLUID

Prevents the spread of infection; protects the nurse and those about the sick-room. Sponging over the body with the Fluid disinfects the emanations from the skin and (being volatile) exhalations from the lungs of the sufferer. Destroys the noxious properties of the excretions, and purifies the atmosphere.

PREPARED BY

W. C. WESTERTON, 85, Abingdon-villas, Kensington, London

and may be had of all Chemists, in bottles, 1s., 1s. 9d., and 3s. 6d.; 10s. per gall.

NEPENTHE.

PREPARED EXCLUSIVELY FROM OPIUM. (Dose the same as Tinctura Opii.) Price 8s. per lb.

From the "Lancet," Dec. 18, 1869.

NEPENTHE, OR ANODYNE TINCTURE (PREPARED BY MESSRS. FERRIS AND CO., BRISTOL).

This preparation really consists, as stated, solely of opium, resembling somewhat the liquid extract of the British Pharmacopœia. It is claimed for it that it does not produce headache, stupor, giddiness, depression of spirits, diminution of nervous energy, prostration of strength, nor constipation; it is doubtless less stimulating than those preparations of opium made with the solid and crude drug; and a further commendation of Nepenthe is its uniformity of strength. The Nepenthe intended for subcutaneous injection is of double the ordinary strength; and that it is really so we have verified by analysis.

May be procured direct from the Sole Manufacturers,

FERRIS, BOORNE, TOWNSEND, and BOUCHER,
Wholesale Druggists, Bristol,

And through all leading Wholesale and Retail Chemists in Great Britain and the Colonies.

NOTICE.—Notwithstanding the enormous and increasing advance in Opium, the price of Nepenthe remains the same, and it is now the cheapest as well as the best preparation of this important drug.

N.B. Two Pounds NEPENTHE, or One Pound NEPENTHE and Two Pounds Ferris and Co.'s SYRUP of CHLORAL, will be sent, Carriage Paid, to any Railway-station on receipt of P.O.O. for 16s.

ORIGINAL LECTURES.

CLINICAL LECTURES ON OPHTHALMOLOGY,

DELIVERED AT

St. Thomas's Hospital,

By R. LIEBREICH,
Ophthalmic Surgeon and Lecturer to the Hospital.

LECTURE II.

EXAMINATION OF THE EYE WITH THE OPHTHALMOSCOPE.

GENTLEMEN,—The plan which I at first proposed to follow leads us to-day to the examination by means of the ophthalmoscope. I defer, however, speaking of theory to a special course on this subject. I will just tell you as much as will enable you to use that instrument in practice.

I begin with its most simple application—namely, with the mere illumination of the eye for the examination of the refracting media. Hitherto you have not as yet to consider dioptrical conditions, but only to illuminate the eye with the mirror. The light of a flame placed at the side of a patient is reflected into his eyes by means of a concave mirror; and, by looking through the centre of that mirror, you will be able to observe his pupil luminous with a red light. This red light comes from the fundus, and passes through the refracting media of the observed eye, before it reaches the observer. It there be any opacities within the refracting media, they will interrupt the course of the red light, and appear as black spots in the red pupil.

The first question which you have to ask yourselves, on seeing those black spots, is—In what part or parts of the refracting media are they situated? for opacities in the cornea, crystalline lens, and vitreous body may at first sight appear perfectly alike. You can most conveniently arrive at a differential diagnosis, if you attend to the following points, which I will illustrate by an example:—Supposing there be opacities in the centre of the cornea as well as in the anterior and posterior surface of the crystalline lens, and in the centre of the vitreous body, and that they cover each other, then those opacities will appear as one single black spot in the fundus, if the eye is observed in the axis of the pupil. But if their respective positions are changed, either by the movement of the head of the observer or by making the patient roll his eye, the opacities which were before seen coinciding in one part now appear isolated. To understand the way of localising those opacities from the change of their mutual position, you will have to consider the following principle:—

The centre of rotation of the eyeball remains unchanged in these movements. Everything situated in front of it is turned in the direction in which the eye moves; but everything situated behind it is turned in the opposite direction. Since the posterior pole of the crystalline lens is situated so very close to the centre of rotation of the eye, its displacement, during the movements of the eye, will be almost *nil*. Consequently, an opacity at the posterior pole of the crystalline lens will remain during the movements of the eyeball almost fixed. For similar and obvious reasons, an opacity in the anterior pole of the crystalline lens moves only a little, and remains in the centre of the pupil; that in the cornea turns more considerably to the side to which the eyeball has been rolled, and passes over the margin of the pupil; whilst that of the vitreous body moves in the opposite direction.

As regards the movements of the opacities of the vitreous body, you will have to distinguish the apparent from the real ones which are a consequence of its partial or total softening. This change of position I consider a most useful and practical diagnostic sign. Other means, as the use of the various concave and convex glasses, require more careful investigations into the optical conditions.

After the refracting media have been examined by the mere illumination by the ophthalmoscope, and after the result of the examination by lateral illumination has been controlled so as not to over-estimate the easily observed opacities, you may now begin with the examination of the very fundus of the eye, and first with the observation of an inverted image. For that purpose you have to stand about twelve to fifteen inches from your patient, and, after having illuminated his eye in the same manner as before, hold a lens of two and a half inches about two inches before the eye of the patient. This lens collects all the luminous rays coming from the illuminated fundus into an inverted image, which is thrown from two to three inches in front of the lens, in a direction between it and the observer. This fact is especially to be noted, lest you involuntarily arrange your accommodation for the distance of the lens, whilst the image situated in front of the lens has to be considered.

The patients whom I am going to show you to-day have naturally or artificially dilated pupils. But I sincerely hope that in a short time you will have acquired practice enough in the use of the ophthalmoscope to enable you to examine accurately the fundus of an eye even with a contracted pupil. Let me here warn you not to abuse atropine for a mere ophthalmoscopic examination. I am sorry to say that I have frequently seen *strong* solutions of atropine used for the sole purpose of facilitating ophthalmoscopic examination. By its means patients have been prevented from attending to their work for a week or so, which, especially as regards the poor, is an injustice. Many Medical men have the wrong notion that, for the ophthalmoscopic examination of the eye, atropine is absolutely necessary; and often patients have been brought to me by their Medical attendant, who had had their pupils previously dilated by atropine in order that I might have no difficulty in examination. This was as disagreeable to me as to the patients, for I could not test the accommodation of their patients.

There are, however, cases of amaurotic or highly amblyopic eyes, in which the instillation of a drop or two of a *weak* solution of atropine will do no harm. If the pupil is very contracted, and if there are opacities of the refracting media, even the most practised observer would be obliged to have recourse to atropine. To-day's cases will not offer you any of these difficulties. On the contrary, by correctly adjusting mirror and lens, you will immediately recognise the red surface of the fundus. The aspect of this fundus is very variable in different individuals, as to colour and drawing. If we wish to understand the signification of these variations, we should first study the effect which is produced by the different elements of the deeper eye-membranes upon the general ophthalmoscopic aspect of the fundus.

The retina, being almost transparent, has only a small effect on this aspect, which we will pass by for the moment and speak of later.

On the contrary, the choroid has the greatest influence upon it, its different layers taking part in this influence in different proportions. We have to distinguish between the effect of the following layers:—*First*, the most anterior—that is, the layer of pigmentary epithelial cells; *second*, the layer called *chorio-capillaris; third*, the strongest posterior layer, which is composed of a very close network of vessels and pigmentary tissue supporting these vessels. The different degrees of pigmentation in the anterior and posterior layer give the principal reason for the great variations in the aspect of the fundus. The anterior part of the choroid is composed of a simple layer of pigmented hexagonal epithelial cells. If the pigmentation of these cells is very dark, as is the case in persons with black hair and dark eyes, this layer is capable of covering almost completely the other parts of the choroid, and then the fundus appears brown instead of red. If, on the contrary, the pigmentation of epithelial cells is very weak, as is the case in persons with fair hair and blue eyes, this layer permits us to distinguish the posterior parts of the choroid. The tissue supporting the vessels, being of weak pigmentation, also enables us to recognise the network of choroidal vessels, even to the smallest branches. These latter are covered, and the largest vessels only are visible, if the epithelial cells are of weak pigmentation, but the tissue rather dark. In such cases the aspect of the fundus is a singular one, and has often occasioned erroneous diagnosis of pathological alterations. All or part of the fundus seems to be covered with irregular grey spots, separated by a network of more or less well-defined little red bands. A more attentive examination teaches us that these little bands are the principal branches of choroidal vessels, and that the grey spots are formed by the pigmented interstices, in which the smallest vessels are covered by the pigmented connective tissue.

We did not mention the effect of the second layer (the *chorio-capillaris*), because we believe that this layer has no effect at all on the ophthalmoscopic appearance of the fundus of the eye. This (which I expressed many years ago) was, at first, energetically contested by other observers, who attributed to this layer the principal effect of the more or less intense red colour, and of the granulated aspect of the fundus.

This question had the greater importance, as conclusions for pathological alterations could be drawn from the colour of the fundus; if, for instance any hyperæmia of the *chorio-capillaris* could change the colour and appearance of the fundus.

If you examine anatomical preparations of the choroid injected with a substance coloured with cinnabar, for instance, you will see that the *chorio-capillaris* forms so close a network of vessels that it alone determines the microscopical aspect of the preparation. But such is not the appearance in the living eye. Here the vessels are not filled with an opaque substance like cinnabar, but with blood, a transparent liquid which appears red if it has a certain thickness—equal, for instance, to the diameter of the smallest bloodvessels which are visible to our naked eye. But if the blood only forms columns of as fine diameter as the capillaries of the choroid, it does not appear at all red, but only of a very light yellow colour.

A drawing, made in lines as delicate, and of an equally pale colour, would be nearly invisible, even under the enlargement given by the ophthalmoscope, though made on an entirely white fundus. It is utterly impossible to see it in the red-brown fundus formed by the posterior parts of the choroid, the more so as it is not denuded on the anterior surface, but covered by a layer of epithelial cells, which, even in the lowest degree of pigmentation, suffice to efface any effect of this fine second choroidal layer; and so it is not at all the *chorio-capillaris*, but, on the contrary, the layer of epithelial cells, which forms the characteristic granulations of the fundus, the very exact observation of which had so great importance for the diagnosis.

This opinion, so vigorously contested when first advanced by me, is now generally adopted, and I hope you will all be convinced that it is possible to recognise even the isolated cells as I have described them. The cases most appropriate for this study are those of a moderate degree of pigmentation, like Figures 4 and 5, Plate II., of my "Atlas." In such cases you can really count the cells, and there is no possible doubt but that they really are the epithelial cells which produce the characteristic granulated aspect of the fundus. In order to recognise this, it is well to examine the upright image, and it is indispensable to be very exactly adjusted to the distance, not only of the fundus in general, but exactly to the anterior surface of the choroid. For the same reason the observation of the cells can help you to control the exactness of your adjustment.

For pathological observations it is also very important to direct our attention to the cells; firstly, because they are themselves the seat of important changes visible by the ophthalmoscope; and also because they furnish us with the best means of recognising the place of other changes—to distingnish, for instance, between different white spots produced by alterations either in the retina or in the choroid.

THE

DISCUSSION ON PURULENT INFECTION

AT THE

PARIS ACADEMY OF MEDICINE.

By Professor VERNEUIL.

(*Continued from page* 494.)

I HAVE no idea of here describing septicæmia, but I shall be obliged to recall a few of its principal characters essential to my argument:

1. The mediate or immediate contact with sepsine.
2. The mixture of this latter with the blood.

Although sepsine produces itself wherever animal matter becomes putrified, it is well to mention the circumstances under which it enters into conflict with our organs. Putrid decomposition comes on inevitably after death of the individual; but it can also invade parts still adherent to the living organism. This is frequently observed in gangrene, at the surface or in the depths of wounds, when the anatomical elements are exposed to a prolonged action of the air; or to altered secretions, when the decomposition invades the normal or pathological humours, blood, urine, pus, etc., yet contained in the natural or accidental cavities. Violent inflammations, whether superficial or profound, when arrived at a degree close to mortification, also generate products very similar to, if not identical with, sepsine. I shall cite, as example, the diffuse phlegmon, osteomyelitis, and osteoperiostitis, which cause such a suite of symptoms that M. Chassaignac has given it the characteristic name of "typhus of the extremities."

Certain parenchymatous inflammations—nephritis and hepatitis among others—bring about a general state quite comparable to septicæmia. The septic focus may, therefore, be fixed to the body or be more or less distant; how, then, does the sepsine mix with the blood? The penetration in the first case can be easily understood, only a feeble barrier intervening between the poison and the absorbents. The veins, and especially the lymphatics, are on one side, the sepsine on the other. The transfer is, unfortunately, very easy. However, we must not forget that this absorption does not take place necessarily; for, as I have already observed, a wound or an inflamed part may conceal a good deal of septic matter without the general state of the patient (*septifère*) being modified.

In order to appreciate the greater or less chances of *auto-infection*, we must take into consideration the general conditions which are opposed to or favour absorption: the smooth or ragged form of the focus, wound, abscess, or cavity; the composition and anatomical state of the surface of this focus; the retention, the stagnation, or the easy flow of the putrid matter; the condition of the peripheral circulation of the blood or the lymphatics, and the circulation in general; the period of the primary lesion, or the health of the subject, etc. All these are conditions which the Surgeon must examine, and which help to explain nearly all individual variations.

It is also well to remember that the production of sepsine varies from one day to another in the same individual. It is almost constantly developed on the surface of recent wounds, or a few days after the opening of a cavity; but it often disappears in a short time, ready to come again in case of a bad dressing, a local irritation, some imprudence in the diet, or on account of the development of some intermittent disease. The changes in the aspect of the exposed surfaces and of their secretions give sufficient warning of these caprices; but we yet wait for chemists to give us a reactive agent, of easy use, by which to recognise and estimate approximatively the putrid poison.

The same variability exists in the absorption—a subject which, quasi-apyretic this morning, may to-morrow, or even this evening, absorb a certain dose of the poison and become feverish. The thermometer gives these daily oscillations better than any other sign. Lastly, we often find the products of normal and pathological secretions mixed with the ordinary products of putrefaction of the general tissues and the nutritive liquids. From the mixture of sepsine with the urine, the bile, the intestinal matters, the synovia, the pus, result chemical combinations, badly known, but which impart particular types and characters to septicæmia. We can, consequently, admit a urinous, a stercoral, a bilious septicæmia, and so on. The most common of these complex forms is the septico-pyohæmia.

Another point to be taken into consideration, aside from the preceding causes which are capable of influencing the progress of septicæmia, is the power which the economy possesses of ridding herself of the poison by the natural outlets. Sepsine escapes with the excretions of the skin, with the pulmonary exhalations, and especially with the intestinal secretions. The ordinary expulsion takes place spontaneously; but it is well to favour this elimination. Unfortunately, it is not rare to see the poison remain and accumulate in the blood; and in that case the danger is great, for this concentration may be counted among the most certain and most irremediable causes of death. (The wounded of last winter, mowed down by septicæmia and pyohæmia, were for the most part constipated.)

This much of the pathogeny of septicæmia originating from the patient himself. Let us now study the case when the septic focus is extrinsic—that is to say, placed away from the patient. At the time of the perilous contact, the future septicæmic individual is well, or, at least, is merely the bearer of a local lesion, without any appreciable reaction. In what way will the sepsine invade that organism? How will this form of septicæmia be developed? It is here where the difficulties commence and the different interpretations prevail, though the fact itself is undeniable.

Sespine is a fixed poison which attaches itself to any solid body—to pieces of dressing, sponges, linen, charpie, instruments, or the Surgeon's clothes—dissolves itself in the fluids of the wound, and which, also, easily spreads through the atmosphere, owing to the dried *débris* or particles of dust which the air is charged with, and in which epidemic or pus cells, filaments of linen, etc., can be easily recognised. A septic miasma, in the latter case, can be admitted without inconvenience—that is to say, a mixture of air and toxic matter, in indefinite proportions. If this definition of miasma

does not suit my colleagues, I shall be pleased to accept a better. I may here remark that the terms of miasma and virus are by no means contradictory, and can be applied to one and the same poison: of this we find a proof in variola.

Sepsine, whatever may be its molecular state, envelopes its victim, and looks for an opening by which to enter. The skin of the mucous membrane of the digestive canal, as long as the epithelium is intact, is proof against admission. The cutaneous surface, among others, only yields to violence, and the poison can only traverse it in case of direct inoculation or the previous existence of a wound. The efficacy of inoculation is sufficiently demonstrated by the innumerable experiments made upon animals, and by the lamentable history of dissecting-wounds. As to recent wounds, their aptness for reception is not doubted, though this varies according to the state of the surface and the period of the accident. A recent wound represents all the conditions of inoculation, and will admit of all the forms of contagion. A chronic wound, covered with healthy granulations, is more refractory, except, consequent upon some accident—and which is infinitely more frequent than we think—it becomes the seat of a new wound, occasioned by an exploration, a movement of the patient, a muscular contraction, or the tearing away of a piece of dressing, etc.

Be this as it may, it is impossible to deny that the contagion is effected by the wound, whether the agent is brought by the dressings, the instruments, the fingers of the Surgeon, or by the surrounding air which has become miasmatic; but it is more difficult to know if this same air, introduced by the respiratory channels, can carry with it into the circulation the sepsine with which it is charged—if, to quote Marshal, "*le principe de mort peut se glisser avec le principe de vie.*"

No doubt but that the inspiration of putrid emanations is dangerous, and may even cause death. The experiments of Magendie, the accounts of fatal accidents observed after certain autopsies or late exhumations, the well-proven effects of overcrowding, have long since rendered all hesitation on this point impossible. I will add that the general state observed in these circumstances presents the greatest similitude of symptoms with septicæmia. If, therefore, by crowding patients not wounded, and even persons in health, a poisoning takes place, how then can we admit that wounded assembled in too large a number escape the well-known influence of adulterated air?

In order to avoid the dangers of induction, I began, in my wards at the Lariboisière, direct researches, to know if persons not wounded could with impunity support the surroundings of patients suffering from traumatic septicæmia. These researches are not yet terminated, but I can affirm that, in certain very evident cases, this proximity provoked a nosocomial fever in individuals who had entered the Hospital for a contusion, an insignificant subcutaneous fracture, and even in those who were merely awaiting a Surgical operation. I speak of these cases with complaisance, for when in the presence of a more or less tardy case of septicæmia, we may well ask if the disease depends upon an auto-infection, an hetero-infection (both having their origin in the wound), or if it depends upon an infection through the respiratory channels, and only due to overcrowding.

(To be continued.)

ORIGINAL COMMUNICATIONS.

CEREBRAL AND GANGLIONIC DISORDERS OF MENTATION.

By METCALFE JOHNSON, M.R.C.S.E., L.S.A.

Part I.

The author of a book called the "Pilgrim and the Shrine"—a comprehensive thinker of our day—has put into words what has passed through the thoughts of many of us when he says, "the constant repetition has utterly destroyed the meaning of words for me." This is so much the case in general language that Dr. Oliver Wendell Holmes speaks of words becoming "polarised." I offer these remarks as an apology for using the word "mentation," which seems to me to convey the whole process resulting from the combined action of all the organs concerned in the generation, conveyance, and reception of thought more correctly than any one or more of the old words in common use among us.

During the last four years I have endeavoured to direct attention to the subject of Mind, from several aspects of importance (theoretical and practical), in a series of papers published in the *Lancet* and the *Medical Times and Gazette*. In the *Lancet*, September 26, 1868, the relation of the sympathetic nerve to the operations of the mind was pointed out; September 18, 1869, the various conditions of perception, as anæsthesia, dysæsthesia, enæsthesia, and hyperæsthesia, were alluded to; and March 19, 1870, the question of responsibility was considered. In the *Medical Times and Gazette*, April, 1871, under the term "Hedonism," individual peculiarity was discussed; and September 30, 1871, the relation of certain mappings of the frontal convolutions to sane and insane mentation was laid before your readers; and it is now proposed to draw attention to these and other cases of a similar nature by entering into further details respecting them, with a view to show not only that there are two distinct phases of aberration from healthy mentation (one due to abnormity in the cerebro-spina, the other traceable to disordered function of the ganglionic system of the great sympathetic nerve), but to enforce more earnestly the consideration that the process, which is here called by the collective term "mentation," is not solely the result of the physiological action of the brain alone, nor even with the assistance of the continuous network of spinal nerves of which the cerebrum is the collecting centre, nor yet with the addition of the great sympathetic, with its ganglia (resembling the receiving offices of a great postal or telegraphic system), but every bone, muscle, tendon, ligament, fascia, fibre, or cell of the whole body is required in its entirety to make up what Professor Owen, in his pregnant words, calls the spiritual "sum of the force centres termed body."

In the following cases we have examples of various conditions of brain—brain in which parts are deficient from arrest of development; brain in which disease is superadded to deficient substance; brain in which infantile disease has impaired the efficiency of otherwise powerful substance; brain in which function has been impaired by deranged ganglionic nerve; and healthy brain doing good and sane service as the principal centre whence is evolved the function of mentation.

In the following table of head-measurements the centre is taken at the tragus of the external ear on either side, the temporal over the eyebrows, frontal over the forehead, parietal over the crown of the head, occipital over the occiput (midway between coronal suture and occipital protuberance), cervical below the protuberance, and oblique from the tragus to the middle of the eyebrows round the occiput.

Head-Measurements.

No.	Ant. post.	Temp.	Front.	Pariet.	Occip.	Cervic.	Circular.	Oblique.
1. A. B.	10·75	10·00	10·00	10·75	10·25	8·00	18·75	...
2. B. B.	9·25	10·75	10·75	11·25	10·50	8·50	18·00	14·00
3. A. C.	11·00	9·50	11·25	13·50	12·50	8·50	19·25	15·25
4. A. D.	12·00	10·25	11·75	13·00	13·00	8·00	20·00	16·00
5. B. E.	12·25	10·25	12·00	13·25	12·50	8·00	20·50	16·00
6. A. F.	13·00	10·75	12·25	13·50	14·25	8·75	21·50	17·50
7. C. G.	13·00	11·00	12·00	14·75	13·75	8·50	21·00	17·50
8. A. H.	13·50	12·00	13·00	14·50	12·00	8·75	21·50	18·00
9. J. K.	14·00	12·00	13·75	14·75	15·00	9·00	22·00	18·25
10. C. L.	13·50	11·50	...	14·50	...	11·50	23·75	19·00
11. A. O.	14·00	12·25	13·75	14·75	14·75	10·50	23·75	18·50
12. B. J.	13·00	12·25	13·25	15·00	15·75	10·00	23·50	18·25
13. — —	14·00	12·00	13·75	14·75	14·00	9·50	22·25	17·75
14. — —	12·00	12·75	14·25	15·25	15·25	9·75	23·25	18·25
15. H. M.	13·00	11·75	13·00	14·00	14·25	9·00	22·00	17·00
16. E. N.	13·00	...	..	13·75	...	...	21·75	...
Average ...	14·00	12·25	13·65	14·85	14·33	9·80	22·43	17·93

A. B., No. 1, is a macrocephalous female, aged 40 years, of very weak intellect. The only history of parents is that the mother had macrocephalous offspring as well. The cause of her macrocephaly unknown, as well as of B. B., No. 2, her brother. These two are very striking instances of small heads with more intelligence than the size of the head would lead to expect.

A. B. was able to tell pence from shillings, and before she came to the workhouse would buy and pay for her own food. She was of a kind and gentle disposition, could understand much that was said to her, and expressed her wants in very fair words. She slavered slightly, and stooped in her gait, which was very ungainly. Her health (except asthma) was good; catamenia regular; showed no signs of genital desire. Was very fond of ribbons, and of a doll. Appetite very large; would eat till she vomited. Would eat uncooked food or dough. She died of carbuncle. A post-mortem examination of her head revealed the following particulars:—

On removing the scalp, the distance between the origin of the two temporal muscles measured three inches. Beneath the calvarium, dura mater not adherent; the falx a quarter of an inch deep; fibrous texture very visible. Arachnoid perfectly transparent in all parts; vessels large, and full of blood.

Weight:	Cerebrum . . .	14 oz. 6 drachms.
	Cerebellum . . .	4 oz. 6 „
	Total	19 oz. 4 drachms.

Shape of brain oval, corresponding with the skull, which was not thick, but firmly ossified.

The posterior lobes just covered the cerebellum. The anterior lobes much less developed than usual. The sulci all over very shallow, in some parts being mere indentations, the most developed varying from half an inch to three-quarters of an inch in depth. The frontal fissures on the left side were both absent, while the superior frontal on the right side was so slightly developed that the gyri which they isolate were little more than rudimentary. The fissure of Sylvius very shallow, straight, and terminating in the middle outer side of middle lobe. Fissure of Rolando not very well marked. The callosomarginal of right side terminates in a cul-de-sac at the middle of corpus callosum; on left side runs parallel to the end. The horizontal depth from surface of brain to anterior commissure of corpus callosum, one inch and a quarter; perpendicular, three-quarters of an inch; to posterior commissure, perpendicular, one inch and a quarter. Olfactory bulbs and nerves very large, especially the external root. Substantia perforata and locus niger very distinct. Centrum ovale minus showed the sulci very shallow. Grey matter very distinct, dark, one-eighth of an inch to three-sixteenths of an inch thick; equally thick in anterior and posterior lobes. Corpus striatum very distinct and large compared with the whole brain.(a) Choroid plexus light in colour. Fluid in ventricles healthy, and normal in quantity. Grey matter of corpus striatum easily separable from the white fibres surrounding it; on the outer side separates almost like a nut. Pons Varolii small, and rather soft. General substance of brain very firm. Here we have an apparently healthy brain, whose development has probably been arrested between the sixth and seventh months of intra-uterine life.

No. 2 is the head-measurement of B. B., brother to A. B., aged 45, still living; earns three or four shillings a week at a coal-yard. His intelligence is very limited—does not know how many pence in a shilling. I gave him 2d., and asked him, "What will you do with it?" He replied, "I can get hāfe an ounce o' 'bacca wi' it, and git a hō'penny out." His actions and gait are ungainly; he does not slaver much; plays marbles with boys; is very good-tempered; has a large appetite; but takes no notice of women. On the whole, his intelligence is superior to that of A. B.

No. 3 is the measurement of A. C., aged 16, an idiot of lower mental power, who laughs at everything said to him. He knows money when it is given to him, but answers no questions. All his measurements, except the temporal, are larger than the two B.'s.

No. 4.—A. D., aged 50; weak intellect; always was strange in manner; children shout at her in the street. She is, however, sharp enough to do some work as a servant.

March 20, 1870.—I was called to her and found her taciturn, eyes shut, skin cool, conjunctivæ clear, pulse quiet slow, 65; attempted suicide with a hair-pin by making a hole in her throat.

22nd.—Still silent; pulse 70; tongue blistered; after two turpentine enemata, bowels open; no scybalæ; takes no food.

27th.—Silent; eyes quiet closed.

29th.—Pulse 74; temperature 98·40°.

April 7.—Pulse 96; takes more notice; tongue clean; bowels open; temperature 96·60°; has eaten some food.

13th.—Sits up in bed, and eats more.

28th.—Sits up out of bed; speaks reluctantly; eats more.

After this she recovered, and returned to her place.

No. 5.—B. E., female, aged 42, factory operative, insane; has been depressed in spirits six months; delusions about stealing; sleeps badly; hears noises; speaks slowly, and stammers; tongue white; skin cold; pulse 72; eyes restless. Sent to asylum.

No. 6.—A. F., female, aged 40, servant, insane.

October 13, 1869.—Skin cool; pulse 74; tongue clean; continually moaning "Lord have mercy on me; let me stop here, I don't want to go;" delusions about something inside her which eats her food. Was in workhouse two months, always the same, moaning and talking almost incessantly night and day. No account of any catamenia.

Here was an instance apparently of cerebral insanity in a slightly macrocephalous female, possibly superinduced by ganglionic derangement through the genital organs (ovaries).

One point worthy of notice in the history of the case is, that November 16 and 19, when she was less depressed, the pulse rose to 84 and 85.

No. 7, C. G., female, aged 45, factory operative; feeble mind, very tidy, and virtuous. The parietal measurement is better than the others.

No. 8, A. H., aged 36, an "army lawyer." A very interesting case, having, whilst in the workhouse, resisted all law. He died of asthma. Post-mortem examination of his head revealed—frontal sinuses very large, so as to render fallacious the measurement called temporal, which is large; his parietal was good, but occipital very small; calvarium separated easily; veins of dura mater large and full of black blood; arachnoid full of vessels, very thick and opaque over middle third, very opaque over right anterior third, more like a fold of dura mater than arachnoid; pia mater very dark, and not easily detached from the convolutions. The whole brain very soft; bloody points numerous. Ventricles healthy; fluid natural; outer wall of right lateral ventricle very much softened. Grey matter very distinct, three-sixteenths of an inch thick over the general surface, but posteriorly much paler and less distinct. Middle lobes both very soft; olivary body perfect, and spinal columns well defined; cerebellum healthy; optic nerves distinct and full-sized (he had opacity of both corneæ and lippitudo for some years); olfactory bulb small and very soft. Here was a man whose development of cerebro-spina was not only at fault, but had been at the same time the subject of disease, while the ganglionic instincts were abnormal, or had become so, as evidenced by craving for drink when at liberty. His intelligence was small, not being able, even by the assistance of pen and paper, to discover how many pence were in a sovereign.

No. 9, J. K., aged 68, is an example of a man of considerable ability—very taciturn; a great drunkard in early life; what you might call a good common-sense reasoner. His occipital measurement, compared with No 8, is very large; it is larger than the average. He was sensible to within a few hours before his death.

Post-mortem examination showed results as follows:—

Weight:	Cerebrum	48 oz. 4 drachms.
	Cerebellum and pons Varolii	7 oz.
	Total	55 oz. 4 drachms.

The whole brain very soft; meninges healthy; no opacity; vessels of pia mater large and full; olfactory bulbs large; optic nerve large; pineal gland gritty; infundibulum strong; grey matter distinct, equal throughout, one-eighth of an inch thick; sulci deep—perpendicular depth from surface of convolutions to anterior commissure of corpus callosum one inch and a half, to posterior commissure two inches and a quarter—(compare this with A. B.); fissures of Sylvius and Rolando natural; superior frontal fissure of right side longer and extending more into the front than that of the left; bloody points few; no fluid in the ventricles.

The following case (No. 10, C. L., aged 56) presents many points of interest as a brain deficient from early life in some parts of its fibrous structure. Two of the measurements are omitted, but the circular, the cervical, and oblique are above the average:—

He was born of a clever industrious father, and a mother of rather weak intellect. Had several brothers—all clever—one a very prosperous man with a large head, who died of apoplexy. No history of fits or brain disease to be heard of. C. L. was a stupid boy at school, a very difficult child to manage; was severely chastised as a lad, but to no purpose. He was always strange, and in after years was treated as a "half-wit." As a man, very cunning. Like his brothers, he had woolly-curly hair and a rather negrine cast of face.

Post-mortem examination of his brain revealed—skin of scalp very thin; bones of calvarium very thick and soft; weight of cerebrum and cerebellum fifty-four ounces; arachnoid opaque over middle lobes. At the insertion of the veins on the left side the membrane was firm and very tough. A slight opacity and adhesion of the left middle lobe in the cavity of the sphenoid bone. The lobes of the two hemispheres adherent by the arachnoid in front. The fissure of Sylvius—left passes far into the posterior lobe; the right terminates in the middle

(a) It is worthy of remark that the angle formed between the brow, the ragus, and the horizontal line proceeding from the tragus is very constant, and corresponds with the base of the skull and its contents, the corpus striatus, and thalamus opticus.

lobe. The superior frontal fissure—right passes lower to the front than the left. The fissures of Rolando equal on either side. The intra-parietal and parallel fissures well marked; the parieto-occipital less so. Right lateral ventricle natural in size; fluid rather in excess of natural quantity; grey matter of convolutions distinct, but thin; corpus striatum healthy; striæ very distinct. Left lateral ventricle very much enlarged, measuring when opened six inches antero-posterior diameter, and five inches lateral, giving twenty-two square inches of surface in the interior of the ventricle. Substance of brain around very firm; grey matter equally distinct with that of right side. Thalamus opticus rough, but grey matter very distinct. The calloso-marginal fissure of the right side was very straight, extending from one end of the hemisphere to the other. That on the left very tortuous, commencing at the upper surface of posterior third, and terminating in front of the anterior commissure of corpus callosum.

Nos. 11 and 12 are the measurements of two persons of very feeble intelligence, whose size and shape of head resembled those of the very intelligent. In both cases the gait is very awkward, but the appearance of the face alone is in both cases remarkably pleasing. The manner and speech are, of course, indicative of low intelligence. Possibly (as, I think, was the case with C. L., No. 10) they may have only *narrowly escaped* being very clever men. The relatives of No. 12 are (in one instance especially) very clever as a family.

Nos. 13 and 14 are two remarkably clever men, but diametrically opposed in the nature and development of their talents.

No. 15, H. M., aged 47, is the measurement of a man whose hedonism is certainly disordered, but whether the result of cerebral or ganglionic derangement it is difficult to diagnose. I have been told that, some years ago, he was found walking in the streets of the town perfectly naked. He was afterwards sent to an asylum, and there the diagnosis was found puzzling. He is very taciturn at times, and generally seemed desponding. He will not work, but sits idling all day in his ward.

No. 16, E. N., aged 21, whose head-measurements are not complete, was a case of pure hysterical insanity, brought on by menorrhagia. Her excitement was severe, but of a very cheerful character.

Cases of this kind are of such frequent occurrence that a reference to them is all that is necessary. In such and such-like we should look in vain for cerebral lesion, and the pathology of the ganglionic nerve is not yet sufficiently advanced to admit of demonstration in the nerve itself; but the following case, though not one of insanity of mentation purely, will serve, together with some very interesting cases reported by Dr. Wilks, in a paper on the "Functional Diseases of the Nervous System," in Guy's Hospital Reports, to demonstrate the bearing of this subject on the general question of ganglionism:—

No. 17, O. P., aged 25, a servant, well developed, with convergent strabismus. Mother is an intelligent but rather eccentric woman; father clever, but intemperate.

Mother says she was always well till puberty, at 17; a very great "romp"; after 20, catamenia very irregular. She never cared for the society of men. Twelve months since had severe vomiting, with hysterical symptoms.

January 1, 1869.—Has been ill a month; emaciated, especially in face; pain in pit of stomach; vomits blood (coffee-grounds); she is asthmatic. Mother says she has taken no food for five weeks. Voice completely gone. Pulse 72; tongue clean.

3rd.—Passed three large scybalæ.

8th.—Pulse 72; skin cool; tongue clean; vomit black; milk by enema returns black in five hours; hypodermic morphia does not produce sleep.

9th.—Pulse 72.

10th.—Tongue clean; skin cool. Parted with a lump of blood per anum. Eats onions, vomits them, and passes them per anum.

12th.—A fæcal evacuation; skin cool; pulse 72; tongue dry; vomiting much slime and blood.

23rd.—Pulse 72; tongue clean; skin cool; bowels act of their own accord; vomits, as before, onions; voice still mute, but occasionally returns slightly.

February 19.—After having some ease by morphia taken by mouth, she gradually became weaker, and died yesterday.

To-day I made a post-mortem examination of the abdomen:—Stomach perfectly healthy: empty. Bowels healthy; empty so far as sigmoid flexure of the colon; at the commencement of the colon there were minute granular masses of fæcal matter, increasing in size all along the bowel to the rectum, which was full of large masses of hardened fæces. Uterus and ovaries healthy, except a small cyst at the end of left Fallopian tube. Spleen healthy; bladder empty; kidneys healthy. The rest of the body was not examined, but, from the symptoms, I am inclined to believe that death resulted from injury to the sympathetic nerve—whether caused by the pressure of the scybalæ, or the scybalæ caused by the disordered nerve, I cannot tell; but in the course of her history I had often occasion to notice that she was decidedly eccentric in her manner, at times almost amounting to insanity. She was very intelligent, and very truthful, and her case was one of great interest.

(To be continued.)

WELL-MARKED APHASIA WITHOUT PARALYSIS—RECOVERY.

By WILLIAM VAWDREY LUSH, M.D. Lond.

On May 4, 1871, I was called to Mrs. S., a lady past 60 years of age, whom I had attended on several occasions, generally for attacks of acute or subacute rheumatism, without cardiac complications. The account given me was, that she had been confined to her bed for four days with rheumatism, principally affecting the right foot and occiput; that she had got better and been up for two days; that she went to bed fairly well. About 11.30 p.m. her daughter noticed her mother sitting up in bed, with flushed face, falling from side to side, and not able to speak as usual. There was no loss of consciousness. Her daughter gave her some brandy-and-water. She became "herself," and went to sleep again. About 5.20 a.m. her daughter woke up, and found her mother again sitting up in bed, and apparently recovering from another attack; her speech affected, but not so much as in the first attack. Some brandy-and-water was again administered, and the patient appeared relieved. Subsequently she ate a mutton-chop for breakfast.

On my arrival I found the patient downstairs, reclining on a couch or sofa. Her face was pale. No loss of consciousness, but a want of her usual readiness of speech, she now and then forgetting a word, or hesitating in the word she wished to say. Pulse somewhat feeble, 70 to 80. Heart sounds—no murmur; now and then dicrotous. ℞. Potassæ bicarb. ʒiij., sp. ammoniæ aromat. ʒiss., tinct. cardamomi comp. ʒij., aq. distill. ad. ʒvi.—ʒss. c. aquæ ʒss. statim et secundis horis. On the occurrence of an attack, an ether and ammonia draught to be given. Beef-tea, milk, brandy-and-water. 7—8 p.m.: In bed. In much the same state. Pulse 80.

May 5.—Passed a quiet night. Remains in bed. To-day (12—1, noon) appears decidedly more aphasic. Could not tell me the names of a watch, a ring, or a bottle when the articles were shown her. Pulse 66, with tendency to intermission. No cardiac murmur. Rept. mistura c. potassæ bicarb. ʒij., et liquor cinchonæ ʒj.

6th.—Has passed a quiet night. Still very aphasic. Could not tell me the name of a watch when shown it. Was much distressed at not being able to do so. Tried to relate some circumstance, but could not convey her meaning. Tried to write it. Wrote with a pencil "Regenlbys theren," and relinquished the effort. (It was subsequently ascertained that she wished to state that she had at her second attack been frightened by the running down of an alarum clock.) Countenance pale. No inequality of pupils. Pulse 72; hands cool; tongue clean. I could detect no paralysis. I could not get the patient to inflate her cheeks; but her daughter states that she can eat and drink, neither food nor drink escaping from the mouth. Has eaten a kidney for breakfast. Starts at sounds. Continue mixture. Tranquillity enjoined. Cotton-wool to be placed in ears.

7th.—Patient was restless in the night. Pulse 72. Daughter has had her first mixture repeated. To take it every three hours.

8th.—Has passed a good night. Face flushed from stimulus. Pulse 72. ℞. Mist. quartâ quâque horâ.

9th.—Patient more restless in the night. Was found awake by her daughter, who has slept with her throughout, and deemed by her to be suffering from indigestion from the medicine. Pulse 68, with tendency to intermission. Takes her food well. Told me the name "ring," but failed to tell me the names of watch or bottle. ℞. Liquor cinchonæ (Battley's) ʒij., pot. bicarb. ʒiij., sp. ammoniæ aromat. ʒiij., tinct. cardamomi comp. ʒij., aq. camphoræ ad. ʒvj. Misce. Sumat ʒss. c. aquæ ʒss., quartâ quâque horâ.

10th.—Has passed a good night. Pulse 72. Enjoys her food.

17th.—During my absence has been attended by Dr. Griffin, who continued my treatment. Converses much better. Told

me the names of "watch," "ring," and "phial" on being shown the articles. Pulse 72. Allowed to get up. To take an aperient pill (ext colchici acetici, etc.) to-night.

June 5th.—Patient has had some rheumatic pains. Bears riding in a bath-chair well. Has written a letter.

7th.—Pulse intermittent at times. I suggested good sherry (three glasses per diem) instead of brandy.

On the 12th, 13th, and 14th patient had slight bleeding from nose. On the 14th I received a note from the patient quite correctly expressed and spelt. Subsequently she left Weymouth for Derby.

On August 10 I received from my patient a well-expressed letter occupying two sheets and a half of paper. She had received no Medical treatment. Her principal complaint was of weakness and a severe cold in the head, accompanied with dryness of the throat, etc., on account of which she had discontinued her sherry. Previously to the aphasic attack she had had much mental strain.

Weymouth.

ANALYSIS OF ONE HUNDRED AND EIGHTY-TWO CASES

TREATED IN THE LOCK WARDS OF THE ROYAL PORTSMOUTH, PORTSEA, AND GOSPORT HOSPITAL.

By JOHN WARD COUSINS, M.D. Lond., F.R.C.S.,
Surgeon to the Royal Portsmouth Hospital.

(*Concluded from page* 470.)

MANY of the patients referred to in the table (page 469) had been previously under treatment, labouring under chronic vaginal discharge, and some of them have been inmates of the Lock Hospital over and over again. After a few weeks' rest and cleanliness, in a large majority of cases, the external organs and vaginal secretion appear to the eye healthy, but soon neglect and dissipation bring back all the old symptoms. It is true that the vaginal mucous membrane is in some cases red, patchy, and granular, and that in others the morbid action clearly extends to the uterine cavity; still, in very many, little local change can be detected beyond a pale and relaxed condition of the mucous surface, accompanied with excessive discharge. Now, the daily mode of existence of this class of women must render them prone to unhealthy secretion; and this, I believe, is dangerously modified by the chronic and often latent cachexia which many of them possess, and that it is sometimes the inoculating fluid by which syphilis is communicated to the male.

I now wish to draw attention to a very important practical question, which has probably very often occurred to many of my Professional brethren who have been engaged like myself in this department of practice. The Contagious Diseases Act provides, by the 31st clause, that prostitutes who are labouring under chronic disease, and who have been detained some months under treatment, can be discharged by the Medical officer with a certificate stating that "they are still affected with a contagious disease"; but if they are found in any place for the purpose of prostitution, before they have received another certificate showing that they have been entirely cured, they are liable to imprisonment. Now, I affirm that there is often great difficulty in declaring when the period of danger is safely passed over, and when women who have laboured under a constitutional taint may safely be permitted to return to their loathsome and unnatural vocation.

Syphilis in a large number of cases is undoubtedly a curable disease; but is it not a long time in running its course? and does it not often crop up in some new form, even after a long period of latency? When does the dangerous power of communicating the disease cease in the female? At what period in her history is a prostitute clean who has been infected with syphilis? Some would say, "When the external organs are free from disease; for constitutional syphilis is not communicable." Well, if this is a correct opinion the matter is easily settled. My experience, however, leads me to a very different conclusion, and I believe that in many cases of this class it is impossible to draw the line, with safety, where cleanness begins and uncleanness terminates. Prostitutes are not only dangerous because they labour under local disease and constitutional diseases in progress, but also because they have recently laboured under a syphilitic taint. Even when scars and stains have died out, the system often eliminates the specific poison in the secretions, and the vaginal surface, especially from frequent and unnatural irritation, pours out unhealthy mucus, which may be the vehicle of communicating the disease. All must admit that the pathology of syphilis is still in many respects surrounded with mystery. We know not the nature of the poison we are contending against, and the laws which regulate its peculiar manifestations are still but partially defined.

It is not really more remarkable that the vaginal membrane should be capable of excreting a specific mucus in some cases, long after the disease has apparently run its course, than that the seminal fluid of the male should impart a mysterious taint to the ovum, or that the saliva of a syphilitic child should infect a healthy nurse.

I believe that the effectual working of the Contagious Diseases Act depends greatly upon the application of the clause to which reference has been made.

The pathology of syphilis points out the necessity of a very stringent application of it, and, if it were possible, all prostitutes ought to be considered dangerous and still affected with a contagious disease for a certain period after they have laboured under genuine syphilis. It is only a severe application of the law, in my opinion, that can effectually control the disease in any locality. Its ravages may be mitigated by milder means, but its progress will never be successfully subdued.

It is true that the theory, as to its propagation by the vaginal secretion of prostitutes labouring under syphilitic cachexia, is by no means actually proved. This question could only be settled by experimental inoculation. Still, if the object of this Act of Parliament is to stamp out the malady, we ought (scientifically speaking) to take every means to avert the dreadful scourge, and act, for the sake of safety, as if all disputed questions were really settled. Small-pox can only be controlled by isolating as far as possible persons affected with the disease, and by protecting the healthy from those capable of infecting them. It is just so with syphilis. The disease is mainly disseminated by prostitutes; and the only way to prevent its spread throughout any community is by a stringent inspection of this unfortunate class of society. The clean must be separated from the unclean, and none labouring under any kind of constitutional or local affection must be permitted to follow their degrading occupation.

But here arise a multitude of moral and social questions, and these—rightly, I think—will ever prevent the practical operation of such stringent regulations. Without them the disease may be partially checked, but it can never be effectually subdued.

One word as regards the treatment of the cases referred to in my table. In the large majority of patients who laboured under local disease, rest and cleanliness were the only necessary remedies. When the uterine cavity was involved, astringent applications were injected, and sometimes strong iodine tincture applied freely to the cervix appeared to be very serviceable. Syphilis in its early stages was not treated with mercury, but in obstinate cases mercurial frictions and vapour-baths were often employed with great benefit. Several chronic cases of a severe form were much benefited, after combinations of quinine and iron and cod-liver oil had failed, with large doses of compound decoction of sarsaparilla. Two cases of relapsing iritis seemed to be much relieved by this simple treatment.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

ST. GEORGE'S HOSPITAL.

THE carbolic acid treatment is being freely employed in this Hospital. We lately had the opportunity of seeing Mr. Rouse perform Symes's operation on strictly antiseptic principles. The patient was a young woman, who had for some time been in the Hospital under the care of Mr. Hewitt. The operation had been deferred on account of the low condition of her general health, with the hope that by generous diet and tonic medicines she would improve; but as this was not the case, and as suppuration took place into the joint, her health became worse and worse, and suppurative fever set in. Mr. Rouse would no longer leave her, and therefore decided upon removing the foot at the ankle. The limb having been previously rubbed with carbolic oil, and all the instruments steeped in carbolic water, the operation was done in the ordinary way, with this

exception, that as the foot was somewhat distorted, the dissection had to be made further back than usual to get clear of the os calcis. The foot being removed, the malleoli were taken off by means of Pollock's claw-forceps, a much more expedite method than the saw. Carholised water was then poured over the flaps, carbolised sutures used, and the whole covered by gauze and lac-plaster.

Mr. Rouse showed to us a patient in whom he had performed Chopart's operation, two weeks previously, for disease of the carpal joints. He used the same antiseptic means as in the other case, and kept in the bed bags of McDougall's carbolic powder. This case had done remarkably well; the wound had nearly all healed by first intention, and as the girl was very ill at the time the operation was performed, and much suppuration and a tedious recovery expected, Mr. Rouse attributes the good result to the influence of the antiseptic dressings.

Vesico-Vaginal Fistula, by Mr. Rouse.

This was an opening about the size of a shilling, very high up in the vaginal wall, which was caused by sloughing following a protracted labour. From its position it was very difficult to reach, but by the aid of a duck-bill speculum the edges were vivified, and three wire sutures were passed from side to side, and then secured by twisting. Mr. Rouse alluded to the want of success which often attends such operations when the fistula is so situated, and said that if unsuccessful in this particular case he should suggest to the patient the advisability of paring the surfaces of the vagina, and sewing them together. Some years ago Mr. Pollock did this with a good result; and, as the patient was a single woman, there was less objection to the practice than otherwise would be the case.

The notes of the following cases, which were under the care of Mr. Rouse, have been obtained through the courtesy of Mr. G. E. Walker, the House-Surgeon. Cases 2 and 3 are alluded to above.

Case 1.—J. A., aged 34, a clerk, in stepping down from an omnibus, fell forwards and struck the right knee, probably on a sharp stone on the road. He was unable to rise, and was at once brought to St. George's Hospital, a distance of about a quarter of a mile. On admission, was slightly stupid, and apparently under the influence of liquor. There was a contused wound, which would admit the finger, on the outer side of the right patella, which was comminuted. The upper fragment (about one-third of the bone) was drawn upwards about a quarter of an inch. The lower two-thirds was broken into several irregular fragments, one of which was tilted edgewise. The joint was evidently opened. He said he was accustomed to drink whisky, but not in large quantities, and enjoyed good health. His aspect corresponded with this account. Pulse 78; temperature 100·2°; respiration 19.

The wound was sponged freely with carbolic acid lotion (one in twenty), but not injected. It was then covered with Lister's antiseptic gauze, and outside that, lac-plaster. The limb was placed in a M'Intyre's splint, on an inclined plane, and ice-bags kept on joint. Diet: Beef-tea Oij., milk Oij.

September 10.—Tinct. opii ɱx., ft. potas. citratis 6tis horis.

11th.—Joint very little swollen or painful. Inj. morph. gr. ¼ omni nocte. 10 a.m.: Temperature 99·2°; pulse 76; respiration 18. 10 p.m.: Temperature 101·6°; pulse 88; respiration 18.

12th.—Joint very little swollen. Tongue white. 10 a.m.: Temperature 100°; pulse 80; respiration 20. 10 p.m.: Temperature 101·2°; pulse 80; respiration 20. Hyd. subchlor. gr. v. st., haust. sennæ post horis quatuor

13th.—Dressing changed; moderate suppuration, principally around the joint. Joint not tense; discharge rather foul. Tongue white. 10 a.m.: Temperature 102·2°; pulse 104; respiration 21. 10 p.m.: Temperature 99·2°; pulse 100; respiration 20. Perstat. c. inj.

14th.—Not much pain or swelling about joint. Temperature 100·2°; pulse 98; respiration 20. Perstat. c. inj.

15th.—10 a.m.: Temperature 102·6°; pulse 96; respiration 20. In the evening he became restless and talkative. 10 p.m.: Temperature 102·2°.

16th.—Passed a sleepless night; is very restless and talkative. Talks nonsense; fancies he sees non-existing people and things. Tongue white, tremulous and moist. 10 a.m.: Pulse 110; temperature 103·4°. A free incision was made into the joint, at the outer side; some sanious fluid evacuated. Joint injected with carbolic lotion, and dressed with lac-plaster. P. c. inj. 4tis horis; omit mist.; whisky ʒvj. 10 p.m.: Temperature 101·8°.

17th.—Slept an hour last night. Still in same state of delirium. A blush of erysipelas on outer side of thigh. Tongue moist. Temperature 101·2°; pulse 110. Whisky ʒviij. Was placed in a separate room; allowed to smoke.

18th.—Erysipelas fading. He is inclined to shiver. Slept a little at intervals. Small amount of discharge from knee-joint. Pain in the left shoulder. Temperature 103°; pulse 140, small. Sherry ʒxij.; tinct. opii ɱxxv. 6tis horis.

19th.—Tongue creamy. Remains in same state of delirium. Is getting weaker. Temperature 102·8°; pulse 148. Rep. vin.

20th.—Remains in same state, but pulse weaker. Left shoulder slightly swollen. Died in the evening, without change of symptoms.

On making a post-mortem examination, all the organs were found congested, but otherwise healthy. The left shoulder contained a large collection of pus, and the knee-joint was disorganised.

Case 2.—Mary Ann T., aged 18, admitted April 19, 1871. On admission there was disease of the tarsal joints—with a good deal of thickening of the structures of the left foot, which was painful and tender to the touch. Was quite unable to walk on it. The ankle-joint seemed unaffected. She was also suffering from an abscess in the axilla. Ordered steel wine (ʒij.) twice a day.

June 10.—The abscess in the axilla has nearly healed, but the foot is more swollen and painful. Her general health has by no means improved, and her appetite fails her. Is taking six ounces of port daily. Lin. belladonnæ applied to the foot.

20th.—Foot more painful, and there is fluctuation on the dorsum. Has a good deal of constitutional disturbance.

July 8.—The abscess in the foot, which is less painful, has burst, and there is a great deal of purulent discharge. No improvement in her general health.

August 1.—The foot is a good deal inflamed, and the sinus continues to discharge freely. The pain is continuous, and her health much worse.

24th.—As her health seems to be quite failing her, Mr. Rouse determined to remove the foot. This he did to-day, under chloroform, by Chopart's operation. The vessels were secured with pure silk, the ligatures being cut off short and left in the wounds. The sutures were of the same material. The wound was syringed out with carbolic lotion, and dressed with Lister's gauze, and outside this with lac-plaster.

25th.—Temperature 100·4°; pulse 140. Seems no worse after the operation. Complains of pain in the foot, but not more severe than before the operation.

27th.—The foot was dressed to-day for the first time since the operation. The wound was looking very quiet, and there was scarcely any discharge. Dressed in the same manner as before. Is more cheerful, and her health greatly improved. Very little pain in the stump. Temperature 97·8°; pulse 102.

29th.—Wound dressed again to-day. No signs of any inflammation. Very little discharge. Temperature 99·1°; pulse 101.

31st.—Complains of pain in outer angle of wound, which is slightly swollen and inflamed. Three of the sutures were removed, and a director passed in, but no matter was found. Rest of the wound looking healthy, and in great part united. Temperature 99·3°; pulse 110.

September 2.—Inflammation subsiding, and scarcely any pain. The rest of the sutures were removed, and the gauze only applied.

6th.—Wound nearly united; no discharge; painful only on pressure. Is looking much better; appetite improved.

13th.—Wound quite united, except at outer angle. Brown dressing (calamine cerate) only applied. Allowed to dress and lie outside her bed.

20th.—Quite well. Walks about with a crutch.

27th.—Sent to Wimbledon Convalescent Hospital.

Case 3.—J. K., aged 24, admitted December 14, 1870, has had pain and stiffness about left ankle for three years. Two years ago she was under treatment in this Hospital, and was able to walk for a time; but during the last year numerous sinuses have formed, and it has become steadily worse. No injury. Has cough and weak health. Since her admission each successive month has seen no improvement in the state of the foot, and her health has become decidedly worse. Her treatment has consisted principally in iron and quinine, cod-liver oil, and a free supply of stimulants. Poultices to the foot.

September 6.—The foot has become much more painful, and the swelling has increased. There is also more discharge. As her general health seems to be failing her, it has been decided to remove the foot.

14th.—Under ether Mr. Rouse amputated at ankle by Syme's method, except that only the malleoli were removed, and articular surface of tibia left. The vessels were tied with pure

silk, cut off short and left in the wound. The sutures were of the same material. Dressed with Lister's gauze, and outside with lac-plaster. Wound syringed with carbolic lotion (one in twenty).

15th.—Complains of a good deal of pain in the stump. Shock from the operation less than might have been expected. Pulse 96.

17th.—Dressings changed to-day for the first time. Stump looking quiet, but very painful. There is very little discharge. General health much the same. Tongue clean. Pulse 92.

18th.—Stump very painful; dressings consequently changed. There is a good deal of puffiness, and the wound is looking somewhat inflamed. A good deal of semi-purulent discharge. To be dressed daily.

20th.—Stump looking much the same; and as the wound was very tense, three of the sutures were removed. Complains of a great deal of pain, especially at inner angle of wound. Ordered haust. acid. phosph. c. strych. ter die s.

22nd.—Is much better in her general health. Tongue rather white. The stump is looking much quieter; but at about an inch above the inner angle of the wound a small abscess has formed and burst. There has been a great deal of discharge. The rest of the sutures removed.

24th.—Discharge still copious; the wound gapes a good deal; edges brought together with white strapping. Gauze left off, and lac-plaster only used. Bowels constipated. Tongue foul. Ordered pil. col. c. hyos. gr. x. statim.

26th.—Is much better; stump looking quieter; inflammation subsiding; discharge less; complains of very little pain. Bowels have acted freely. Tongue clean.

29th.—The inflammation has quite subsided; outer half of wound beginning to unite; ceased to discharge. Says she feels better than she has done for months past. Allowed to lie outside her bed. Her appetite has greatly improved.

October 2.—Outer half of wound has quite healed; the inner half looks healthy and is healing rapidly. Complains of no pain.

6th.—Stump nearly healed. Will be sent to the Convalescent Hospital on Wednesday next.

ST. GEORGE'S (HANOVER-SQUARE) DISPENSARY.

CASE OF MORBUS CÆRULEUS.

(Under the care of Dr. SUTHERLAND.)

E. N., a girl, aged 13, an unusually intelligent and clever child, whose extreme blueness of skin at once suggested the idea of some cardiac derangement, was first seen on August 5, 1871. The history of the case was peculiar, as the patient herself had never suffered from rheumatism, although her father was a martyr to this disease some years previous to her birth; but it could not be ascertained whether his heart was affected or not. She had two brothers and three sisters, all younger than herself, but healthy up to the present time in every way. Nothing unusual was noticed in the child till she was about 7 years old, when she began to suffer from intensely acute pain in the left side whenever she ran any distance, walked fast, or went upstairs. About two years ago the blueness of the skin first began to make its appearance, and this discoloration was at times increased paroxysmally, when she used to turn almost black at the lips and extremities. She was not weaker during these attacks than at other times, as she was able to walk out when they came on, but was obliged to wear a thick veil to avoid exciting the attention of the passers-by, as the blueness was so intense on these occasions. During the last fortnight she has several times vomited black semi-coagulated blood.

On August 5, the day she was first under observation, she became so feeble that she was unable to sit up, and was put to bed. She was then seen to be very emaciated; tall for her age; had dark-brown hair, greenish eyes—pupils equal and active. The tips of the fingers and toes were bulbous, and the nails much incurvated. The discoloration was unevenly distributed over the body, the forehead being tolerably white, the nose and chin of a slightly purple tinge, and the lips bluish-black, as if from eating black-currant jelly. This blackness extended irregularly beyond the mucous membrane of the lips. The tongue was very dark in colour, its papillæ prominent, somewhat resembling the tongue of scarlatina. The superficial veins of the hands, and the jugular veins were much distended, and the carotids were seen throbbing beneath the skin. Pulse 156; respiration 46; temperature in axilla 99° Fahr. There was much difficulty in breathing, amounting to orthopnœa, and the sterno-cleido-mastoids were acting to assist respiration. The chest was slightly dull on percussion both in front and behind, as low as the third rib, and below that quite dull, rendering it impossible to define the præcordial dulness. There was prolonged expiration and occasional creaking at both apices of the lungs. There was no cardiac murmur, but the first sound of the heart had a very peculiar metallic twang. In the left axilla a distinct friction-sound of pericarditis was audible. Both sounds of the heart were unnaturally sharp and clear, and the impulse was much increased. The patient had a troublesome cough, which caused headache and loss of sleep. The abdomen was normal; the appetite good; the bowels regular; the urine high-coloured. She was treated with mild tonics, and an occasional linctus for the cough, and a belladonna plaster was applied to the cardiac region.

August 21.—No alteration. Pulse 141; respiration 42; temperature 100°.

22nd.—Pulse 136; respiration 40. Last night she had an alarming attack of syncope. Tongue coated.

23rd.—Pulse 136; respiration 40; temperature 98°.

24th.—Pulse 156; respiration 44; temperature 98·7°.

26th.—Pulse 144; respiration 40; temperature 99°. A petechial eruption has appeared on the arms and chest. Last night had a severe attack of dyspnœa.

28th.—Pulse 156; respiration 50. Face very pale. Great dyspnœa. Ordered carbonate of ammonia, squills, and ether.

30th.—Breathing less embarrassed. Was able to sleep lying down last night, for the first time since she came under observation. Decubitus on the left side only.

September 1.—Slept well. Complexion less dusky. Able to lie down in the daytime as well as at night.

17th.—Appears weaker. Œdema of the legs has appeared.

21st.—Dyspnœa much increased. Cannot lie down at night.

28th.—The skin became much darker than usual, the face and tongue being especially dark. There was absence of breathing and complete dulness over the middle lobe of the right lung.

On the 29th she appeared much more feeble, and became gradually unable to recognise those around her, and at last she had several attacks of syncope, and expired at eight o'clock, p.m.

Post-mortem Examination, October 2, sixty-eight hours after death.—Body much emaciated. Signs of putrefaction commencing on the abdomen, which was much distended with fluid. The legs were also œdematous. Sugillation of depending parts. Large petechial patches covered the thighs, body, right arm, and forearm, which were absent on the legs and left forearm. This redness became deeper in colour from the waist up to the neck and ear, which were of a deep purple colour. The genitals were also of a deep colour, the clitoris long (three-quarters of an inch in length). Rigor mortis slightly marked. On opening the chest, the skin was noticed to be unusually thin, and the thorax contained much fluid. The pericardium contained four ounces of fluid, and a coating of velvety lymph covered the whole of the anterior surface of the heart and corresponding pericardium. The lungs were universally adherent and much congested: the liver was also much congested, and on cutting into it was found to be very soft, and to contain dark bilious blood in a semi-coagulated condition. The heart was misplaced, the right auricle being very low down, and the apex tilted upwards and forwards. This auricle had the shape of a short horn or Phrygian cap, and was much dilated. The right auricular appendix was also much enlarged, the left appendix being smaller than usual. Between the two auricles the foramen ovale was seen to remain open, and was large enough to admit the middle finger without tearing. This aperture in front was made up of two or three musculi pectinati crossing each other, giving a plaited appearance, and behind was formed by a free margin of endocardium. The heart was unusually round, there being no distinct apex, and the ventricles were enormously hypertrophied and dilated, the whole organ weighing eighteen ounces. It is remarkable that with such an abnormal condition of the circulatory apparatus the child should have lived to be 13 years old.

BIRMINGHAM GENERAL HOSPITAL.

ACUTE PULMONARY CONSUMPTION—TEMPERATURE NOTES.

(Under the care of Dr. RUSSELL.)

THE term "pulmonary consumption," adopted from Niemeyer, is a convenient one to those who, like myself, await a decision by our teachers as to the proper limitation of the word

"tubercle." Whatever be the view entertained on this subject, the pneumonic process was doubtless the active agent in effecting the morbid changes observed in this case. The following sentence from Niemeyer well describes the nature of the disease:—"It may be said with perfect truth that all forms of pneumonia may end in caseous infiltration under certain conditions, and that there is no form of pneumonia of which caseous infiltration is a sole and constant termination. It is true that the difference is very great in the frequency with which the inflammatory products undergo cheesy transformation instead of liquefaction and absorption. In croupous pneumonia such a result is rare; in acute catarrhal pneumonia it is somewhat more frequent; while in the chronic catarrhal form it is almost the rule." My present case was one of "croupous" pneumonia. I have used the appellation "acute," though the duration of the case exceeded the usual length in acute phthisis.

I did not witness the post-mortem examination; but our Pathologist, Mr. Rickards, reported that the central part of the right lung was occupied by a large cavity containing yellowish puriform fetid fluid. The walls of the cavity were thick, like Gloucester cheese in colour and consistence. The apex of this lung was solidified by masses of white cheesy matter, the intermediate tissue exhibiting the ordinary red pneumonia. Some smaller cavities existed in the base, and a few granular knots. The whole left lung was in a state of pneumonic engorgement; the apex was consolidated, and contained a small cavity. A few granular knots, from the size of a pea to that of an acorn, were scattered through the lung. The bronchial glands were enlarged and cheesy; the mesenteric glands were healthy; but there were numerous ulcers in the ileum. The liver was fatty, and the vocal cords were somewhat thickened.

The patient was aged 35; intemperate; had been out of health for a year, but never had more than a slight cough. Six years ago, however, he spat a little blood. His father was said to have died consumptive. His illness had an acute commencement; he had "some shivering," and a bad cough, but no pain. He at once laid by. The case occupied just fifteen weeks, thirteen of which were spent in the Hospital. The symptoms were remarkable, from the absence of any active reaction, strikingly contrasting, in this respect, with the elevated temperature. The most prominent characteristic of his condition was great languor, increasing at an early period to marked prostration. The patient lay quietly on his back, hardly noticing what went on around him, yet perfectly alive to any questions put to him. His intellect, though torpid, was perfectly clear to the last. His face was quite pale, the pallor proceeding to complete anæmia. He had constant tremors. In the early period there was some tendency to rigor. At first his appetite was very bad, his aversion to food becoming so great that three weeks after admission nutritive enemata were prescribed; subsequently, however, he took liquid nourishment in moderate quantity. The tongue was perfectly natural to the last, and there was entire absence of diarrhœa. The urine was abundant, specific gravity 1015 to 1025, free from albumen, and contained abundant chlorides throughout; it was generally free from deposit, of deep yellow colour. Emaciation steadily progressed, but was not extreme. Perspiration was a very prominent symptom through the entire illness, being frequently of the most profuse character; it was general. As regards the chest symptoms, though cough was constant, expectoration was practically *absent entirely*, the smallest quantity of greenish mucus being all that was voided, and this only occasionally. He was quite free from pain.

At admission the evidence of consolidation existed only at the root of the right lung; thence it gradually extended, so as to include, by the fourteenth day after admission, the greater part of the lower lobe, but was not complete; the base, however, at this time, presented only coarse crepitation. On the left side the physical signs were limited to crepitation over the region of the lower lobe, the respiratory sound varying remarkably at different times from vesicular to blowing breathing. It was not till the end of the first month after admission that consolidation was noticed at the right apex; and the earliest sign of softening was observed in the right interscapular space at the end of the fifth week (the seventh of the illness).

The temperature illustrated in a remarkable manner the violent perturbations which disturb the course of pyrexia in this class of cases. It was regularly recorded by our Clinical Assistant, Mr. Bateman, from the day of admission (the fourteenth day) to the ninety-eighth day (within nine days of death). During the first ten days the temperature generally had the character of ordinary pneumonia, by maintaining a persistently rather light temperature, excepting that it exhibited a variation from 104° to 102° by one gradual decline, rising again as gradually to the original marking. On the eleventh and twelfth days successively it attained 105° in the morning, falling in the evening, and on the second occasion continuing to fall until, on the following evening, it was at 99°, whence it again attained its former elevation, within a degree, by the next morning. Thenceforward the markings presented considerable variation in the height attained, and often considerable remissions. Thus, the temperature several times scored 104° or 104·5°, more frequently 103° or 103·5°; on fewer occasions 102°, or even a degree lower. On the other hand, it descended many times to 99° and lower, on one occasion registering a fall of collapse from 104° in the evening to 93° next morning; on two other occasions marking 95° from 102° and 100° respectively. The general range of remissions was from 2° to 3°, but several occasions happened in which the variation in twenty-four hours equalled 5° or even 6°, and on two occasions even 7°. I should add that, with one or two exceptions, the elevated or depressed temperature was not maintained beyond a single observation. These "isolated brusque elevations and intercurrent falls of temperature," noticed by Wünderlich as sometimes occurring in the fever of ordinary pneumonia, are here exhibited in a protracted form. Wünderlich also notices that in protracted pneumonia "the daily maximum generally occurs about noon. In the evening there is a remission, which has a great tendency to collapse, and this is succeeded by a second though slight exacerbation about midnight." In my present case the evening remissions were observed on fifteen out of the eighty-four days.

ACUTE PURULENT PLEURISY—TEMPERATURE NOTES.

(Under the care of Dr. RUSSELL.)

A fine robust-looking man, aged 28, with traces upon his trunk of an eruption, probably syphilitic, of uncertain date, and admitted primary symptoms, was admitted with acute pleuro-pneumonia, apparently of the ordinary type, of three days' standing. In two days the physical signs indicated commencing resolution; but three days afterwards it was discovered that the pleuritic fluid, which had hitherto been very moderate in quantity, had suddenly occupied the entire right chest. Some albumen previously present in the urine had disappeared, and never returned, but the chlorides were not restored to the urine, nor did they regain their normal proportion till nine days afterwards. Profuse perspiration was present for a time. I did not see the case for five weeks after this time; but on my return home I found that, a month after the pleuritic aggravation, an abscess was opened over the mamma, with copious discharge, which continued for three weeks, when it lessened by degrees, but at the present time has not perfectly ceased. During this time the patient became extremely emaciated, but regained flesh with the diminution of the discharge, and is now in a fair state of health, though far below his original standard. The right side of the chest is falling in; the ribs are closely approximated; the right side has lost more than an inch in circumference; the right shoulder is two inches below its fellow; and the vertebral column exhibits the usual double curve. A fair amount of respiratory sound is heard over the upper lobe, but the chest is dull below the level of the seventh dorsal spine. The opposite lung is passing behind the sternum.

The temperature taken by Mr. Bateman for sixty-three days exhibited a permanent tendency to elevation of 102·5° to 103°, with moderate morning and evening variations, but divided into different periods of gradual rise and gradual fall. From 103° on the day after admission, it underwent through the succeeding eight days a steady decline of three degrees; then occurred in five days a gradual return to 103°, with little diurnal oscillation. Then a period of eleven days began and ended with an evening temperature of 102°, the intermediate term being occupied by gradual depressions followed by gradual rise to a less height; this period ended in a rather sudden fall to normal temperature, followed immediately by a spring in the evening to 101°, and a further rise of a degree and a half through the following two evenings, with a drop of three degrees in the mornings. During the next fifteen days the score varied between 100·5° and 99°; but three times rose to 101°, and three times fell to normal. At this time the abscess was opened, and thence occurred a gradual rise of temperature again to 102° in four days, continuing high in the evening through fourteen days, even to 102·5°, with some diurnal variations of four degrees; the last of these diurnal remissions introduced a permanently normal temperature on the sixty-second day.

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Medical Times and Gazette.

SATURDAY, OCTOBER 28, 1871.

THE LONDON DIALECTICAL SOCIETY ON "SPIRITUALISM."

It will doubtless be remembered by some of our readers, that many months ago, so far back as January, 1869, the London Dialectical Society, on the motion of Dr. Edmunds, appointed a Committee "to investigate the phenomena alleged to be spiritual manifestations, and to report thereon." The Committee cannot be accused of undue haste over their important work, for they did not present their report to the Society till July 20 last, and their labours are now given to the public in a large octavo volume of some 400 pages. We cannot say whether or no any enthusiastic spiritualists, or non-spiritualists, expected any solid result from the inquiry; but it seems to us that the whole question remains just where it was. Believers will certainly be believers still; and unbelievers will be fully justified in shrugging their shoulders and going on their ways undisturbed. As a scientific inquiry into the "phenomena alleged to be spiritual manifestations," the report is of no value whatever. Nevertheless, the volume is a very curious one, and deserving of attention for several reasons.

It is noteworthy that, though the Council of the London Dialectical Society received the report, and ordered it to be entered on their minutes, they declined to accede to the request of the Committee that it should be printed under the authority of the Society; and it has been published on the responsibility of the Committee only. Then we find that the Chairman of the Committee—the gentleman who proposed the inquiry—states that "the passing of the report, and the selection, publication, and reviewing of the evidence, has practically drifted into the hands of devoted and zealous spiritualists, who are led by skilled and successful writers." An editorial note to this statement affirms that, "of the five acting members of the editing Sub-committee, only *one* is a spiritualist;" to which Dr. Edmunds replies, that by "spiritualists," he means "not only such persons as have avowed a defined theory of causation by spirits, but also such as believe in the genuineness of 'mediums,' and of those more extraordinary phenomena which cannot be accounted for upon recognised hypotheses."

Again, the Committee state in their Report that the reports of the six Sub-committees into which the Grand Committee was divided, "substantially corroborate each other, and would appear to establish" various propositions which they put forth, the most important being—that sounds of a very varied character occur without being produced by muscular action or mechanical contrivance; that movements of heavy bodies take place without mechanical contrivance of any kind or adequate exertion of muscular force by the persons present; and that these sounds and movements, by means of a simple code of signals, answer questions, and spell out coherent communications. But when we turn to the reports of the Sub-committees, what do we find? Sub-committee No. 1, which worked very hard, and held no less than forty meetings, saw heavy bodies moved without contact with any human being. Sub-committee No. 2 reports that it witnessed all these manifestations, and in very startling forms, and "presumably established occasional communication with a number of spirits, or intelligences—announced to be such by themselves—many of whom stated they were connected in various degrees of relationship to certain members of the party, for whom they professed a friendly regard." Sub-committee No. 3 was almost entirely occupied in watching and testing the tilting of tables, but believe that "the phenomena witnessed, though comparatively unimportant, *do*, nevertheless, raise some most important questions in science and philosophy," and deserve full examination. Sub-committee No. 4 simply reports that, "Nothing occurred in the presence of this Sub-committee worth recording." Sub-committee No. 5 was considered, we suppose, the most important of these bodies, for it was honoured by the attendance of Mr. Home, and of two noblemen whose names, if we mistake not, have occurred frequently in reports of spirit "communications"; but the *séances* were productive of but very few and very trifling phenomena. The report says that "Mr. Home afforded every facility for examination, and appeared to be anxious to further the object which the Committee had in view," but "nothing occurred at any of the meetings which could be attributed to supernatural causes. The members had fully expected that they would have witnessed some of the alleged extraordinary levitations of Mr. Home; but he explained at the opening of the inquiry that the phenomena produced through his agency were of uncertain manifestation, and that he had no power whatever to produce them at will. The *séances* were held in a fully lighted room." Sub-committee No. 6 sends in a short and very significant report—"The Committee met four times, but failed to obtain any phenomena that deserve to be recorded. On one occasion a lady visitor brought with her two little girls, aged, apparently, about 8 and 10 years respectively, whom she declared to be mediums. The children were placed at a small chess-table, which they proceeded deliberately to rock to and fro, to their own intense delight and the amusement of the company. At no other meeting was there even the pretence of any spiritual phenomena."

It appears, then, that of the six Sub-committees half saw really nothing whatever, and only one, No. 2, was favoured with any of the communications, "presumably spiritualistic," by signals; and yet the Committee coolly states that "a large majority of the members of your Committee have become actual witnesses to several phases of the phenomena without the aid or presence of any professional medium," and that the reports "substantially corroborate each other." We venture to think that less corroboration, as the term is ordinarily used, can hardly be imagined; but we are not members of the London Dialectical Society, and on referring to our English dictionary, as is our wont when expressions puzzle us, we find that the term "dialectical" is "applied more generally to any peculiar style or manner of expression, speech, or language," so we cease to wonder at what appears to us an extraordinary use, by the Committee of the London Dialectical Society, of the expression "substantially corroborate."

It is to be remarked that none of the Sub-committees succeeded "in ascertaining any specific conditions that would command the production of the phenomena," but that Sub-committee No. 2 states that "a somewhat moderate supply of light appeared to aid the manifestations," that their few trials by daylight invariably resulted in failure, and that "we

invariably failed to obtain manifestations without the presence of the two ladies in our party;" and that Sub-committee No. 3 says that "it was only when certain persons were present that any evidence of this (peculiar) force and intelligence were presented. Two friends were particularly noticed as indispensable." These are candid avowals; and it must be allowed that the Committee has not hesitated to publish very hostile criticism and evidence. The volume contains the report, "the evidence oral and written, and a selection from the correspondence"; and the editing Sub-committee has frankly published communications of a by no means complimentary or corroborative character.

Mr. G. H. Lewes writes—"In my experience—and it has been large—the *means* (of producing the so-called spiritualistic phenomena) have always been proved to be either deliberate imposture, aided by the unconscious assistance of spectators, or the well-known effects of expectant attention." Professor Tyndall's reply to an invitation from the Committee is amusing and significant. He states that, more than a year previously, he had been favoured by a visit from Mr. Cromwell Varley, "one of the greatest of modern spiritualists," who told him that his presence at a *séance* resembled that of a great magnet among a number of small ones—he threw all into confusion. "A comparison which," observes the Professor, "though flattering to my spiritual strength, seems to mark me out as unfit for spiritual investigations." Mr. Varley, however, hoped that arrangements might be made to show him the phenomena, and he expressed his willingness to witness them. "But," he adds, "I have not since been favoured by a visit from Mr. Varley." And Professor Huxley declines to act on the Committee in a letter which must have made that body grieve much for his mental attitude. He says—"In the first place, I have no time for such an inquiry, which would involve much trouble and (unless it were unlike all the inquiries of the kind I have known) much annoyance. In the second place, I take no interest in the subject. The only case of 'spiritualism' I have had the opportunity of examining into for myself was as gross an imposture as ever came under my notice. But, supposing the phenomena to be genuine, they do not interest me. If anybody would endow me with the faculty of listening to the chatter of old women and curates in the nearest cathedral town, I should decline the privilege, having better things to do; and if the folk in the spiritual world do not talk more wisely and sensibly than their friends report them to do, I put them in the same category." And then, remembering probably the remark made by an ex-Lord Chancellor, that a noble biographer of departed Lord Chancellors had added a new terror to death, the Professor goes on to say, "The only good I can see in the demonstration of the truth of 'spiritualism,' is to furnish an additional argument against suicide. Better live a crossing-sweeper than die and be made to talk twaddle by a 'medium,' hired at a guinea a *séance*."

The Committee—even the believers on it—must, on the whole, have felt grievously disappointed with the very meagre and limited experience of the various Sub-committees. With the exception of Sub-committee No. 2, the spirit-world neglected them to a degree that in worldly matters would indicate absolute indifference, if not contempt. No scientific spirit seized the opportunity of enlightening the world; no tender and compassionate spirit was moved to reward weary waitings for manifestations; no "lying spirit" even cared to utilise such unusual chances of finding human minds in a beautiful state of receptivity; nor any "vagabond spirit" to take advantage of so many openings for fun and larking. Of course we are speaking of the spirit-world of the "spiritualists," and using terms used by them, or we should hardly venture to class spirits in this way. Sub-committee No. 2 was visited by some very merry and convivial spirits, and the spirits informed this Committee that "disputation amongst ourselves at a *séance* was a disturbing element, but that they liked fun and joking occasionally." The visits of scientific spirits appear to be very rare. The reason of this, according to Mr. Varley, is, that spirits of high intelligence require mediums of high intelligence; and he "has failed at present to find a medium acquainted with science, and therefore capable of translating into intelligible language ideas of a scientific nature." He was himself, however, once in communication with the spirit of Dr. Franklin, and does not appear to have gained any new scientific knowledge.

We must defer, however, to our next impression what remarks we have to make on the copious and remarkable "communications" published by the Committee.

PHYSICAL DEGENERACY OF THE PRESENT GENERATION.

In the Health Department of the Social Science Association, a paper by Dr. Rumsey, "On the Progressive Degeneracy of Race in the Town Populations of Britain," was read by Dr. A. P. Stewart. The author quoted evidence from leading journals in support of the assertion that the average physical type of Englishmen had degenerated of late years, that broad chests and powerful limbs were no longer common among labourers and artizans, and that Medical examiners of recruits rejected a larger proportion every year; while those admitted into the ranks, especially of Militia regiments, were very inferior in height, bone, and muscle to their elder comrades. The author also referred to the researches of Dr. Beddoe, respecting the stature and bulk of men in these islands, and to the Army Recruiting Returns, which concurred in showing that the rejection of recruits on account of bodily unfitness had increased from 6 to 10 per cent. during the last thirty years; and that this degeneracy is fairly attributable, in great degree, to the growing concentration of the working-classes in towns, to the depressing circumstances of town life, and to the large number of those engaged in indoor employment.

Now, as we are of those who think that there is sufficient reason, if it were merely in the increased average length of life of the population of the British Islands, for doubting that a progressive physical degeneration of race is gradually at work among us, we have been induced to examine for ourselves into such facts as the Returns of Recruiting for the Army may contain. We have therefore consulted the Report of the Commission presided over by Sidney Herbert in 1857, to inquire into the sanitary condition of the Army, and the Statistical Reports of the Army Medical Department from 1860 till 1869. We find in the former authority, at page 193, a Report prepared, we believe, by Dr. Balfour, F.R.S., the present head of the Statistical Branch of the Office of the Director-General of the Army Medical Department, who acted as Secretary to Lord Herbert's Commission. We find in the preliminary observations that the Returns subsequently given do not show the total number of recruits inspected for the Army, but merely the numbers at the head-quarters of the different recruiting districts, and, unfortunately, do not distinguish between primary and secondary inspections, men enlisted at head-quarters, and those previously inspected at out-stations. In attempting, therefore, to compare the results given in these tables with those of later date in the Statistical Reports of the Army Medical Department, this observation must be borne in mind, otherwise we shall not be comparing like with like, as in the latter Returns—at least, from 1864 till 1869—the distinction between primary and secondary is observed, and strikingly modifies the results. It is obvious that the total number of men primarily inspected is the correct basis on which to calculate the proportion of rejections; because the number of men secondarily inspected represents a class from which a considerable number has been already eliminated by the primary inspection, and therefore, if added to the number primarily

inspected, would very materially modify the composition of the whole.

From the returns given in the Report of Sidney Herbert's Commission, we learn that from April, 1832, till March, 1841, in a total number of primary and secondary inspections amounting to 134,621, there were 40,076 rejections; and from April, 1842, till March, 1851, in a similar total of 171,276, the number of rejections was 57,381; or in the whole period of twenty years, in a total of 205,897, there were 97,457 rejections, being in the proportion of 318·60 per 1000. In the tables given in the appendices of the several Statistical Reports of the Army Medical Department, are abstracts showing the number of recruits and the numbers found unfit for service at the head-quarters of the recruiting districts during each year, from which it is easy to find the total of primary and secondary inspections, thus assimilating the basis of comparison with that given in Sidney Herbert's Report. We thus find that from 1860 till 1869, from a total of 145,396 primary and secondary inspections, there were 47,666 rejections, being in the proportion of 327·84 per 1000, or 9·24 per 1000 (or less than 1 per cent.) more than the proportion rejected between 1832 and 1851; and this very slight difference would be fully accounted for by the fact that during 1838, in consequence of the disturbances in Canada, there was a sudden demand for 10,000 recruits, to obtain whom a considerable relaxation in the practice of rejections was necessary. No such extra demand existed during the period from 1860 till 1869.

Having made these deductions from the facts represented by the figures given in the official returns from which we have quoted, and which we believe furnish the most reliable information on the subject, and not having had the opportunity of examining the data on which Dr. Rumsey founds his statement that the proportion of rejections of recruits during the last thirty years has increased from 6 to 10 per cent., we are at a loss as to the authority on which he makes his statement. We believe, at the same time, that we are correct in stating that there are no reliable statistics of the results of recruiting for the Army during any period earlier than that referred to in the returns from which we have quoted. During that period it should also be borne in mind that the recruiting sergeant first commenced to feel the presence of competition in the labour market, from the increased demand for both skilled and unskilled labour in the construction of railways, from the increase of emigration, and of the general improvement in the material prosperity of the population. We think, therefore, that we have shown that—so far, at least, as recruiting is concerned—there is foundation for the opinion that in the physical condition of our race we have as a nation, at least, not lost ground during the last few generations.

THE BEDFORD INFIRMARY—DEFECTIVE HOSPITAL ACCOMMODATION.

For some time past an important section of the Governors of this Infirmary have been desirous of improving and enlarging it. A Committee which had been appointed on the subject had carried the following resolutions:—

1. "That it is the opinion of this Committee that the present accommodation of this Infirmary is inadequate for the number of beds now in the Infirmary; and to give the minimum space of 1200 cubic feet to each patient, the number of beds should be reduced to fifty-seven."

2. "That this Committee, having fully examined the question of accommodation in the Infirmary, with reference to the average number of in-patients during the last few years, and in comparison with the space provided per patient in the last Hospitals of modern construction, consider that the building should be so enlarged as to provide a minimum of 1200 cubic feet for at least eighty beds."

At the quarterly meeting of the governors of the institution, held on the 9th inst., these resolutions were read, and Lieutenant-Colonel Stuart, on behalf of the Committee to whom the subject had been referred, entered into some details and figures to show the importance and necessity of carrying out their recommendations. He stated that in the Bedford Infirmary the number of cubic feet for each bed averaged 736½, and the superficial area 64 feet. He showed that in Addenbrooke's Hospital, Cambridge, a space was allowed of 1800 feet for Medical, and 1900 feet for Surgical cases, with 100 feet superficial area for bed; that in the new St. Thomas's Hospital, London, the number of cubic feet for each bed was 1800, the space for each bed 120 feet; in Bury St. Edmunds Hospital, 1500 cubic feet and 100 feet respectively; in Northampton, 1139 cubic feet and 81 feet; and in Leicester 1600 cubic feet and 100 feet. The gallant gentleman showed conclusively that the wards of the Bedford Infirmary were most inadequate in the two points referred to in the report of the Committee, and urged upon the Governors the importance of making the improvements suggested. Having formally moved that the report of the Committee be adopted, Mr. Howard said that, with the corridors, instead of the average of sixty-five patients having 1050 cubic feet, they must add 150 feet for each patient. Dr. Shaw said corridors were most objectionable in Hospitals. Mr. Sharpin remarked that in other Hospitals corridors were not calculated. If the air in the Bedford Infirmary were so healthy as asserted, it was strange that all the nurses should have had erysipelas. It was not fair to take the average number of patients as the basis of testing the amount of cubic space per patient, because on the men's side they would find that the beds were filled, when on the women's side there were but few patients. A few days ago the men's wards were much too full, and in one ward the patients had something like 600 cubic feet each. There was a general impression that the health on that side was good, but his own impression was quite the reverse. It was his opinion that the Hospital was calculated to hold only fifty-seven patients. Mr. Tucker seconded Colonel Stuart's proposition, and enforced its necessity in an able speech. Mr. Sharman opposed the adoption of the report, and had failed to see from the letters addressed to the different Hospitals by the Committee that they have referred to the corridors. The letter briefly asked, "How many cubic feet are allowed in your wards for each patient and bed; whether any deduction is made for bedding, furniture, etc., contained in the wards?" Now, he (Mr. Sharman) had a letter from Dr. Edward Smith, who said—"Our rule is as follows: Wards 20 feet wide for two rows of beds, 10 to 12 feet in height, and 6 feet 9 inches wall-space to each bed—say 10 by 6 feet—equals 60 feet floor-space by 11 feet, equal 660 cubic feet each bed." So, continued Mr. Sharman, they had actually more space for the highest number in that Hospital than Dr. Smith thought necessary. The enlargement would cost £4000 or £5000, which must be taken from the funded property, and would, with other outlays, diminish their income by about £400 a year. An amendment was proposed and seconded, that the "report be received and entered on the minutes." This was carried by twenty-six against seven. Another resolution was proposed by Col. Higgins and seconded by Col. Stuart—"That it is the opinion of this meeting that the present accommodation of this Infirmary, as to cubic space, is inadequate to the number of beds." This was opposed by Mr. Chapman, a gentleman, who, thirty years before, had been House-Surgeon to the institution, but since then has taken little interest in the Infirmary. He said his experience of the Infirmary convinced him that the ventilation was so good, that even if the number of cubic feet was comparatively small, the result would not be felt as it would be if the ventilation were less. This superior ventilation was the cause that so few cases arose in the Hospital from a vitiated atmosphere. Besides, the Hospital was so constructed that, if necessary, arrangements could be speedily made to convert the women's into men's wards. Eventually an amend-

ment was carried, by twenty-three against sixteen, to the following effect:—

"That there is no evidence before us sufficient to enable us to come to a proper decision on the subject."

We have referred to the above proceedings at some length, because they are of importance to other institutions than the Bedford Infirmary, and because they show what fallacious arguments are occasionally made use of on the score of "inexpedience" and "economy." There can be no question, all quibbles set aside, that the Infirmary is deficient in proper accommodation; and the Senior Surgeon, a man of sagacity and experience, declares that in his opinion the healthiest of its wards are not healthy, and that every nurse in the institution has suffered from erysipelas. In reference to the statement of Dr. Edward Smith, that 660 cubic feet are deemed sufficient in workhouse infirmaries, it must be remembered that it is imagined these do not constantly contain cases of serious accidents, and that it is particularly provided, in the construction of these infirmaries, that the ventilation should be effected by special means, apart from the usual means of doors, windows, and fire-places, and that the wards have windows on opposite sides. The plea of poverty cannot be sustained by the Governors of the Infirmary, which, in addition to a handsome yearly subscription, has £40,000 in the funds. With all due deference to the opinion of the majority, we think that a few thousands of this sum spent in enlarging the Hospital would be an "expedient" and "economical" proceeding.

We regret that the Governors of the Bedford Infirmary should have ignored the report of their own Committee—always an invidious, if not an unjust, proceeding—considering that it was drawn up with great care, and after much inquiry and mature consideration; that they should, moreover, set at defiance the result arrived at by a vast majority of the Profession, and by competent architects and surveyors. The question cannot rest where it now is. The majority, we venture to say, on some future occasion, not far distant, will be reversed. That majority must eventually be in favour of progression, and of the prevention as well as the cure of disease.

THE WEEK.

TOPICS OF THE DAY.

At the last meeting of the Council of the Royal College of Surgeons, a decision was arrived at as to the partition of the fees to be paid by students who shall present themselves for the Conjoint Examinations of the two Colleges of Physicians and Surgeons. As the proposed Conjoint Board is only a partial one, and will fail to secure a uniform examination and licence for the general Practitioner of Medicine, Surgery, and Midwifery, it will be neither satisfactory to the Profession nor to the public. We cannot but think that the Council of the Royal College of Surgeons would not fulfil the trust they have received if they imperilled their revenues for the sake of a scheme which has failed to secure the adhesion of all even of the English Examining Bodies, and which will certainly not diminish the competition between the Examining Bodies of England, Scotland, and Ireland. We need not say that that competition will not be one which is likely to raise the standard of Medical Education.

An important subject has been brought before the Council of the College of Surgeons by Mr. Gay. It is the number of rejections at the Preliminary Examination for the Membership. We believe that the number of rejections at the Preliminary Examinations both at the Royal College of Surgeons and at Apothecaries' Hall has been recently very large. This is certainly a matter for inquiry, and is much to be deplored; but, at the same time, we are not prepared to admit that the standard imposed by the Examiners of these two institutions is at all too high. The fact, however, reveals either the great shortcomings of the English process of education or the fact that a large minority of English boys of 17 are not capable of acquiring a fair knowledge of their own language, a moderate knowledge of two other languages, and of learning history and elementary mathematics and arithmetic. It must be remembered that previously to the present system of Examinations there was no test of the attainments of the average English schoolboy. A boy left school because he had reached a certain age, not because he had reached a certain standard of knowledge. The stupid boy might, in after years, when his brain-power was more developed, make up for early failure, or he might get into some walk of life where book-knowledge was not necessary. But under the present system of examinational tests at the threshold of every gentlemanly occupation, what is to become of the stupid boys? We are far from maintaining that they should be admitted into such a Profession as the Medical, but we think it may be safely asserted that the admission into the rank and file of the Medical Profession should be open to the average of the youth of the upper middle-class of society. We have yet, however, to learn that this standard has been exceeded by the institutions we have named. Facts, however, have proved that this standard has been exceeded—and, we think, very unwarrantably exceeded—in the case of the Matriculation Examination of the University of London. A few weeks ago we published a letter from a correspondent which placed the matter in a very just light. At the last Matriculation Examination of the University about 600 candidates presented themselves, and of these nearly 400 were rejected. It must be remembered that all these candidates had prepared themselves, at least to a certain extent, for the ordeal, and that the subjects of the Examination were perfectly well known. The University is supported by the State for the promotion of education amongst the people, and for the very lowest step in graduation it sets up a standard which four out of six educated English lads cannot pass. It cannot, therefore, be said to fulfil its national purpose. The fact is, that the lads are examined in ten subjects, failure in any one of which rejects the candidate. Amongst these subjects are Natural Philosophy and Chemistry; and it is no secret that the greatest dissatisfaction has been produced by the character of the papers set in the former subject. The system of requiring a certain standard in all subjects of examination, and of allowing nothing for high proficiency in any, if a smattering of all have not been obtained, may be useful in the production of respectable mediocrities, but it is fatal to the development of special talent. We need not say that it is not by this system that Oxford and Cambridge have earned their laurels.

In the case of murder at Stockwell, the plea of insanity has been advanced, and it is supported by the opinion of Dr. Rugg, the Medical man who first saw the Rev. Mr. Watson. He says that on his visit to Mr. Watson the prisoner showed him an oyster-shell, and made some trivial remark about it; and he considers this to have showed that Mr. Watson was oblivious of the awful position in which he was placed. The analysis of the fluid taken by Mr. Watson proved that it contained prussic acid, and a large number of blood-stains were found upon his clothes, and on the pistol found were portions of human skin, and hairs on a sponge. The analyst was Dr. John Muter, Director of the South London School of Chemistry and Pharmacy. It is to be hoped, in the interests of society, that sufficient evidence of the insanity of the prisoner will be collected to warrant his acquittal on that ground. The murder was evidently purposeless; and although a Latin sentence found written on a slip of paper on his study table seemed to show that he was not happy with his wife, there is not a scrap of evidence to prove that the crime was premeditated.

A letter from a "Would-be Indian Surgeon," in a recent number of the *Times*, points out that there has been no examination for the Indian Medical Service for nearly two years, and complains that so short a notice of an examination is given by the Government authorities. It is not yet announced whether there is to be an examination in February next.

The Senatus Academicus of the University of Edinburgh, after a long discussion, has adopted a resolution to the effect that no further difficulties are to be placed in the way of women-students as regards either Matriculation or Preliminary Examination. The Senatus will probably succeed in ruining the University of Edinburgh as a Medical School for male students.

The deaths in London from small-pox, which were 61 in the previous week, fell to 53 last week. There were 237 deaths from the seven principal diseases of the zymotic class, against 238 and 271 in the two preceding weeks.

The English must look to their laurels. The Germans are developing into sailors, as well as soldiers and philosophers. A telegram from Gotha, dated October 20, announces that Dr. Petermann has received detailed accounts from the North Pole explorers, Herren Payor and Weiprecht. These dispatches fully confirm their discovery of an ice-free North Pole sea, which swarms with whales.

H.M.S. "MEGÆRA."

The account of the loss of this ship, by being beached in an unseaworthy condition at the Island of St. Paul, on June 19 last, has been received at the Admiralty from her commanding officer, Captain Arthur T. Thrupp. It will afford much relief throughout the country to learn that up to July 9 the ship-wrecked party had experienced fewer sufferings than might have been expected. They had not only succeeded in taking ashore with them four months' provisions, including a supply of rum and wine, but had also found 3000 lbs. of rice on the island. Fish were to be had in abundance, 100 lbs. to 150 lbs. being caught daily during fair weather, but much less when the weather was unfavourable. There were also about a hundred wild goats, a large quantity of mushrooms, and some few cabbages and potatoes. But still, after having been three weeks on shore without having had an opportunity of sending information as to their condition, the Captain thought it advisable to reduce the allowance of provisions, and each man was getting only four ounces of biscuit and half a pound of salt or preserved meat a day, half an allowance of tea every other day, and a quarter-allowance only of sugar; but, there being plenty of cocoa, the men had that every second night instead of tea. Lime-juice without sugar was being served out every other day; no flour was being issued. The charts reporting no water on the island, three tanks were hoisted out from the vessel to use as boilers for condensing; a supply of coals was also landed; and it was calculated that with coals 300 gallons, and with turf 150 gallons, could be made daily. But rain-water was found in abundance in cavities among the cliffs, at a distance of 860 feet from the ship, to which it was conveyed through hose; and rain being very frequent at that season, there was no uneasiness felt as to the supply of water. Hot fresh-water springs, strongly impregnated with sulphur, so as to be unsuitable for drinking, furnished a plentiful supply for washing, and the clay around them, being found to lather well, served as a substitute for soap. There were several sheds and houses on shore, so that, with tents constructed of new sails landed from the ship, men and stores were got under cover. The weather was very severe—high winds, haily squalls, and rain, the higher parts of the island near the signal-staff being covered with snow, and the temperature below 42° at night. The climate, however, appeared healthy. On June 20 only five men were on the sick-list from wounds and sores. On July 9 some of the men and officers were suffering from diarrhœa and slight dysentery, and there was one severe case of acute rheumatism; but there were, however, only eight on the sick-list, owing to the great care of the Medical officers in inspecting the tents, and seeing that they were kept clean and dry. Parties had been sent out to collect different grasses, with herbs, dandelions, and other substitutes for ordinary vegetables that could be found, to prevent the men suffering from scurvy, as there was very little lime-juice left, and they succeeded in cooking some tolerable vegetables. The island appears to have been not entirely uninhabited, as Captain Thrupp mentions having procured the services of a "Frenchman here," to assist in the selection of a berth for the ship. Captain Thrupp's dispatch is a characteristic specimen of the noblest qualities of the British sailor. It is simple, straightforward, and manly, and is full of instances of the willing and cheerful endurance of hardships by all ranks, and of the readiness of resource under difficulties, which have at all times distinguished our race, and which, notwithstanding the disparaging conclusions of social science philosophers as to our physical degeneracy in the present day, continue to do so in all climes and under all circumstances in which such qualities are put to the test. We find by the Navy List of April last that the Medical officers on board the *Megæra* were Surgeon William H. Adam and Acting Assistant-Surgeon William F. Sweetman, on voyage to join H.M.S. *Blanche*, and Surgeon James L. Whitney, about to join H.M.S. *Rosario*.

THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

The first meeting of this Society for the present session was held on Tuesday at the Society's rooms. Formerly these meetings did not begin till November, but this year it was determined to commence a month earlier, and the first meeting would have been held a fortnight ago had it not been for the alterations going on in the premises of the Society. These are now very nearly completed—sufficiently so, at all events, to admit of the meetings of the Society—and promise to be exceedingly convenient to the Fellows. The new room built at the back of the old meeting-room is not yet ready for use, but will be exceedingly useful for those who desire merely a look at the Medical papers, whilst arrangements will be made in the great hall for the accommodation of those who do not desire to take books from the library, but merely to consult them on the spot. A new staircase has been made, improving the access to the store of books in the floor above; whilst at the same time the communication between the ante-rooms and hall has been improved. Meanwhile the meeting-room looks brighter and smarter for its renovation.

The subjects discussed on Tuesday were—a curious case of biliary calculus producing fatal obstruction of the bowels, by Mr. Le Gros Clark; and some observations on the relative merits of chloroform and ether as anæsthetics, by Mr. Warrington Haward. An important question, as far as the calculi were concerned, was, whether they had reached the gut by the ductus communis, or by ulceration. Of the latter there was no trace, and there had never been jaundice. Altogether the case was one of much interest. Mr. Haward made some observations on the use of ether as an anæsthetic. He had tried it a good many times—among others, in certain cases where chloroform would have been dangerous—and had invented a plan for giving it satisfactorily and comfortably. A good deal of discussion followed.

A NEW ENGLISH HOSPITAL IN PARIS.

In addition to his many other gifts to charities, and his labours with the Ambulance Committee during the late war, Sir Richard Wallace has established, entirely at his own expense, a Hospital for the English at Paris. Until a proper building be erected it will be conducted temporarily in spacious premises in the Rue de la Révolte. The situation of the new building will be in the neighbourhood of Passy, and will be extensive enough to contain thirty beds, to be divided equally between the sexes. The first committee of management will consist of the founder, Mr. Atlee, the British Consul, and Drs. Rose Cormack and Herbert, who will also be Physicians to the institution.

MEDICAL CLERGYMEN.

The combination of the offices, if not of the active duties, of Physician and clergyman is an idea of no mere recent realisation. The ordination of Mr. Hugh Croskery, M.R.C.S., to the office of Deacon by the Bishop of Jamaica was only so far an innovation upon established practice that he seems to have been ordained without the usual appointment to a curacy. But such an exception is by no means singular. It is always made in favour of Fellows of Colleges; sometimes, also, in favour of Masters of Arts actually resident at the university, and others at the Bishop's discretion. The late Professor Clark, of Cambridge, to whom the present anatomical museum at that University is so much indebted, both for valuable additions and scientific arrangement, and who was also the accomplished translator and editor of Van der Hoeven's "Zoology," was at one and the same time Professor of Anatomy, M.D., F.R.C.S. Lond., a clergyman of the Church of England, and rector of a parish in Yorkshire. The present Bishop of Ripon having formerly practised as a Medical man, though subsequently ordained, was, not many years since, and after his elevation to the Episcopal Bench, created a F.R.C.S. The same was the case with Bishop M'Dougall, the retired Bishop of Labuan. There are also scattered throughout the country many clergymen who were originally Medical men, some of them possessing, and of course in such cases retaining, M.D. degrees, upon which degrees, in fact, they have satisfied the Bishop's requirement of having received an academical education. With the exception of Professor Clark—who, however, did not pursue private practice after obtaining clerical preferment—these gentlemen have virtually withdrawn from the active duties of the Medical Profession. The converse, however, seems to be the intention of Mr. Croskery, who, it is stated, will continue his Medical practice without undertaking any spiritual charge. In such case it is somewhat difficult to perceive the object of the combination, except that there may be a paucity of clergymen in some of the outlying districts of Jamaica, and a Medical man thus authorised to administer spiritual consolation may occasionally, if not frequently, supply the pressing need. Such a combination has in bygone times been somewhat abused. In the middle ages clerical Physicians were the rule, and a canon of the Church directed them to postpone the cure of the body until the more important cure of the soul had first been effected. It is needless to say that this gave these clerical Physicians an immense spiritual power over their patients, and also an undue advantage over their lay competitors.

THE GUARDIANS OF THE SOUTHAMPTON INCORPORATION AND HOMŒOPATHY.

Mr. Edward J. Archer, whose appointment by the Guardians of the Southampton Incorporation as one of their District Medical Officers has been much objected to, on account of his adoption of the system of homœopathy in the treatment of his patients, appears to have entered on the active discharge of the duties of the office. In this Incorporation the Guardians undertake to supply at their own cost the necessary medicines and drugs for the use of the sick poor; and at their meeting held on the 5th inst., a letter was read from Mr. Archer which contained the following passage:—

"I beg to inform you that, in order to do justice to the patients of the district, and to facilitate their early recovery, I am desirous of being furnished with a few of the most important homœopathic medicines. They are not included in the British Pharmacopœia, and there is nothing mentioned in it which can at all take their places. They are comparatively inexpensive, and will last a considerable time. I enclose a list."

A resolution was proposed and carried, to the effect that Mr. Archer's application be acceded to. We believe that this is the first instance in which homœopathic medicines have been provided at the cost of the ratepayers for the use of a Medical officer. As Mr. Archer possesses the prescribed Medical and Surgical qualifications, we do not know whether the Local Government Board will refuse their assent to the appointment; but we shall be anxious to learn what action is taken in the matter by the central authority if, as is very probable, the poor become dissatisfied with this (to them) novel treatment. We have no hesitation, however, in expressing our opinion that the Local Government Board will not do their duty if they sanction the treatment of the sick poor by homœopathy.

THE EXTINCTION OF THE UNFIT.

More than once there has been shadowed forth, during the discussion of the evolutionary hypothesis, an idea or a suggestion that our Profession was in reality an opposing force to the natural course of things in uncivilised society. The law of evolution proclaims—The fittest shall live; the unfit die. But what is our work if it is not to neutralise the latter portion of this law? Dr. Richardson, of Philadelphia, in his lecture introductory to the Course of Pathological Anatomy in the University of Pennsylvania (*Philadelphia Medical Times*), has formulated this portion of the law: he terms it the "extinction of the unfit." It is a theory we would do well to recognise (this tendency to extinction), as in many instances we have it in our power to so modify the course of events that the unfit shall become fit, and leave behind him a still fitter progeny. If we are to succeed in our endeavour, however, we must act as nearly as possible after the fashion of nature; to make a weakly individual strong, we must make ourselves acquainted with any hereditary taint, and seek to neutralise it (or more than neutralise it) by careful sanitation, the selection of the most suitable climatic conditions, and the most appropriate kinds of food. Thereby we may hope not only to combat the law of the extinction of the unfit, but to do something more. A lifelong invalid existence is not, perhaps, a pleasant thing to which to look forward, but viewed in this light it is not without hope. A steady observance of the rules of health may be rewarded with an increasing measure of that blessing. Not only so, but it may in time justify a man in forming family ties he would otherwise shrink from, and he may hope to beget a fitter family than that of which he was a member.

THE ST. PANCRAS GUARDIANS AGAIN!

As usual, the St. Pancras Guardians are opposed to any scheme which seems to offer reasonable hopes of preventing disease by sanitary measures. They are already at war with the new Local Government Board. They have entered a protest against the proposal of the Board to issue an order to enable the Metropolitan Asylums Board to provide Hospital accommodation for cholera patients. The Guardians express a hope that the Government will not carry out the Board's intentions, which would "entail an outlay of £150,000 at the cost of the ratepayers of the metropolis." They further assert that an epidemic of cholera can be satisfactorily met by the local authorities. It will therefore, they say, be the business of the ratepayers to obtain the maximum amount of protection, secured at a minimum cost. No doubt, an epidemic of cholera could be satisfactorily met by the local authorities, provided these authorities did their duty satisfactorily, which is not always the case. It was to enforce upon "local authorities" this execution of their duty that the Local Government Act was passed.

ILL-GOTTEN REVENUE.

It is a disgrace to the Government of this country that it still derives some income from the sale of patent medicines. For the paltry sum of £68,000 odd, the Government allies itself with quacks and quackery, and gives the "authority" of its name to the "genuineness" of the trash sold under the name of patent medicine. The amount of mischief inflicted by secret "remedies" is out of all proportion to the advantage which the stamp duty gives the State.

UTILISATION OF SEWAGE—A NOVEL PURCHASE.

Whilst the important question of the utilisation of sewage is being discussed, a private company in Glasgow has been formed for the purpose (as the *Glasgow Herald* says) of "relieving the city of a public nuisance." The company has purchased that part of the sewage at present collected in the various urinals throughout the city. The company is to pay £1000 a year for twelve years for the daily collection for the same period. During the night the daily collection is to be removed to the company's works, where, after an ingenious mechanical and chemical process, the liquid will be resolved into sulphate of ammonia. The example thus set by our "canny" neighbours might, we believe, be followed with advantage in our own metropolis.

SMALL-POX IN WOLVERHAMPTON—NEGLECT OF SANITARY MEASURES.

The epidemic of small-pox continues its ravages in various districts. Wolverhampton is now the locality chiefly infected. There are upwards of 200 cases in the borough, and the number is daily increasing. The epidemic has broken out in the police-barracks. One policeman was removed thence to die in the Workhouse Infirmary. On Thursday last these barracks were abandoned for a new building, and extemporised into a Small-pox Hospital for Wolverhampton. The town is in "a shocking condition as to its sanitary aspect." The Sanitary Committee urge the necessity of the appointment of a Medical Officer, and other remedial measures are declared to be necessary. The death-rate is 33 in the 1000. Application is about to be made to the Home Office to interfere and compel prompt action by the local authorities.

MEDICAL METEOROLOGY.

Assistant-Surgeon Verchere, of the Indian Army, has suggested that some experiments should be made with reference to meteorological influences on sickness and health. Medical meteorology in India is still all but an unknown science, and, as at present studied, is useless to Medical Practitioners. The long range of "readings" tell us nothing; but a register of the effects of meteorological conditions on the men selected for the purpose, with all conditions of exposure, etc., taken into account, and compared with the average sickness of a corps for the same period, would teach us more in a few months than yards of meteorological tables. We understand that the Sanitary Commissioners of India are favourable to the proposal of Mr. Verchere, and it will therefore, probably, be carried out.

MR. HOLMES COOTE.

We are very glad to learn that the announcement of the retirement of this eminent Surgeon was premature. He had been suffering from the effects of overwork, but is now sufficiently recovered to resume his usual duties.

CRIMINAL ABORTION IN AMERICA.

The *Journal of the Boston Gynæcological Society* for May and October contains some interesting facts relating to criminal abortion, by Dr. Warker, of Syracuse, New York. The former paper dealt with instrumental abortion; that in the present issue deals with abortion by medication. The exceeding commonness of the crime in America is well known, especially owing to recent exposures of the doings of professional abortionists; but these trust as a rule to the use of instruments, and to them few apply who have not already done their best to remove the "obstruction," as it is euphemistically termed, by means of drugs. Drugs for this purpose are not only openly sold and prescribed in almost every druggist's shop, but advertisements are spread abroad over all the land, of pills "which pregnant females are warned against taking, as they infallibly produce abortion"—this thin cloak of disguise being the scant tribute of wickedness to morality. These pills, and other remedies of the same kind, are to be obtained not only at drug stores, but at the stores of country merchants. The use of these dangerous drugs is common among all classes. The wealthy and fashionable seek to confine their families to fashionable proportions; the poor, from motives of economy, also desire to limit the number of their offspring. There can be no doubt that the evil is eating into the vitals of the country; and men of right feeling and sound morality are seeking for the means of checking its prevalence. In the paper just alluded to, some interesting observations are made on two abortives—ergot of rye and extract of cottonwood—the latter unknown in this country. As is well known, ergot exercises its peculiar powers over unstriped muscle—not in the uterus alone, but also on all unstriped muscle—notably over that in the walls of the smaller arteries. The condition of the arteries affected by ergot reacts on the heart, and the circulation is considerably interfered with; but its two most notable effects are diminution of bodily temperature and alteration in the pulse as shown by a sphygmographic tracing. The use of ergot will speedily reduce the temperature nearly to 96° Fahr.; and the pulse-wave, modified by the tension of the artery, and its tracing with a curiously flat apex, is unlike anything which does not betoken serious disease. These facts may be made useful in cases of criminal abortion coming under Medical investigation. The extract of cottonwood, introduced into practice in the Southern States as an emmenagogue, is very extensively used as an abortifacient. The degree of its efficacy is uncertain, but it has the reputation of exercising great power over the uterus in a singularly gentle manner. The only other unusual effect it seems to produce is great drowsiness. We commend the American press for fairly facing what is now the most crying evil in their country, and the greatest blot on their national escutcheon.

FROM ABROAD.—INQUIRY CONCERNING THE ALLEGED MISDEEDS OF GERMAN MILITARY SURGEONS—PHILADELPHIA MORTALITY RETURNS FOR 1870.

The Société de Médecine du Département de la Seine has undertaken the somewhat delicate task of investigating the complaints made against the German Military Surgeons for their conduct during the late war. This it believes to be but a reasonable step before taking into consideration the proposition that has been laid before it, of expelling all its German Members and Correspondents on account of the conduct in question. It has therefore named a Committee of seven members, which now—

"Makes a pressing appeal to all who are in a position to furnish it with exact and precise information concerning the conduct of the German Surgeons during the war, in the triple point of view of science, patients, and French Practitioners. The Committee, as the interpreter of the wishes of the Society, is desirous of acting only with the most loyal impartiality, and will therefore receive and employ for the purposes of its report all documents sent to it, whether these be favourable or unfavourable to the German Surgeons. The sole condition which it exacts is, that such documents shall be sincere and authentic, and be accompanied as far as possible by proofs and testimony, so that they may be sheltered from all contestation."

This sounds fair enough, but the difficulty of obtaining impartial statements from interested persons is proverbial; and when we consider the sufferings and indignities to which the French have been subjected, we can scarcely expect to find them in a frame of mind suitable for the pronouncing of judicial decisions on a matter in which they have so much personal feeling and interest. There can be no doubt that if any of the Surgeons attached to any of the invading armies have been really guilty of the base actions so freely attributed to them in the French journals, their names should receive an European publicity, in order that they may be visited by an indignation and contempt that certainly await them, not only in foreign countries, but also in their own. Amidst such a

large number of persons, it is possible that some individuals may have betrayed the honour of the Profession; but we feel convinced that, under a really searching investigation, they will be found few in number. But while we should quite approve of the Society stigmatising individuals who may have disgraced themselves and their Profession, surely it is on the wrong track altogether in searching out such evidence in order to furnish it with a seeming justification for the expulsion of its German members, who have had nothing whatever to do with the actions in question, and who, as men holding high and honourable positions, as proved by their very election, would doubtless be among the first to decry them.

As the accused are absent, they cannot be heard in self-defence, and mere uncontradicted and untested assertions will not carry weight unless supported by the most irrefragable testimony and received with cautious calmness. It is somewhat ominous, as respects this latter feature, that all communications upon the subject are requested to be sent to the office of the *Union Médicale*, the editor of which suffered much during the war, and has expressed himself in no doubting manner as to the iniquities of the German Surgeons. The terms in which he recommends the investigation, and the very enlarged scope he seeks to attribute to it, are, we fear, but indications of what he considers should be the verdict delivered.

"We most sincerely desire," he says, "that for the dignity of our science and the honour of our Profession this inquiry may terminate in negative results. Yes, it would be desirable that these shameful facts, of which vague reports are in circulation, may not prove true—depredations committed by Surgeons on public and private libraries and collections, the pillage of ambulances, the subtraction of apparatus, instruments, and pocket-cases, to the detriment of French Surgeons, bad treatment of and exactions practised on patients—of all those acts, in fact, which would for ever tarnish German Medicine. Yes, it would be desirable to learn that the German Universities and Medical Societies had protested against the barbarous warfare which has been carried on against us—the bombardment of our Hospitals, the expulsion by main force of the wretched patients from our asylums and hospices, the burning of our towns, and the contempt of men and things protected by the Geneva cross and banner. On these conditions alone can French Surgeons, the compatriots of the pure and humane glories of Military Medicine, the compatriots of Paré, of Larrey, of Desgenettes, and of Percy, say to the Surgeons of Germany, 'You have not disgraced either science, humanity, or the Profession. You are still our *confrères*. Welcome again to our hospitable hearths, and resume your places in our scientific societies.' If not, no."

In a recent paper on "Bills of Mortality," in the *New York Medical Record*, Professor Dickson, of Philadelphia, after some interesting observations upon the advantages and defects of registration returns, gives some account of those for Philadelphia (which he says are among the most complete of any American city) for 1870. In that year the deaths amounted to 16,750 in a population of 670,000—*i.e.*, 1 in 40—being 1964, or 13·20 per cent., in excess of those returned for 1869. The average of the last ten years has been 15,706. The excess of births over deaths was only 444, while in 1861 it was 2803, the only explanation which is suggested for this enormous difference being remissness in registering births. As almost everywhere else, the proportion of *infantile mortality* was frightful, 7432 (or nearly one-half) of the deaths taking place under 5 years of age. The great bulk of this excess took place during the hot months, *cholera infantum* carrying off 1002. A curious fact is recorded respecting *relapsing fever*—viz., its very great fatality in the coloured races. Of 490 cases admitted into the Municipal Hospital, 246 were whites, of whom only 4, or 1 in 60½, died; while 244 were coloured, of whom 62, or 1 in 3⅞, died. "It is not easy to explain this prodigious difference. Negroes do not die thus of yellow fever, scarlatina, or diphtheria." At first the disease was supposed to exist only from importation, but Dr. Parry has succeeded in showing that it has an independent origin in Philadelphia. He also proves that it does not arise from destitution, as it has been assumed to do in Europe. Dr. Goodman "is confident that no less than 5000 cases occurred in Philadelphia during the year ending September, 1870, with 200 deaths—*i.e.*, 1 in 25. The prevalence of such an epidemic involves untold misery, suffering, and destitution among a class little able to bear them." *Phthisis pulmonalis*, as in all other places, heads the mortality list; and Dr. Dickson observes that it is remarkable how little the ratio, either to population or to absolute number of deaths, varies from year to year, whatever capricious changes may occur in the various seasons. For the last ten years its average proportion to population has been about 1 in 335. The average proportion to absolute number of deaths, during the decennium, has been one in 7⅛. "Phthisis had been increasingly fatal for a considerable course of years up to 1864; thence, until 1870, we mark a slight decrease. I have before me the records of consumption in an unbroken series from 1848 inclusive. These statistics do not accord with the general belief that the disease has become either less frequent or more curable than in times past. It is to be feared that the Profession has indulged too sanguine expectations, on the one hand, from certain supposed specifics, and, on the other, from the unduly eulogised improvements in our general therapeutics." Of *scarlatina* 956 died, this being, as Dr. Dickson well observes, "foremost among the *opprobria medicorum*. Thirty deaths from cholera have given rise to more panic, and afforded occasion for more fine writing and ingenious special pleading than the hundreds carried off every year by our more familiar and tenacious disorders. To these we submit with true Mahomedan passiveness and acquiescence." Usually, *pneumonia* is second on the list after phthisis. In 1870 it stands first, owing to the great prevalence of *cholera infantum* and scarlatina, and caused 811 deaths. The average number of deaths during fourteen years has been 715.

"It is curious to observe," Dr. Dickson says, "how little special notice is taken of this large mortality. In the comments upon the detailed tables which always accompany them, we shall never fail to find remarks made upon items comparatively unimportant and insignificant—apoplexy, croup, hooping-cough, measles, hernia, etc.—but not a word of this constant cause of the greatest number of deaths next to consumption.

"I have elsewhere endeavoured to attract the attention of my brother Practitioners to this not unimportant topic. In all our systematic works on Medicine, pneumonia is treated of as one of the most curable and, indeed, self-subsiding of maladies. It is, indeed, the chosen theme of the Homœopathist, Expectant Medicine, and the 'Restorative System.' On the contrary, taking a wide view of its prevalence and danger in all temperate climes, I have found it to be among the most fatal of human diseases, giving rise to a mortality of not less than 1 in 5 of the sick, as is shown by most extensive statistics gathered from all accessible and authentic sources, to the amount of fully 100,000 examples, in tables quoted. This is the average result of the details communicated from Hospitals and private practice, in war and in peace, among soldiers and civilians, rich and poor, in cities, country places, barracks, and field service."

THE HAMPSTEAD HOSPITAL INQUIRY.

TWENTY-SECOND DAY.

THIS inquiry was resumed on Thursday, October 19. The Local Government Boards Commissioners, Mr. Henley and Dr. Buchanan, presided. Mr. Montagu Williams and Mr. John Humphreys represented the managers; and Mr. Collins, with whom was Mr. Bucknill, represented "the complaints" in the *Times*.

It was announced by Mr. Williams that the late night superintendent, Mrs. Winstanley, and the under-nurse Haynes had disappeared from their lodgings, and could not be found.

Thomas Rose, the under-cook, was cross-examined. He deposed to the excellency and sufficiency of the food. But he said the best joints were served to the acute wards by the order of Dr. Grieve. Sometimes "clods" and "stickings" were served up on "beef days" to the convalescents, and

this occurred about once a month. There was no mention of "clods" and "stickings" in the tenders, and the witness was questioned at some length as to how these pieces came in; but he could give no explanation. The Australian meat, he said, was made into a stew, and was served up to the general staff of the Hospital.

Sarah Daly, a nurse, contradicted the statements made on the other side as to insufficiency of drink and the bad quality of food. Only delirious patients, she said, were tied down. She contradicted the statements as to the scant supply of linen, the filth and vermin, and the want of nurses.

Mr. Rutherglen, the second clerk, was here recalled, and cross-examined by Mr. Collins on the minute-book of the Hospital Committee. The witness was particularly questioned respecting the occurrences when the two senior Assistant Medical Officers, Mr. Greaves and Mr. Kynaston, received notice of dismissal, and he maintained that the account given by Mr. Wyatt as to the notice being given to the two seniors for particular reasons in respect to their conduct, and laid to the reduction of the staff at the desire of some on the Committee, was in strict fact.

Re-examined by Mr. Humphreys, the witness said that the dismissed Assistant Medical Officers made no complaint whatever to the Committee; all the inquiry they desired to have was as to the charges they thought Dr. Grieve had preferred against them.

The next witness was John Matthews, the chief cook. He asserted the excellent sufficiency of the provisions, and said that "clods" and "stickings" were not received, and that the inferior parts of beef were only used to make beef-tea. He said that the meat was often cooked so soon after killing that there was not time for it to become tender.

Twenty-third Day.

On Friday, October 20, the Chief Commissioner said that he trusted the inquiry might be concluded by the following Friday.

Sarah Ettery, a nurse, was examined. She deposed to the goodness of the food and the sufficiency of supplies. She gave evidence regarding the dead body left in the bath-room, and she said it remained there longer than it would have done, because, from, its being Sunday morning, the man who should have supplied the shroud was rather late. She declared that she had not stopped the patients' stimulants at any time, and the patients got all they were ordered. Everything she had applied for to Dr. Grieve she obtained, and she certainly never knew of Dr. Grieve treating any patient with harshness. One patient had shown her a damp sheet he had got, and she gave him a dry one for it, and she might have said it was "scandalons"; but the patients sometimes helped themselves to sheets while she was absent, and she supposed this one was thus obtained. The witness declared that she always had arrowroot and a sufficiency of stores; and having regard to the numbers admitted, and the pressure on the resources of the Hospital, everything that could be done was done for the benefit of the patients.

Emma Weaver and Susan Shufflebotham, nurses, gave similar testimony. The latter said it was in her ward that the man died whose body was left in the bath-room, and she said it was so left because there was not a shroud. She removed the body from the ward to the bath-room herself, and laid it in the bath-room on the bed on which the man had slept. When patients died in the night, the beds were screened, and the bodies removed early in the morning.

By Dr. Buchanan: She took the dead body out of the ward because it smelt so strongly; and, though it was not her duty to remove it, she took it out for the comfort of the patients.

Manoah Walker, who had been a patient and was now coachman to the institution, was examined. He stated that the treatment he had received was kind and considerate.

Twenty-fourth Day.

On Monday the evidence of patients in favour of the management of the Hospital was commenced. We give the evidence of one witness *in extenso* as a sample.

James Salmon, a cabman, of Drummond-street, Euston-square, who stated that he had been a butcher before following his present calling, was called, and examined by Mr. Humphreys He said he went into the Hospital on May 9, and was discharged on June 2. He was tied down when he first went, but he was not hurt by that, and it was necessary in his case, for he got out of bed and raced about the ward. He deposed to there being sufficient of good food, both when he was in the acute stage and in the convalescent stage. The beef was once in the way a little tough, but in general the meat was good. The bread and butter were excellent. The linen was clean in all parts of the Hospital, as he saw by going in various wards; and every morning the nurse used to ask if anyone wanted a clean shirt or sheet. There was no cause whatever for complaining of anything.

In reply to the Commissioners, the witness (who was a respectable man of his class, and seemed in excellent health) said the beef given was sometimes one part of the animal and sometimes another. He had had "chuck," a piece of the "sticking part," a piece of sirloin, or a piece of the "clod" part. He had about five or six onnces of cooked meat, at least.

Questioned by Dr. Buchanan, the witness said he was not delirious in the daytime, but only in the night. He said that he saw no one who complained of suffering from thirst unattended to. He acted as a convalescent help, and sat up nine nights, and there were then quite sufficient supplies of milk and beef-tea; and very often milk and beef-tea were left over in the morning. There were generally not many acute cases in a ward at a time—some ten or twelve—and the other patients, though not quite well enough to go to the dormitories (convalescent wards), were able to help themselves. He was not a "nurse's favourite"; he gave no "tips." Regarding the changing of the beds, he said a fresh bed was always served out in lieu of one on which a patient had died, and he could say that clean sheets were on the beds for fresh patients; and the same course was adopted when a patient came into the convalescent wards from other wards. The towels, he said, he knew were changed every morning, for he changed them himself. He described some of the convalescents as being most unwilling to wash themselves, and as being disinclined to bathe even when ordered. In respect to the towels having vermin, the witness said he had seen them on one or two occasions, and the towels were then at once removed. This was in the convalescent ward; and then at once a search was made among the patients to discover who were the patients so afflicted. When they were found, means were at once taken to cleanse them. The potatoes were generally good, and the patients were told that if they had a bad "tatur," they could have a good one for it.

The witness was cross-examined by Mr. Bucknill, who, in reference to the boy Croake, a patient called early in the inquiry, wished to elicit the facts connected with that youth sleeping in his clothes in the convalescent ward, to which he said he was necessitated by there being no clothes for him. The witness said the boy did get into bed with his clothes on, and cover himself with the bed-clothes; but he was not necessitated to do that, for he had served out to him a white suit. In regard to the bath-room being sometimes in a "sloppy state," whenever this was the case it was caused by the dirty habits of the patients themselves. He had heard no complaints of any sort in the Hospital in regard to the treatment, food, and nursing. Asked how he had been searched out to give evidence, he said he had read the complaints in the newspapers, and he drove there in his cab. The only person he saw was one of the wardsmen, who said to him—"Well, we have not killed you," and witness said—"No, just the reverse;" and then told the officer that he was desirous of bearing testimony to the excellent treatment he had seen in the Hospital. Questioned as to his experience as a butcher, he was shown the tender for meat, and asked if a butcher would be justified in sending in "clods" or "stickings" under that tender," and the witness, while candidly owning that neither "clods" nor "stickings" would come in under the tender, yet a butcher, he said, would, under the contract, "try to shove one in now and then."

By the Commissioner: He only once saw "clods" and "stickings" brought into the Hospital by the butcher. There was not the least difficulty in the way of men drying the floor of the bath-room if they had felt so disposed, and the bath could have been emptied at once by anyone who felt inclined to empty it, even if the pipes were out of order.

Re-examined by Mr. Hammond, in the absence of counsel (who were at the Old Bailey), the witness said that when he was delirious he got up at night and washed his bedstead, as if he had been washing his cab, and he used the sheets as reins, as if driving. It was because he knew the statements made at the opening of the inquiry were false that he had come to give his evidence.

John Thomas Slater, railway waggon examiner; Henry Ripsher, of the goods department of the London and North-Western Railway Company; John Peake, a butcher; Stephen Wakefield, a bricklayer's labourer; Harriet Boyce, who went into the Hospital to watch over her three children who were there; Charles Alderson, an artizan; James Dix, a packer; and A. F. Gibble, a tailor, all gave evidence as to the general excellence of the arrangements and of the treatment they received in the Hospital.

TWENTY-FIFTH DAY.

Similar evidence was given by Ellen Glanders; W. J. Ansell, a packer; Flowers Allpress, a saddler; Charles Cripps, a publican, who had sent his five children to the Hospital; Ellen Cripps, a girl of 10; Elizabeth Bowen, a cook; Mr. C. H. Good, a surveyor; Mrs. Swann, the mother of a child who was in the Hospital, which child she said had come out with a "corporation," which was "pure fat"; George Tate, an archery maker; and James Bray, a butcher. These all gave evidence as to having had sufficient food and drink of good quality, of the general cleanliness of the linen, of the sufficiency of nurses and attendants, and of the general good character of the arrangements. At the conclusion of the day the Chief Commissioner said that he and his colleague did not require any more evidence of this character.

TWENTY-SIXTH DAY.

Messrs. George Edward Douglas, Governor of St. Marylebone Workhouse; Mr George Soper, a relieving officer of St. Saviour's District, St. Marylebone; Mr. Metchin, a relieving officer of the Second District of St. Mary's, Islington; Mr. Fussell and Mr. Judge, relieving officers of Shoreditch, were examined in behalf of the Management. They deposed to the large numbers of patients sent to the Hospital during the epidemic, to the filthy condition in which many of them were, their bodies and clothes being infested with vermin, and to the miserable overcrowded and dirty houses whence they were taken. Mr. Douglas gave some evidence with regard to the tenders and contracts of the Hospital. He said he had had considerable experience in regard to contracts, and the prices put for the articles in these contracts were for the best articles. At St. Marylebone the guardians were in the habit of looking more to the character of the persons tendering than to the lowest prices, and thus paid higher prices than many parishes might pay; but the prices paid at Hampstead were in many cases higher than those given by his guardians. The meat in summer would be hard from being fresh killed.

By the Chief Commissioner: The breast of mutton should not have been sent in under the tender, nor "stickings" of beef. "Clods" formed a good part of meat, but "stickings" were only fit for making beef-tea. The average waste from boiling mutton, taking the whole carcase, was 37 to 40 per cent., including freeing from bone, cooking, and serving out.

Questioned by Dr. Buchanan in reference to the prevalence of vermin in the Hospital, he said: Some of the persons taken into the workhouse were in a most fearful condition in regard to vermin. Some had led a wandering life in the parks, and it was then most difficult to cleanse them when the heads were sore. The first thought was always given to the Medical treatment of the patient, and from his experience he should hesitate before interfering with a head with a small-pox eruption out, whatever might be the condition of the head in regard to vermin. No nurse would apply anything to a sore head to kill vermin without the orders of a Medical officer. It was most difficult to keep wards free from these things when they once gained admittance. Some good specimens of the creatures could be seen any night in the casual wards.

Mr. Collinson Hall, milk contractor to the Hospital, was called and examined. He stated he served Guy's Hospital, St. Mary's Hospital, the Brompton Consumption Hospital, Caledonian Asylum, London Hospital, Bartholomew's, Christ's Hospital, the Foundling Hospital, Charing-cross Hospital, Deaf and Dumb Hospital, the Langham Hotel, and various other large hotels and many clubs. Only on one occasion had the milk been returned from Hampstead, and that was when it "turned off," owing to a thunderstorm, and fresh was immediately sent. It was tested generally before being sent out, and it was sent as received from the country.

The other witnesses called on this occasion were Mr. Autrey, a relieving officer of Paddington; Mr. F. Moon, a relieving officer of St. Pancras (from which parish 2000 small-pox patients were sent); Mr. T. A. Lester, a relieving officer of Islington; Mr. Richard Ody, a relieving officer of St. George's, Hanover-square; and Mr. Overton, a relieving officer of St. Marylebone. All these gave like testimony regarding the reported good treatment of the patients; and even those sent from the rich districts—some of them gentleman's servants, "used to good living"—had made no complaint of having suffered in the Hospital from anything.

The contractors for butter, eggs, and potatoes were called and gave evidence showing that they had been called upon by their contracts to supply good food at fair prices, and they declared they had done so.

John Jones, the wardsman, was then examined, and the Court adjourned.

THE VACCINATION ACT, 1871.

THE following circular letter has been issued by the Local Government Board in reference to certain portions of the Vaccination Act, 1871:—

Local Government Board, Whitehall, London, S.W.,
October 17, 1871.

Sir,—1. I am directed by the Local Government Board to forward for the consideration of the guardians a copy of the Act 34 and 35 Vic., c. 98, which was passed in the last session of Parliament to amend the Vaccination Act of 1867.

2. The Board desire me to direct the attention of the guardians to the 5th Section of the Act, which requires them to appoint and pay one or more Vaccination Officers. This provision will not come into compulsory operation until January 1 next (see Section 2 of the Act); but, as the duties of those officers should commence from that date, and as the guardians have at present the power to make such appointments, under Section 28 of the Act of 1867, it is desirable that the matter should be proceeded with at once.

3. The new Act will not interfere with any appointments of paid Vaccination Officers which have already been made by the guardians, under the provisions of the Act of 1867, and those appointments will remain in force until the guardians put an end to them. In view, however, of the new duties imposed on Vaccination Officers by the Act of 1871, the terms and conditions of their appointments will require reconsideration; and in some instances it will be necessary for the guardians to consider whether any and what further appointments may be required for carrying into effect the intentions of the present Act. On the other hand, where the guardians have not already made any such appointments, they will be called upon to consider the question anew, with reference to the fresh obligations now imposed upon them.

4. The first question for the consideration of the guardians will be, whether one officer should act for the whole of the area within the jurisdiction of the guardians, or whether that area should be divided into districts, and an officer appointed for each district. In the latter case, the guardians will observe that any such district which they may form must (unless the Local Government Board otherwise direct) coincide either with a vaccination district or districts formed under the Act of 1867, or with a district or districts of a registrar of births and deaths.

5. It will be the duty of every Vaccination Officer so appointed to see to the execution of the Vaccination Acts, with the view of securing the vaccination of every child who is not unfit for it, or is not insusceptible of it. For this purpose it is provided by Section 8 of the Act, that every Registrar of Births and Deaths shall transmit to the Vaccination Officer a monthly return of births and of the deaths of infants under twelve months of age. The obligation to furnish these returns will not arise until after January 1 next (see Section 2 of the Act); and in the meanwhile the registrars will receive the necessary forms for making the returns, with such instructions as may be given them by the Registrar-General of Births and Deaths in England, with the approval of the Local Government Board.

6. When the new Act shall have come into full operation, the registrars will no longer be required to submit to the guardians the half-yearly lists referred to in Section 27 of the Act of 1867; and the only duties which it will then be incumbent on them to discharge under the Vaccination Acts will be—(1) to give to the parents or other persons the notices contemplated by Section 15 of the Act 1867; (2) to keep the record of such notices, which is required by Section 24 of that Act; and (3) to transmit to the Vaccination Officers the monthly returns above referred to. For the performance of these duties, each registrar will be entitled to receive the following remuneration:—namely, under Section 24 of the Act of 1867, a fee of one penny in respect of every child whose birth he shall have registered, and in respect of whom he shall have given the required notice; and under Section 8 of the Act of 1871, a fee of twopence for every birth or death entered in the return referred to in that Section, which fee is to be paid to him whether he is or is not also the Vaccination Officer. These fees will be payable to him by the guardians in the same manner as the fees were formerly payable under Section 25 of the Act of 1867.

7. As Section 27 of the Act of 1867 will be repealed on January 1 next, it will devolve upon the Vaccination Officer, acting under the instructions which will be issued by the Local Government Board, and under the directions of the guardians, to examine the lists of births and deaths supplied to him by the registrar, and in those cases in which, at the expiration of the time allowed by the law, certificates of successful vaccination or of postponement of vaccination, or of insusceptibility to vaccination, or information of the death of the child shall not have been received, to take such steps as his instructions shall point out for insuring compliance with the law. The Vaccination Officer will be required to keep such registers, and other records of his proceedings, as the Local Government Board shall direct; and the Board will shortly issue forms for this purpose, under Section 5 of the new Act.

8. Under Sections 16 and 29 of the Act of 1867, the parent or other person is liable to a penalty, who shall neglect to have the child vaccinated within three months after its birth, or after receiving its custody, or in certain cases within the further period limited by Section 12 of the Act, and shall not render a reasonable excuse for such neglect. This offence is complete at the end of the three months or other period, and as, therefore, it can only be committed once, only one penalty can be inflicted on account of it. (See Pilcher *v.* Stafford, 33 L. J., new series M. C. 113; 9 L. T., new series 759.) Under Section 31 of the same Act, however, an order for the vaccination of a child under 14 years of age may be made by a Justice of the Peace if he see fit, upon the application of the Vaccination Officer, and such order may be renewed or repeated, again and again, as often as may be requisite, until the vaccination of the child is effected. (See Allen *v.* Worthy, 39 L. J., new series M. C. 36; 21 L. T., new series 665; 5 L. R. 5 Q. B., 163.) It is important to hear in mind this distinction between the proceedings under Section 29 and those under Section 31.

9. The certificates of unfitness and of insusceptibility, which under the Act of 1867 were to be given to the parents, but were not required to be transmitted either to the registrars or to the guardians, must now (under Section 7 of the present Act), as well as the certificates of successful vaccination, be transmitted to the Vaccination Officers, and be registered by them. The period for the transmission of any of these certificates is, also by Section 7, limited to seven days from the examination on which it is founded; and it is of great importance for the avoidance of unnecessary trouble to parents and others in carrying out the Act, that this limitation

should be noted, and the direction of the law strictly observed by those on whom the transmission of the certificates devolves. When the certificate is one of unfitness, the vaccination is merely postponed; when the certificate is one of insusceptibility to vaccination, or of successful vaccination, or where the child has already had the small-pox, no proceedings will be required to be taken. It may, however, happen that the child has been successfully vaccinated, although the certificate may not have been transmitted, as the law requires, to the Vaccination Officer; and it is provided by Section 11 of the present Act, that in such a case the person erroneously charged with neglecting to procure the vaccination, may, if the facts require it, be convicted of the offence of neglecting to transmit the certificate.

10. With respect to proceedings to be taken under Section 31 of the Act of 1867, some important facilities are introduced by Section 11 of the present Act, which provides that such proceedings may be prosecuted with respect to any child who is not within the union or parish, if either the child or its parent was within the union or parish at the time of the information; and further, that the parent who fails to produce the child when summoned shall be liable to a penalty not exceeding twenty shillings.

11. The Board do not consider it necessary at present to do more than call the attention of the guardians generally to the other provisions of the Act which relate to proceedings against offenders, as well as to those provisions in Sections 7, 9, 10, 12, and 13, which have reference to Public Vaccinators, Medical Practitioners, and Poor-law Medical Officers. The Board request, however, that the guardians will direct the attention of their Medical Officers and Public Vaccinators to those provisions. The fees recoverable in certain circumstances under Section 9 should be collected, as it seems to the Board, by the collector of the guardians, if there be one; but the guardians may, if they think fit, appoint their Vaccination Officers as collectors for this purpose, under the General Orders of the Poor-law Board of October 7, 1865, and November 27, 1866.

12. In conclusion, the Board desire to refer to the 16th Section of the Act, which substitutes the Local Government Board for the Poor-law Board and for the Lords of her Majesty's Privy Council, respectively. The Act under which the Local Government Board is established (34 and 35 Vic., c. 70), transfers to that Board the powers and duties vested in or imposed on her Majesty's Privy Council by the enactments specified in the schedule, amongst which are the 30 and 31 Vic., c. 84 ("The Vaccination Act, 1867"), and any Acts amending it. I am further to refer to the extension given by Sections 14 and 15 of the present Act, to the powers of the Local Government Board, in substitution for the Poor-law Board, with respect to vaccination contracts and forms of certificates; and also to the duty imposed on the Board by Section 5, of framing, providing, and distributing appropriate books and forms for the use of Vaccination Officers, Public Vaccinators, and Medical Practitioners. The Board propose to communicate with the Guardians again, on the subject of these books and forms.

I am, Sir,
Your obedient servant,
(Signed) JOHN LAMBERT,
Secretary.

To the Clerk to the Guardians.

REVIEWS.

Animal Plagues: Their History, Nature, and Prevention. By GEORGE FLEMING, F.R.G.S. etc. London: Chapman and Hall. 1871. Pp. 548.

THIS book has occupied a place on the table for a much more considerable time than we had inteuded, awaiting notice in our columns. More explanation is scarcely needed than to say that it aspires to present the condensed histories of all pestilences among the lower animals, in consecutive order, from the dim records of earliest times down to the present century. In pursuance of this truly gigantic task all sorts of sources are utilised, and a vast accumulation of material is brought together, of which, especially when the record dates from early centuries, the precise value in a scientific sense is often dependent on the style in which a poet, historian, Physician, or philosopher has, perhaps by chance, alluded to some legendary or contemporaneous pest. The author launches his venture thus:—

"No attempt has yet been made in this country to trace the history of these diseases, or to afford an indication of the sources from whence such a history was to be derived. It is, therefore, with diffidence that I venture to offer this history of British and foreign epizoötics from the earliest recorded events of that kind up to recent times. For Professional reasons my opportunities for research have been few, else this contribution to the literature of the subject would undoubtedly have claimed more pretensions to accuracy and completeness. Nevertheless, no pains have been spared to make it what I intended it should be. The collection of materials for such a work was no easy task, the references to animal diseases of a general character in the early ages being found only in books which treat also of other matters, and are often very rare."

The general arrangement adopted is that of distinct paragraphs, to each of which the year-date is prefixed, and so regularly down, through eight chapters, each representing some more or less defined epoch in the series of pestilences. To the ordinary reader few chapters are more interesting than the first; for in this, beginning with Ireland, where in B.C. 2048 the carcases of the giants "slain in war with Parthalani" bred a pestilence, and so on to Egypt, with the murrains, through Trojan plagues, Athenian records, Roman history, with Virgil's first wondrous description of the actual cattle plague, through stories of Huns, and prodigies of locusts, the record lands us in A.D. 400. This will give some idea of the *richesse* in matter, often most interesting, often mythical, frequently of doubtful value. What are we to do with this for example?—

"A.D. 314. In the reign of Constantine the Great, the large island of Cyprus was thirty-six years without rain. So great a famine ensued that all its animal inhabitants forsook it and fled."—*Petavius.*

Chapter II. (400 to 1500) illustrates well the science and art of Medicine as they existed in an age of mysterious phenomena and innumerable superstitiously regarded portents. Space fails, or we might quote many instances of singular character from these records. Respecting one of the most common portents, the "*signacula*," preceding or accompanying pestilences, we find an explanatory note at page 122, which is not up to our present knowledge on the subject. "Blood spots" and "blood rain," referred by Ehrenberg, in 1848, to the animal kingdom, and named "monas," have since then been the subject of monographs by Dr. Montagne, of Rouen, the Rev. M. J. Berkeley, and Dr. H. O. Stephens, of Bristol. The last-named cryptogamist, in 1853, in accordance almost entirely with the two former, gave a clear description of this curious growth, deciding conclusively that it is a true algoid, and that the carmine spots (*palmella prodigiosa*) which appear on articles of food, as even more than once, to the consternation of all, on the sacred wafer, should be distinguished from *palmella eruenta*, the colour of which is dull red, and the cells much smaller. While we write, a saucer of paste is before us, on the surface of which the algoid is exhibiting its blood-red spots. The particles transplanted from decaying meat grow readily, and the characteristic structure is not difficult of verification.

Entering upon the next period (Chapter III., 1500 to 1700), the author considers that we leave "a most unprofitable era for one pregnant with great results to the sciences in general, but especially to Medicine." The great revival of learning in the sixteenth century was not less favourable to veterinary than to human Medical art. In 1506 there reappeared the works of Diascorides; in 1525 those of Galen; and in 1526 those of Hippocrates. While we all acknowledge the extent to which early Medicine was indebted to the Arab Physicians, it is not so well-known that, in reference to one branch of the science—the diseases of horses—more attention seems to have been expended than perhaps upon any other. The maladies of the Arab horse were more fully recorded even than those of his rider.

Chapters IV. and V. are occupied largely with the supposed commencement of the cattle plague in 1733, and its gradual extension over the Continent of Europe. Quotations of much value are given regarding this disease, which is characterised as "a malignant fever"; and its invariable progressive advance from place to place is shown to have been by contagion. In 1745 the cattle plague appeared near the metropolis, spread through Essex, was sent (in two cows from a fair) to Berkshire, and by way of Hertfordshire to London itself, whence it soon overspread the entire kingdom. From 1745 to 1800 (Chapters VII. and VIII.) this terrible pest continues to occupy the most prominent place, and necessarily dwarfs a vast number of epizoötics—anthracoid, varioloid, foot and mouth disease, rot, influenzas, rabies, glanders, and others—several of which we feel are deserving of more space for details. At the last-mentioned date the work is brought to a close.

In each case the authorities are enumerated at the foot of the page, in a manner very admirably facilitating reference; and while, as regards the excellence of the matter, we cannot but be pleased with the *length* of certain quotations, they seem to us important enough to have taken the form of an appendix. We allude especially to Dr. Mortimer's Royal Society paper on Cattle Plague (9 pages), and Mr. Dossie's, on the same subject, from the "Memoirs of Agriculture" (49 pages). Doubtless difficulties of no ordinary kind will attend the continuation of this work into our century, but that the record should terminate at 1800 seems purely arbitrary, and it is to be hoped that the success of the present effort will encourage Mr. Fleming to deal with the wide and confused historical material of the last seven decades.

The subject of animal pestilences presents distinctive features of interest to the agriculturist and the pathologist; it is with the latter point of view that we, as Medical Practitioners, chiefly have to do. In turning over the records of morbid phenomena registered by such admirable observers as Fracastor, Lancisi, Heusinger, Ramazzini, Kanold, Ens, Haller, Darwin, and others, we are not surprised to find everywhere traces of

their genius; and, indeed, there is often a completeness about the details of their pictures, as compared with some vague and conflicting records of human plagues, which startles us. There is, at least, one advantage in the observation of disease among dumb animals—in so far, *i.e.*, as all the data must be objective; so that mental forces, apt to be wasted in weighing the relative value of a patient's own impressions, are here diverted into the channel of direct scrutiny and rigid inference.

These varied historical sketches form a mine for the inquirer into epidemic pathology, but we doubt if all the collected records, though they may assist the coming discoverer, will reveal to him the great mystery of *origin*. Innumerable events have been noted from the earliest ages as forerunners of pestilences, and a curious list might soon be made. Thus, we find more or less repeated mention of the following:—Comets, blood-rain, eclipses, clouds of dust (Philo), locusts, severe winters, earthquakes, famine, drought, wind tempests, rain and floods, hailstorms, hot summers, much snow, meteors, volcanic eruptions, caterpillars, leaf-eating insects, moist air, mould, corn-smut, mist, damp, stinking fogs (Hecker), and others. One leading idea, however, runs through the records of all great cattle epidemics—recognised from the earliest periods as their all-important source, frittered away from time to time by the speculations of some *doctrinaire*, to be reasserted by the stubborn fact of widely spreading death, the dominating feeling holds its own that contagion is the one known source. Is there, then, no historic time when variola ovina, cattle plague, skin disease, anthrax, or foot and mouth disease arose? Probably, no. Newman ridicules our doubt that human diseases are now arising. Small-pox began undoubtedly once, it *may* therefore be begotten afresh; but we may reply that the race of man did so too, and yet we do not find here and there new independent formations of human beings in this our day. But do our epidemics originate in those of lower animals, or *vice versâ?* Seemingly, no; for the rare and doubtful instances of such supposed relations rather prove an opposite rule. Of course, we can only conceive of diseases as having once commenced; and a morbid mark upon a fossil of some long extinct species is, as to time, in an epoch modern compared with the ages which must have rolled over shapeless masses of eozoon. That pestilences originated, though very remotely, we may well believe, and their known alterations of type in modern times support the conjecture; but for all practical purposes it is of the first importance to feel that the infected animal and its *reliques* or emanations have been, and are still, the invariable sources of danger and death. As the learned author of "Considerations concerning the Distemper which spreads itself among the Horned Cattle" in 1749, well remarked, "Nothing in my humble opinion did so much to contribute to the spreading of this terrible distemper at its first breaking out as *the belief that it was not contagious*, and the expectation of an effectual remedy for it."

Again, as to the treatment of diseases of an epidemic type, the impression produced in our mind by these histories may be summed up in two words—isolation, and disinfection. No timidity, begotten of the reverence which hedges the human patient, has prevented a trial of any conceivable remedy, however grotesque, on the beast, but all evidence of curative action is limited to the most common-sense procedure—in fact, to proper nursing and diet. As to the main point, there is no doubt; to stay the plague, the Physician can only stand between the diseased and the healthy—get rid of the former, and isolate the latter. Disinfection with sulphur and bitumen was enjoined by Vegetius, of Constantinople, in A.D. 400, "because these preserve other animals from the plague," and we have perhaps, after 1470 years' experience, no better advice to offer.

Contagion, then, whatever the remoter origin, has been the source proximate of cattle plagues in historic time; but while we have no positive knowledge of the poison conveyed, that so many of the above-mentioned antecedents have been such as would preserve, foster, and disseminate the lowest forms of organic life, may be taken to favour the so-called germ-theory. At all events, the gradual progress, *e.g.*, of true cattle plague, like that of cholera, to parts of a country uninfected, however bad the hygienic conditions may have been for a long period, speaks strongly against the mode of origin *de novo*. In the same direction would appear to argue the use, from the earliest ages, as means of arresting the pestilence, of fire, sulphur, entire and deep burial of the carcases, or the free employment of the pole-axe. Thus only can Virgil's herdsman—

> "With speedy knife the fault coerce, ere yet
> The dire disease creeps through the careless flock."

We find, however, that space will scarcely permit us to add to these few of the thoughts which crowd around Mr. Fleming's book. The contrast is strange between the vigorous legislation indulged in when *cattle* plagues are in question, no subject liberty being awkwardly infringed, and the general lack of interest in a matter so important to the political economist. As Mr. Bentinck, at 10.40 p.m., on June 2 last, was making this very remark in the House of Commons, it was observed that there were only twenty-one members present. Excellent speeches by Messrs. Read, Jacob Bright, and Forster had not sufficient attractive power, and twice was the House counted out, on the Contagious Diseases (Animals) Act. And yet corn-culture, at home, is yielding slowly but surely, as we increasingly import the competing crops of countries a shade better adapted than our own for cheap surplus production, to *grazing*. Again, "the losses from only two exotic bovine maladies ("contagious pleuro-pneumonia," and the "foot and mouth disease") have been estimated to amount, during the thirty years that have elapsed since our ports were thrown open to foreign cattle, to 5,549,780 head, roughly valued at £83,616,854. The late invasion of 'cattle plague,' which was suppressed within two years of its introduction, has been calculated to have caused a money loss of from five to eight millions of pounds." A vegetarian philosopher tell us that we are all under a mistake; that neither the maximum individual health nor the highest development of civilisation is compatible with the slaughter of animals for food. We cannot, at the moment, either refute his arguments, or give up our sirloin. Be it as it may, Medicine waits not till people are what they ought to be, nor till its own remedial agencies are theoretically perfect. The suffering animals are there, and it is our present duty to relieve their pains and stay those plagues which the refined intellect of the poet has felt to be truly undergone for our sake. Pathological science may justly rejoice, however, at the realisation, wonderful in this, our so-called "practical" country, of the new Brownian Institution for the study of diseases of domestic animals. It is now established at Battersea, with Dr. Burdon-Sanderson approved as its first Professor by the University of London, and something like £30,000 to support it. We cannot but repeat the question asked by Dr. W. Budd in 1869, referring to the grants for investigation of cattle plague: "Are the lives of bullocks more sacred than the lives of men, and sheep more precious than children?" In face of the above foundation we really feel hopeful, and may be pardoned for dreaming that some similar phenomena may take place in the matter of human pathology, thus contributing still more directly to the good of man's estate.

A Descriptive Catalogue of the Calculi and other Animal Concretions contained in the Museum of the Royal College of Surgeons of England. By THOMAS TAYLOR, F.R.C.S. 4to. London: Taylor and Francis. Pp. 87.

THE Profession, especially those members of it who avail themselves of the opportunity for study of the contents of the invaluable Museum of the College of Surgeons, will be much pleased with this additional catalogue—or, rather, supplement—to those already published by the same author, under the direction of the Council, to whom great credit is due for so carefully selecting the best authorities on each particular subject—such men as Owen, Paget, Quekett, Morris, Cobbold, Flower, Stanley, Bader, Erasmus Wilson, and Taylor. The last-named gentleman was the author of Part I. of "Human Urinary Calculi"; this was followed, in 1845, by Part II., "Calculi from the Biliary Organs, Stomach, and Intestines of Man, and Calculi from the Lower Animals." Since the last publication—twenty-six years ago—356 specimens from the urinary tract of man have been added; making, with the former, a total of 1005.

Of calculi of infrequent occurrence from the urinary tract of man, Mr. Taylor states that the most remarkable additions to the Museum are the half of a xanthic oxide calculus extracted from the bladder of an Indian child by Mr. George Coles, of Her Majesty's service, and presented by the late Mr. Bransby Cooper, and a calculus consisting chiefly of carbonate of lime taken from the bladder of a man, and presented by Mr. William Bird, of York. Of the latter species of calculus the collection formerly possessed no specimen, although, on account of its great rarity, drawings of some carbonate of lime calculi in the possession of Mr. R. Smith, of Bristol, were published in a former volume.

To the Medical Officers of the Queen's Indian Service the College is indebted for a large collection, of considerable interest as illustrating the effect which the diet and habits of

living of the natives have upon the composition of these concretions, and also because, in almost every instance, they are accompanied by a statement of the age and sex of the individual from whom they were taken, the duration of the malady, and the progress and result of the operation. Chief amongst these contributors is Mr. H. C. Cutcliffe, F.R.C.S., whose donations are numerous, illustrating also his great success, as we find eighty-two recoveries and only four deaths; in twelve cases the result, perhaps from forgetfulness, is not stated. With regard to lithotrity, this gentleman informs us that, notwithstanding the most favourable cases, the operation is objected to by the natives. The other Indian donors are Dr. W. B. Beatson and Messrs. W. E. Allen, T. Atchison, G. Cole, and J. G. Pilcher. The members of the Council of the College, past and present, are important contributors. Mr. Hodgson's collection is large and valuable. Mr. George Cooper, F.R.C.S., the late Master of the Society of Apothecaries, has, amongst other specimens, sent a large uric acid calculus, accompanied with a curious history—that it was "cut from James Clitherow, of Boston House, August 13, 1680, then aged 62." The following curious statement of the expenses attending the operation was taken from his books, and sent with the stone:—"To £150, paid by agreement to Monsieur Callot, y^e^ Frenchman, for cutting me of the stone; to Apothecary, Surgeon, and nurse that attended me, £26 10s. 6d.; for rent of my lodgings in Hatton-garden, and diet there, £28 15s. 2d.; for a pallet bed, and y^e^ furniture of it then used, £6 17s.; for charges of removing to and from London, £1 10s.; making a total of £213 12s. 8d."

The list in the Catalogue is divided into nine series, viz.:—(1) Calculi of which the nucleus or primary deposit consists of Uric Acid; (2) Calculi of which the nucleus or primary deposit consists of Urate of Ammonia; (3) Calculi of which the nucleus or primary deposit consists of Oxalate of Lime; (4) Calculi of Cystic Oxide; (5) Xanthic Oxide; (6) Phosphate of Lime; (7) Phosphate of Magnesia and Ammonia; (8) Phosphate of Lime and Phosphate of Magnesia and Ammonia mixed in various proportions (the fusible calculus of Wollaston); and (9) Calculi consisting of Carbonate of Lime.

From the following table it will be seen that uric acid forms the largest proportion of all simple calculi; while, on the other hand, in those consisting of several layers (alternating calculi) it constitutes the nucleus in the smallest proportion, or, in other words, it is less frequently followed by a secondary deposit than either urate of ammonia or oxalate of lime, the relative numbers being—uric acid, 105; urate of ammonia, 251; oxalate of lime, 148.

	Simple.	Two layers.	Three layers.	Four or more layers.
Uric acid . . .	277	68	36	1
Urate of ammonia .	22	160	75	16
Oxalate of lime .	90	118	21	9

Mr. Taylor does not consider it necessary in the work in question to make any change in the chemical nomenclature; the term "phosphate of lime" is therefore used, instead of "calcium" or "calcic phosphate."

The Catalogue is highly creditable to the author and to the Council of the College under whose auspices it has been produced.

La Calentura Roja. Por D. Ramon Hernandez Poggio, etc.

The Red Fever. By D. Ramon Hernandez Poggio. Large 8vo. Pp. 74. Madrid. 1871.

It is under this head and title that Dr. Poggio describes to us an affection variously spoken of as "dengue," "breakbone fever," "scarlatina *rheumatica*." It is the "dandy fever" of St. Thomas's, which has been called elsewhere "*la pantomima*." Once again we smile as we remember one of our dear colleagues who had the name fixed on him by the negroes of "Dandy Doctor," whilst practising in that island. He had been lifted on horseback, and ventured abroad to see his patients, while yet suffering and tormented by this complaint, affording much amusement at his expense. Its chronic and fleeting nature giving no opportunity for post-mortem examinations, little light has been shed on the pathogeny of the disorder, and much remains in its pathological relations that is cloudy and obscure. The character of this affection is essentially that of fever; but, as to the eruption, it varies exceedingly in its expression; and even its presence, as well as intensity, is unequal and uncertain. The same with regard to the pains. This disorder is felt as epidemic in America, as well as both the Indies. In England it occurs, if at all, unfrequently and sporadically, or at least obscurely. It has been described in Calcutta, by Dr. James Mellis, under the name of "inflammatory fever." It is the "*exanthesis rosalia arthrodynia*" of Dr. Cock, the "anomalous epidemic complaint" of Stedman (St. Thomas's), and is variously described by other writers as articular (or rheumatic), exanthematous (or eruptive) fever. During the years 1865-7 it occurred in Andalusia and other provinces of Spain, where it bore the name, bestowed upon it by the vulgar, of "*trancazo*"—literally, a blow by a bar, or stroke. Nor is this its first appearance in the Peninsula; in both Seville and Cadiz it was known between the years 1784-8, and was then called the "*piadosa*." It was seen, too, in Teneriffe in 1865. It has visited the Canaries, Cuba, and other Spanish dependencies. The present work is the reprint of a *mémoire* presented to the Royal Academy of Medicine, Madrid, in the year 1808, when the author was fresh from observation of the disease. More than any other man the knowing Physician will be apt to say "What's in a name?" However strange it may be to our ears, already, in the French African possessions, it is by the name of red fever that the disease is known. It is true that a French Physician, Dr. Fl. Thaly, has made protest against this. In his observations on the epidemic in Goree in 1865 (see *Archiv de Med. Navale*, 1866, vol. v., p. 57), he insists upon the fact that the blacks do not show a red eruption, but merely a certain want of uniformity in the natural colour of the skin, with unevenness of surface (from papules) to the touch. In a topographical notice of the Isle of Bourbon, the term "red fever" is also employed for this complaint by M. Dutrouleau (see his "Traité des Maladies des Européens dans les Pays Chauds," Paris, 1861, p. 50); and M. Barmer (*Archiv de Med. Navale*, vol. iv., p. 526), has mentioned it as the "red exotic fever." The description given in his "Science and Practice of Medicine" by Dr. Aitken is very good as far as it goes; but, as the Practitioner in foreign climes may desire a fuller account, we would bid him take note of the present production as likely to enrich his stores, and to make him more able to encounter the invasion of so troublesome and annoying an enemy as the "red fever" is shown to be.

NEW BOOKS, WITH SHORT CRITIQUES.

Asiatic Cholera in Bristol in 1866. By Wm. Budd, M.D., F.R.S.

*** There are few more instructive works on sanitary matters than is this history of cholera in Bristol in 1866. The cholera came and found a city singularly congenial for its ravages; but it also found those in authority ready prepared to oppose it. They had a well-organised staff of officials ready to deal with the disease, and, above all, they had a clear notion of what they had to do. Disinfection was their motto, and they carried it out thoroughly, with what good results let those who care to imitate their example under similar circumstances learn from Dr. Budd's pamphlet.

Some Simple Sanitary Precautions against Cholera and Diarrhœa; with Suggestions concerning Dietetic Treatment, especially with regard to Infants. By M. A. B. Lewis, Gower-street.

*** This little pamphlet deserves extensive circulation, abounding, as it does, in good sensible and practical information. The influence of diet on the diarrhœa of infants is very little known to the public. M. A. B. gives excellent advice on this point. It would be well for mothers in general to become acquainted with it. The *brochure* costs but 3d., or, for distribution, may be obtained at 2s. a dozen.

PROVINCIAL CORRESPONDENCE.

LIVERPOOL.

October 23.

We had scarcely begun to breathe freely after the recent epidemic of small-pox when we are attacked by another disease. Relapsing fever has again made its appearance, and is spreading rapidly in the densely crowded and dirty streets in the northern parts of the town. It commenced in the same parts as during last year—viz., Milton, Addison, and the adjacent streets. In bringing this matter before the Health Committee on Thursday, the 19th inst., and asking that carbolic acid might be freely used in the cellars of unoccupied houses, Dr. Trench said that something more potent than inspection was required for them, and that, with law or without law, he trusted the Committee would find some means to assist the owners to

close them altogether. The indescribable filth that is allowed to accumulate and decompose in these places, immediately over which hundreds of human beings are crowded, renders it a matter of surprise, not that we have so many epidemics, but that we are ever free from them.

The question of the appointment of a public analyst, which has for some time been under the consideration of the Health Committee, is deferred until the meeting of the new Committee at the commencement of the municipal year.

GENERAL CORRESPONDENCE.

ON THE FOOD OF THE ARMY CORPS DURING THE RECENT MANŒUVRES.

[To the Editor of the Medical Times and Gazette.]

SIR,—In continuation of my former letter on this subject, I beg permission to make a few remarks on Yateman's beef-sausage, Aberdeen soup, Australian mutton, salt pork, and commissariat biscuit, the materials on which the life of the army corps was sustained during the second and more active half of the campaign. Everybody has heard of the famous "Erbswürst," or pea-sausage, which was so largely used by the German army. It has the great advantage of containing a good proportion of vegetable matter, and of being good to eat either hot or cold, or in the form of soup. Yateman's beef-sausage was judged by the men to be fit to eat only in the cold state. It contains no vegetables, but a good deal of seasoning, and, unless cut into thin slices and eaten with plenty of bread, is likely to give the stomach a little trouble. It is a serviceable article of food, but for these reasons inferior to the Prussian invention. Half a pound of it looks but a very moderate supply of animal food for twenty-four hours to a hungry man in active work. Doubtless another essay in the same direction may produce a more convenient comestible.

The praises of Aberdeen soup, or "Cardwell's skilly," can be adequately sung only by those high-minded militiamen who threw it away rather than make a pretence of subsisting on it. I am afraid, however, that the militiaman's ode, flowery as it would doubtless be, would wind up with the expression of a fervent wish to see Mr. Cardwell drowned—or, at all events, well ducked—in carrot-soup. When a man is roused from his uneasy slumbers at 5 a.m., gets his frugal breakfast of coffee and commissariat biscuit, strikes the camp, marches all day, fights a battle, pitches tents again at a new encampment, and awaits his next meal at about 7 p.m., it is rather trying to his endurance to be presented with the thirteenth part of a six-pound tin of soup as his ration for the day. Yet this is what actually occurred. True, when a complaint was made it was said to be a mistake, as the amount intended to have been sent was one can for every six men; and, on the general's demand, a ration of Yateman's sausage was served out in addition. But after six months' preparation such mistakes ought not to be possible. The soup itself was by no means bad; it was not very strong, and was perhaps a little greasy, but it was palatable enough for hungry men. The quantity of meat in each can was very small; nearly half the space seemed to be filled with pieces of chopped carrot, about one-third of an inch cube. It requires more experience than I possess to see the reasonableness of giving men who have been accustomed to solid food a pint of this decoction as their sole meat-ration at the end of a hard day's work. If it were desired to administer a mild aperient to the force, probably a more convenient and elegant form might have been devised. As it was, the diarrhœa, which had greatly abated, was immediately renewed after the soup, the issuing of which was stopped after one or two days, so great was the clamour against it.

The Australian mutton, coming after the fluid nutriment just described, had the advantage of contrast. It was liked by the men, and seemed in every way a valuable aid to the victualling of an army. It was in six- or eight-pound tins (which would pack better if they were square instead of cylindrical). The salt pork was also very good, and sufficient in quantity.

Commissariat biscuit is doubtless wholesome, but is not interesting as an article of diet. It is inferior to the ship-biscuit of our own service, and to the "hard tack" of the American army. Men at the camp irreverently called it "dog-biscuit." Our people are in the habit of eating the whitest wheaten bread that the baker can furnish them with, taking no account of its nutritive value. Probably there would be some difficulty in inducing them to take kindly to the coarse rye-bread consumed with much satisfaction by the German army; but the faculty of keeping moist and good for three weeks or more possessed by this last gives it a great advantage over white bread, in addition to its greater nutritive power. Perhaps some form of "whole meal" wheaten bread could contrived which would be both highly nutritious and palatable.

A method of preserving meat used in Germany during the war seems valuable enough to deserve imitation. As it was described to me, the meat cut into quarters and cleaned was plunged for a few minutes into boiling water to coagulate the surface, and then hung up under large sheds in the open air for some days, to dry. I saw large quantities of meat being treated in this way at Mainz. It was said to remain fresh for a month, and thereby to save the trouble of conveying large herds of cattle and the forage necessary for them to the front, so long as railway communication was available.

I should be going beyond my province if I were to inquire into the causes of the irregularity and delays of the control. Those who had to draw the supplies attributed them in a great measure to minute obstructions and useless formalities, such as appear to be the besetting sin of all systems of intendance. Be this as it may, there can be little doubt that if the victualling of the army before Troy had been so defective, my revered ancestor would have asked Calchas, the soothsayer, to dinner, and given him nothing but carrot-soup; upon which the seer would have promptly found out that the omens were against retaining the existing supply department in office, and would have had them all packed off in a ship to consult the oracle, or on some like erraud, with orders not to come back till they were sent for. Probably this summary process is now out of date; but some measure of the kind is needed, notwithstanding that the gallant chief of the department, with more than the traditional bravery of the British soldier, has issued an order praising everybody connected with it.

By the way, what law of nature is it that makes nine-tenths of her Majesty's Army Medical Officers hail from the sister isle? The fact is unmistakable; and that it is no novelty is shown by my own patronymic. No wonder the printer did not recognise my name; sure, I ought to have written it

McHAON, jun., M.D.

OUT-PATIENT DEPARTMENTS.

[To the Editor of the Medical Times and Gazette.]

SIR,—According to a "daily," the Poplar Hospital has closed its out-patient department, there being sufficient gratuitous opportunities for advice where necessary in the district. Let the other Hospitals inquire into their out-patient departments. It must be borne in mind that, in addition to the vast sums spent in drink by highly paid (because skilled) mechanics, waste is not limited to that source. How many must have the best cut from the best butcher in the locality—not even denying themselves salmon at tenpence to fourteenpence a pound, or an occasional bottle of sherry with "a friend"; the Sunday excursion to Hastings or Brighton, with its additional extravagance in eating and drinking!

Let those ambitious young men who give their advice to persons (often "well-to-do" tradesmen) in the hope of creeping through the kitchen into the drawing-room elsewhere, reflect that all this gratuitous advice is not rarely given to those who can easily find a guinea for consultation in a dangerous case, but can also without difficulty find half-a-crown for a phial and medicine from the general Practitioner close by their own door.

A still more glaring abuse must be remedied: that of the tradesman—with his "Sunday trap," and his family at Ramsgate for six weeks or a month in "the season"—getting his own Medical attendance and medicines for the *heavy* expenditure of three or four shillings per annum under the active, organised abuses of the club system. A well-organised club, with a graduated scale of payments, according to the earnings of the member, is in my view the only way to diminish the mortality arising from the prescribing of druggists and the inefficient out-patient departments of Hospitals. The subscriptions to the latter must diminish in a steady ratio unless a reform take place, for the philanthropic public will cease to tax themselves to support a system so demoralising, and so conducive to pauperising undeserving persons. I am, &c.,

October 21. NEMO.

THERE were 709 deaths in Paris last week, including four cases of small-pox, twenty-nine of typhoid fever, and one of cholera.

REPORTS OF SOCIETIES.

ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.

SATURDAY, OCTOBER 21.

Dr. DEUITT, President, in the Chair.

THE first meeting of the Session 1871-2 was held at the Scottish Corporation Hall, Crane-court, Fleet-street. After the minutes of the last meeting had been read and confirmed, a ballot took place, when Dr. Dudfield, Medical Officer for Kensington, was declared to have been unanimously elected a member of the Association; Dr. Mouat, late Inspector of Prisons in Bengal, and Dr. Fergus, President of the Sanitary and Social Section of the Philosophical Society, were proposed as associated members; Professor Corfield, Medical Officer for Islington, and Mr. Skegg, Medical Officer for St. Martin-in-the-Fields, were proposed as ordinary members.

Dr. ILIFFE moved a vote of sympathy with Dr. Puckle, Medical Officer of Health for Lambeth, who is now lying in a dangerous state through illness contracted, in great measure, in the discharge of the duties of his office. The motion was unanimously carried.

The PRESIDENT paid a tribute to the memory of Dr. Beale, Medical Officer of St. Martin-in-the-Fields, who had been taken from among them by death since their last meeting, and moved a vote of sympathy on the part of the members with the friends of the deceased. Since their last meeting Dr. Ballard had been promoted to the office of Medical Inspector under the Local Government Board. The President regretted having been unable to attend the meetings of the Association during the latter part of last session, in consequence of illness; he had also been kept away several months in Scotland in enforced idleness; but now, he hoped, they would enter on a vigorous campaign for the eradication of abuses.

Mr. GARDNER BROWN exhibited and explained a new Self-acting Disinfector, for water-closets, etc., lately invented by him. Mr. Brown explained very clearly in what manner the apparatus was self-acting, and what means he had devised for regulating the amount of carbolic acid or other disinfectant used, and for securing economy and efficiency in the use of the disinfectant.

Dr. STEVENSON thought the invention a very useful one; he had watched its progress with great interest, and thought that Mr. Brown had now brought his apparatus to a great state of perfection.

Mr. LIDDLE, Medical Officer of Health for Whitechapel, read a paper "On the Intimate Relation between Defective Ventilation and the Mortality from Tubercular Diseases, Convulsions in Children, Teething, Atrophy, and Debility, with a few Practical Suggestions thereon." At the outset, Mr. Liddle remarked that hitherto the attention of the Local Board had been mostly confined to epidemic diseases; they had not paid that attention to the prevention of consumption and its allied diseases which their importance demanded. He proceeded to dwell on the importance of fresh air—a subject little understood, and that not by the poor alone. It was thoroughly appreciated, however, by the owners of animals when stirred up by pecuniary interests, and the state of their stalls contrasted painfully with the wretched dens of the poor. Mr. Liddle then quoted the authority of eminent members of the Medical Profession, showing the injurious effects of impure air in corrupting and enfeebling the constitution of the poorer classes and their offspring—not only the poor, but others, such as clerks, who are compelled to keep late hours in offices where much gas is used, and no sufficient provision is made for carrying off the products of its combustion; shopkeepers' assistants, tailors, milliners, and others who have not sufficient exercise in the open air. The very large mortality in young children Mr. Liddle believed to be, in a great measure, attributable to this cause. He regretted that while such large sums had been expended in ornamenting the metropolis, and opening out thoroughfares for traffic—improvements which, for the most part, benefited only the better classes—so little had been expended in improving the dwellings of the poor. How the same people, whose health was so indifferent in their ill-ventilated homes, improved in health when placed under proper sanitary conditions, was shown by the concurrent testimony of Medical Practitioners that the health of prisoners in gaol is in general much higher than that of the surrounding population. Mr. Liddle corroborated this by an interesting incident in his own experience. A few weeks ago he went down to visit a number of boys (the children of panperparents) who had been transferred from the Forest-gate School to the training-ship *Goliah*, moored in the river off Grays, in Essex. Mr. Liddle gave statistics of the height, weight, and breadth of chest of eighteen of these boys when received on board the ship, and compared them with what they were at the present time. The improvement in all these respects was most remarkable. In addition to this, the downcast and sullen look had given place to an expression of intelligence and cheerfulness. Returning to his district of Whitechapel, Mr. Liddle lamented its overcrowded state; in some places not more than four square yards were allowed for each person. No wonder, then, that the mortality from consumption stood so high. Coming now to the means for preventing these evils, he spoke of the existing laws which give power to the Medical Officer of Health to deal with these abuses; and urged the members to use their utmost endeavours to get the Local Board to put these laws in force. He maintained that, even if no action were taken, the Medical Officers ought not to fail to make their reports as to the unsatisfactory state of this or that property. Besides, they could not ask Government for additional legislation until they had put in force existing laws. They had, however, a right to ask for an Act to prevent the building of unhealthy houses in the future. An opportunity for this was offered in the Building Bill, which had come before Parliament several times, and so far without any result. The part referring to the materials, etc., might well be left to the Metropolitan Board, but the sanitary clauses he considered were the province of the Medical Officers of Health, and he trusted the influence of the Association would be exerted in seeing that effective sanitary clauses were inserted in the Bill.

A vote of thanks was accorded to Mr. Liddle for his valuable paper.

Dr. ILIFFE was of opinion that the ordinary space insisted on in front and in the rear of houses ought to depend on the height of the boundary walls. In his opinion the Peabody Fund would have been better employed in buying up unhealthy property and putting it in proper sanitary condition.

The Rev. Mr. COHEN complained that the poor could not be prevailed upon to open their windows. They must be taught the benefits of ventilation. It was hard for the ratepayers to be called upon to pay for people who would do nothing to help themselves.

Dr. SUTTON thought that insanity might have been included by Mr. Liddle among the diseases arising from close and foul air; and proceeded to explain the connexion existing between phthisis and insanity. It was not to be wondered at that the poor, living in such houses as they did, should find themselves unable to support their daily labour. Dr. Sutton enumerated some of the difficulties he had encountered in his personal experience, and contended that a New Building Act was needed, giving power to the Local Board to prohibit the erection of unsanitary buildings.

Mr. GLADDEN spoke of the injustice that would be done to owners if house property should be condemned without compensation, and of the heavy burden to the ratepayers if they should be called upon to pay the full amount. He thought some middle course ought to be devised.

Mr. FINLAY thought the difficulty would be best met by preventing the building of new houses under unsatisfactory conditions, allowing the old ones to die out with the lapse of time.

Dr. HARDWICKE spoke of the difficulty of dealing with houses built originally for one family, but now occupied by five or six. He likewise condemned suburban cottages, the extra space in front and behind being made receptacles for filth. The best plan to his mind was the system adopted by a large employer of labour in Picardy, who has built for his workpeople blocks of houses, which are kept in a perfect state of cleanliness by the appointment of servants for that purpose, the cleaning being taken out of the hands of the tenants.

The PRESIDENT corroborated what had been said about the health of prisoners. The unsatisfactory state of the houses of the poor showed a very bad state of conscience on the part of owners, and lamentable ignorance on the part of the ratepayers. Men built houses, for the sake of gain, that could only undermine the health of the occupants, and make them a burden to the ratepayers. It was for the latter to remonstrate, and prevent such proceedings.

Mr. LIDDLE having made a brief reply, the proceedings came to a close.

MEDICAL SOCIETY OF LONDON.

MONDAY, OCTOBER 16.

DR. ANDREW CLARK, President, in the Chair.

AFTER a few words of cordial welcome to the Fellows, the President said that he was happy in being able to congratulate them on the prosperity of the Society, which had never been better off. The Fellows numbered 400; of these, 180 were non-subscribers. The Honorary Treasurer, Mr. J. Gay, had a balance of £211 in his hands, while the Fothergillian Fund has risen from £500 to nearly £1000. The Society's freehold, No. 3, Bolt-court, which was bequeathed by Dr. Lettsom, was let for £50 a year; but as the present lease would expire in another year, it was estimated that the Society would derive at least £100 a year from this source. How was this prosperity to be kept up? By maintaining and, if possible, in improving the work—by trying communications by this test: Do they add to, correct, or confirm what is already known?—by aiming in all work at precision; by making it compendious and practical—by recording results of therapeutical experiments—by endeavouring to cultivate the spirit of good-fellowship, and to find out in one another what is worthiest and best—and so, working with singleness of heart and purpose, it cannot be but that their work will be fruitful in all manner of good. In speaking of the character of their work, he would refer, 1st, to the early history of a disease—say of phthisis. It was by the co-operation of Fellows of such a Society as this that a perfect knowledge of such a disease could be had. There was, unfortunately, a want of faith and a want of precision in the use of drugs; a great want of reliable knowledge. Such important investigations as these might well be made by committees appointed from time to time, and means might be furnished from the surplus Fothergillian Funds. A second way to increase the prosperity of the Society was for each Fellow to endeavour to induce another to join. "It is in such a Society as this that we get fresh knowledge, our errors corrected, our doubts resolved. It is here that a man is delivered from his own crotchets, follies, and ignorance, secured from one-sided views, and brought face to face with every side of the problems which he studies. A man does not know what he knows or what he does not know till he has taken an active part in the debates of such a Society." The President then alluded to the great loss the Society had suffered in the death of the late Dr. Hyde Salter, who had been for three years Secretary to the Society, and had discharged the duties attached to the office in a most exemplary manner. He had accepted the Lettsomian Professorship, but, finding his health failing, he resigned the appointment early in the year.

Dr. RICHARDSON then read a paper "On the Possibility of Destroying Animals intended for Human Consumption without the Infliction of Pain." After reviewing the various means employed in the execution of this humane project, with partial success, he recommended the following vapours:—1. Hydramyle and bichloride of methylene. 2. Carbon disulphide and methylene bichloride. 3. Chloroform, or methylene and coal-gas. In sleep all sensibility is destroyed in fifty or one hundred seconds. Two drachms is poured on dometie, in a conical inhaler; the animal does not struggle; the butcher kills in the usual way; bleeding follows. First, primary syncopal convulsion (after loss of forty ounces of blood); second, fatal convulsive paroxysm (after the loss of ten ounces more); the heart ceases to play. During narcotism the primary convulsion is suspended, or much reduced in force. The second convulsion (an entirely reflex and painless phenomenon), insensibility, is quickly produced; no odour or taste is left. An ingenious apparatus was shown, to contain the narcotic vapour and to allow coal-gas to flow through. For oxen, a number of chambers could be devised, with swinging doors, through which oxen could be drawn on trucks by means of an endless chain, the chambers to be filled with the narcotising vapour. Animals could pass through the Lethal river of vapour, and be made oblivious of death, at the rate of sixty per hour.

Mr. GAY read a paper on "Hypo-Venosity of the Lower Limb," of which the following is an abstract:—The term hypo-venosity is used to express a condition of the limb in which there is a deficiency in the veins belonging to the saphenous system: as hyper-venosity might be used to express the opposite condition, or that in which there is an excess in the development of these veins, even to varicosity. The characteristic features of a hypo-venous limb are the reverse of those which obtain in a limb affected with hyper-venosity; for whereas in the latter, especially with varicosity, the limb is usually lean, and the outlines of bone, muscle, and tendon are, as a rule, sharp and well-defined, in the former these outlines become gradually effaced, the skin becomes of a dusky colour, the whole limb dense or brawny, and muscular action difficult and painful. With the exception of sometimes, it may be, a few dilated or varicose venous twigs below the ankles, or on the dorsum of the foot, there is scarcely a vein to be seen, except, as it may be, here and there as a thin blue line, which exercise or heat fails equally in filling. The disease is advanced by rest and elastic stockings, the remedies usually employed; and, with its advance, the subdermoid fat layer becomes denser and loses its elasticity. Whilst its remote causes are any disease of those vessels of an active or passive character, such as phlebitis (especially in its gouty or rheumatic forms), insufficient muscular exercise, systemic asthenia, etc., degeneration and consequent incompetence of the saphenous veins and their branches is its exciting cause. Secondarily, it is presumed, the deep trunk veins become dilated, their valves partially inert, and fatty deposit and degeneration take place in the muscles and their connective tissues. The grounds for this inference are—(a) that functional deterioration of the saphenous system, through thickening, atrophy, retrecissement, or thrombus, is an occasional pathological fact; (b) and that saphenous inefficiency as shown by a varicose condition of the venous radicles—tegumentary or figurative varicosity—as well as by a dusky colour of the skin, otherwise than from melasma, or skeleroderma, are habitually associated with and indicate dilatation of the deep trunk veins. (These facts I observed in the course of dissections made some years since, with a view of elucidating the subject of varicosity.) Throughout the systems of organic and muscular life the venous system is double—the superficial and deep, or the main and complementary; the former playing to the latter the part of a waste-pipe, or compensating system, ready to relieve it when its vessels are unduly filled. The deep veins—*i. e.*, those which are radically interwoven with the organs of vegetative and animal life—constitute the real venous system; therefore the current through these veins, in the healthy performance of the double circulation, is maintained by a combination of forces, of which voluntary muscular is not a necessary co-efficient, since it would go on with the limb at perfect and continued rest. The current through the complementary veins, on the other hand, derives its chief importance from the fact of its receiving—in the limbs, more especially—its principal impulse from voluntary muscular action. In case its vessels become inefficient, the surplus quantity of blood, due to muscular exercise, is poured into the deep veins with a force that, as the result of this abnormal diversion, is expended on their coats, and results in dilatation, valvular incapacity, muscular deterioration, and other changes yet to be noticed. The forces which determine the returning current of the blood are complex: the principal of which are the heart's action, arterial elasticity, and the influence of the nervous system. These are factors, each to a certain extent only; whilst experiments show that each may separately be cut off, and yet the blood will find its way back to the heart. Moreover, the blood will pass from the arteries into the veins without the aid of any of these forces. The blood passes into the femoral vein if the corresponding artery is tied, its flow being only retarded; and, according to the experiments of Dr. J. Reid, as relates to the nervous system and muscular tissue, it is clear that the only ascertained final causes of all endowments bestowed on nerves in relation to muscles is not to make muscles irritable, but to subject their irritability in different ways to the domain of the acts and feelings of the mind, and I might add to the exigencies of the organism. To complete the sum of the required forces, another has been hypothecated, the "capillary" force. Can such a force be shown to exist? I made the following experiment on dogs some few years since, in the presence of many members of our Profession. The whole of a dog's thigh was enveloped in ligature with the exception of the femoral artery, so as to permit of the free ingress of blood into it, but completely to prevent its exit. The result was that the whole of the saphenous system to its minutest capillary vessels, and the deep trunk veins, were filled to their utmost point of endurance; but there was no corresponding sanguineous repletion of muscular tissue. It showed no signs even of congestion. This, with another ascertained fact—viz., that after death the temperature of the body may rise, and muscular contraction occur, giving rise to its well-known "hum" (Drs. Haughton and Collongnes), and the disposition of the minute capillaries in relation to muscular tissue (which, through the kindness of Dr. Dempsey, I hope to be able to demonstrate at the next meeting)—together go far to prove the existence of such a force in a condition of perpetual activity; that it exists in connexion with muscular tissue or

sarcode—that organic molecular action, perhaps, which exists in all sarcode, from that of the amœba to the higher organisms—and that to it the venous current is mainly due; that, in fact, as an agent in the circulating system, it is to the capillary, very analogous in some respect to what the heart is to the arterial system. As this department of the venous system belongs to vegetative life, so embarrassment to the current of blood through it results in defective elimination of the hydrocarbons and their allies from the tissues indicated; and hence solid œdema, superfascially, fatty deposit and degeneration, subfascially, and ultimately elephantiasis or a disease closely akin to it. As the deep or main system of veins is thus associated with the nutritive processes, so the superficial or complementary is essentially eliminatory, for it is from these veins in the lower limb that dropsical effusion takes place. Œdematous fluid is chiefly and usually solely superfascial; and it is not improbable that in other dropsies, as of the pericardium, pleura, or peritoneum, the fluid escapes from veins of the same class—viz., from those of the complementary system. The disorder described is due, then, to inefficiency in the saphenous system of veins, followed by deep vein dilatation and embarrassment. The treatment is the reverse of that ordinarily employed—viz., an entire freedom of the limb from all compresses, enforced walking exercise, begun in moderation and periodically increased, hot applications, especially hot sea-water to the limb, and it may be the internal administration of the liquor potassæ—in short, by the use of all those measures, hygienic and therapeutical, which can, on the one hand, restore the circulation of the limb, upon the principle that its right use is its stimulus to health and perfection; and on the other, relieve it of its superabundant fat.

OBITUARY.

JAMES FAWCUS, M.D.,

Inspector-General of Gaols in Bengal, whose death, at the age of 38, we have to-day to record, was educated at University College, London, and took his Doctor's degree at the University of London in 1858. His short career was marked by peculiar activity and usefulness, and it was just at his entrance into new and important spheres of duty that he has been lost to his Profession and his country.

He got his formal schooling at Mill-hill, but the education that did most to form his character and to gain him his future success was chiefly acquired among the influences of the English lakes, where many of his early years were spent. He brought to University College a strong body and mind, and a faculty of easy, steady, and unostentatious work. He was hardly out of his studentship before he found an opportunity for using his abilities, and for turning to account the singular power of mastering circumstances that served him all through his life. When, in the spring of 1855, during the Crimean war, Dr. Parkes organised the Hospital at Renkioi, in the rear of the allied armies, Mr. Fawcus was appointed one of the Medical staff. There, with the keenest interest in his work he combined the happy disposition that knew of no difficulties and made others forget them. To be in a new position, where his knowledge and resources were taxed to the utmost—where he could work hard and be useful, forgetting that there was such a thing as his own comfort—was an unmixed pleasure to him. He earned the Crimean medal by services rendered in the trenches of the Malakoff, where his love for stirring action made him volunteer as one of the Surgical staff on actual service in the field.

On his return from the Crimea he graduated with honours in the University of London, and studied for some time at Paris and Vienna. After passing his Indian examination, Dr. Fawcus was appointed, in the spring of 1859, to the 47th Native Infantry, at that time ordered for service in China. There, however, he saw little actual war, and, returning to India, remained for a year or two as Civil Surgeon at Jaunpore. Then, on leave of absence, he made an experimental visit as a colonist to New Zealand; but as his career there did not yield him Professional opportunities, he came back to India, and now he found there the vocation of his life. He had carried with him from England letters of introduction to Dr. Mouat, then Inspector-General of Gaols in Bengal, and was at once recognised by Dr. Mouat as the man to develope the scheme of dealing with prisoners that was then just being introduced into Indian gaols. His first opportunity had been at Monghyr, and Dr. Mouat, appreciating what he had done there in reclaiming the savagery of the prison, obtained for him the more important appointment of Superintendent of the Alipore Gaol, with over 2000 prisoners. At that time the notion of giving to a prisoner an object for existence—of letting him do intelligent work as a reward, while his labour should pay for gaol expenses—was as little known in India as it is as yet known in English gaols. Into this system Dr. Fawcus threw his whole heart. It had to struggle against many prejudices and obstacles. Thus, the opponents of prison labour had contrived that jute should not be supplied to the prison looms except at artificially raised prices, which they intended to be prohibitory of prison weaving. It was found necessary to surmount this obstacle by spinning-machinery procured from England, and it was arranged to be a further employment, and a further source of revenue for the prison, to manufacture the yarn from the raw material, while thenceforth occupation was given to an increased number of looms. With what singular power Dr. Fawcus overcame every hindrance, and brought about this and other valuable results, is witnessed by the fact that Alipore Gaol soon became altogether self-supporting, and has for some years earned an income in considerable excess of its cost. At the same period Dr. Fawcus held the appointment of Assistant-Surgeon in the Civil Hospital at Calcutta; and here his special Surgical abilities had play. He was known there not only as a clever operator, but as a man who, without regard of personal convenience and ease, would do anything to save his patient. Besides the duties of these two offices, he was also employed in scientific researches. With Dr. Cunningham he did much valuable work on the Pathology of Cholera, published in Dr. Mouat's annual volumes. His own most recent contribution was a short but well-grounded thesis disproving some of the currently received doctrines about Embolism in Cholera.

Dr. Fawcus had repeatedly been charged with the duties of his superior officer when he was on leave of absence, and in 1865 he was made Deputy Inspector-General. Last year, on Dr. Mouat's retirement, he was appointed, at an early age, to the high rank of Inspector-General of Gaols. By this time, long work at Calcutta, with no holiday, had told seriously on his health; but upon receiving his appointment he thought it his duty to make a personal tour of inspection of his gaols. He had visited those in Orissa and Assam, when his health completely broke down, but as there was no one able at once to supply his place, he still stayed at his post; and when at last he came to England, in the spring of the present year, his Indian intermittent had produced considerable organic disease. Pneumonia superadded to this was the immediate cause of his death.

In person, Dr. Fawcus was ruddy, youthful, and handsome, with particularly easy and engaging manners. He endeared himself to everyone by his brave tenderness, his genial humour, and his perfection of truth and honour. Twelve years spent in India gained him a host of friends there, and lost him no jot of love from his old friends in England. He has left a widow and a family of young children to mourn his loss.

GEORGE FAITHORN, M.R.C.S., etc.

Mr. Faithorn met his death in course of attendance upon the poor of the town in which he was in practice—Chesham, Buckinghamshire — where a malignant fever (typhus) has lately broken out, in consequence of neglect of sanitary arrangements, against which Mr. Faithorn had often and earnestly protested. Mr. Faithorn and his junior partner were the only Medical men in the place. The junior partner, Mr. Churchill was first taken with the fever, but is recovering. This obliged Mr. Faithorn to take the whole of the parish and private practice; and not being a man likely to spare himself, he toiled night and day—in fact, till he was absolutely too ill to stir—for there can be no question that he was hard at work after he had contracted the fever. Twelve days after, he was dead. He was educated at St. Bartholomew's. He was not the author of any Medical work; all his energies were in other directions.

ARTHUR KEMPE, F.R.C.S.E., L.S.A.,

Was found dead in his bed on Wednesday morning last. He was a Surgeon of good abilities and large practice, and his loss will be felt by a large circle of friends and patients. He had just before his death presented to the city of Exeter a handsome public clock and fountain. At the meeting of the City Council, which was held on the day of Mr. Kempe's death, the Mayor announced his decease, when the announcement was received with general regret. Mr. Kempe was Surgeon to the Devon and Exeter Hospital and Exeter Lying-in Charity, and Consulting-Surgeon to the Exeter Dispensary. He contributed to this journal, in 1867, "Successful Cases of Ovariotomy."

DR. HENRY ABERGAVENNY WOOTTON.

This gentleman died at Dumfries on July 26, in the 82nd year of his age. He was the youngest son of Dr. William Wootton Knight, who formerly practised in Brook-street, Grosvenor-square. In early life Dr. Henry Weetton served in the Royal Navy, and was present as a midshipman at the battle of Trafalgar. He was afterwards made prisoner of war by the French, and escaped from Toulon in female attire. He then entered the army, and went through the Peninsular war. He was present at Badajoz, Salamanca, and afterwards at Waterloo and Ava. On leaving the army he turned his attention to Medicine, and was a pupil of Sir Astley Cooper. He practised for a short time at Blackheath, but afterwards went to India and again entered the army, and was for many years in active service. He was wounded several times, and received three medals with two clasps. On one occasion he also received a reward for saving a garrison from the bursting of a shell, which he took up and threw over a parapet. He afterwards held several Medical appointments in Australia, and on returning to Europe he practised at Havre and Dieppe. Dr. Wootton was a kind and skilful Physician, and was much respected and beloved by his family and friends.

JOHN S. SNOOK, M.R.C.S.

We regret much to announce the death of this gentleman, which took place at Colyton, Devon, on Sunday, October 15. Mr. Snook had been in the enjoyment of his usual health up to three weeks before his death. He then was taken ill with gout, but no anxiety was felt on his account until Friday, October 13, when he became suddenly weaker, cardiac symptoms supervened, and he sank. Mr. Snook was educated at the Middlesex Hospital. He practised all his life at Colyton, where his family had resided for generations. He was a skilful Surgeon, an excellent, kind-hearted gentleman, and his loss is felt as a public calamity in Colyton and the neighbourhood. He was Medical Officer to the Axminster and Honiton Unions, and Honorary Surgeon to the East Devon Rifle Volunteers. We subjoin an extract from an obituary notice of Mr. Snook which appeared in a local paper:—

"His Medical ability was very great, and in the course of a large practice he had proved himself always equal to the emergency. Cases of unusual difficulty were met by him with singular success. As a Surgeon, too, he was highly distinguished for his skill, and his nerve, decision, and acumen never failed. In a wider sphere—in the metropolis, indeed—he would doubtless have made his mark. But he preferred to labour where he was born, in the place he loved—amongst those by whom he was personally beloved, and amongst whom he died. This is not the place to allude but cursorily to the loss of those who mourn a husband and father of rare tenderness and devotion. But there are many others who will also mourn for a constant friend, whose warm genial feelings no time nor trials (of which he had not a few) could change; whilst the poor have lost a friend indeed. It may well be said of him what once was said of another of his noble Profession—

> 'In misery's darkest cavern known,
> His useful care was ever nigh;
> Where hopeless anguish pour'd its groan,
> And lonely want retired to die.'

And the numerous instances in which with more than Medicine was the good he did, can be only known to the Great Physician. How shall we miss that cheery greeting he had for all—that genuine kindly humour and friendly warmth! His clear judgment and strong sense made him a delightful companion, a friend so reliable—and, with his high honour, sterling, straightforward, truly manly character and firm principle, we may well feel that no ordinary man has passed away from us, but rather one of those whose name, example, and good deeds remain. The funeral took place on Saturday afternoon. A large concourse of people lined the streets, and the shops were closed. Besides the family, there was a large following of neighbours and friends. The 27th Devon Rifle Volunteers, headed by their commanding officer, Capt. Dick, formed a guard of honour. It was the unanimous wish of the corps to pay the last tribute of respect to their Honorary Surgeon. The church was filled in every part, and the service impressively read by the vicar, the Rev. M. Gueritz, who also read the service at the grave in the cemetery. Seldom has public respect, attachment, and sympathy been so spontaneously and unequivocally manifested."

Mr. Davidson, of King William's College, Isle of Man, has been elected to a Natural Science Scholarship at Sidney Sussex College, Cambridge.

MEDICAL NEWS.

Apothecaries' Hall.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, October 19, 1871:—

Carey, Richard John, Northampton.
Kindon, Joseph, Croydon.
Robinson, Edmund, Leeds.
Wall, William Barrow, Wedmore, Somerset.

King and Queen's College of Physicians in Ireland.—At the monthly examinations, held on October 10, 11, and 12, the following candidates were successful:—

For the Licence to practise Medicine.

Barnardo, Fredk. Adolphus Ernest.
Cox, Henry Thompson.
Gavin, Patrick Freebern.
Hughes, William Robert.
Smith, Nicholas Skottowe.
Smyth, Sydney Richard.

For the Midwifery Diploma.

Barnardo, Fredk. Adolphus Ernest.
Cox, Henry Thompson.
Gavin, Patrick Freebern.
Hughes, William Robert.
O'Flaherty, Richard George.
Smith, Nicholas Skottowe.
Smyth, Hatton.
Smyth, Sydney Richard.

The Apothecaries' Hall, Dublin.—At the Preliminary Examination in Arts, held on October 19, the following gentlemen received Certificates entitling them to commence their Medical studies:—

Cullinan, Michael Cormac.
Deacon, Oliver William.
Donovan, Robert Edward.
Dunne, William.
Lynch, Francis John.
McLaughlin, James Maurice.
Moore, William.
Mulvany, Peter.
Nagle, James Roche.
O'Brennan, James Henry.
O'Meehan, John Albert.
O'Neill, Henry.
O'Shea, Michael Joseph.

The following candidates, having passed their Professional Examinations, obtained the Licence to Practise:—

Myles, Thomas William, Limerick.
Orr, Hugh, Virginia, co. Cavan.
O'Reilly, Francis Augustine, Killeshandra, co. Cavan.
Peacocke, John, Limerick.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Allen, Marcus, L.R.C.P., M.R.C.S., L.S.A., L.M.—House-Physician to St. Bartholomew's Hospital, London.

Buaton, John, jun., L.R.C.P. & S. Edin.—Medical Officer to the Walsall Union.

Clibborn, Cuthbert J., M.B., M.Ch., L.M., B.A., T.C.D.—Medical Officer for the Kiltegan Dispensary District of the Baltinglass Union.

Danson, C. E. B., M.R.C.S.E., L.S.A.—Medical Officer for the Pocklington No. 1 District of the Pocklington Union.

Jackson, Alfred, L.R.C.P. Edin., L.R.C.S. Edin.—Medical Officer of the Pocklington No. 2 District of the Pocklington Union.

Knott, Middleton O'Malley, L.R.C.S.I., L.R.C.P. Ed.—Surgeon to the Mayo Infirmary, Castlebar.

Marriott, Chas. Wm., M.R.C.S. Eng.—Surgeon to the Warneford Hospital, Leamington, *vice* J. E. Male, Esq., deceased.

Ogle, John William, M.D.—Inspector of Anatomy in England and Wales, in the room of George Cursham, M.D., deceased.

Puddicombe, Edward Morgan, M.R.C.S. Eng.—Medical Officer and Public Vaccinator for the Silverton District of the Tiverton Union, *vice* Chas. Elworthy Cutcliffe, M.R.C.S. Eng., L.S.A. Lond., deceased.

Reynolds, Howard David, M.R.C.S., L.R.C.P.—Medical Officer for No. 5 District of the Pembroke Union.

Rutherford, D. J., M.D. Edin.—Medical Officer of the Parish of Unst, Shetland, in room of H. L. Saxby, M.D., resigned.

Thomas, Llewellyn, M.R.C.S.E., L.A.C.—Resident Medical Officer to the Guest Hospital, Dudley.

BIRTHS.

Allen.—On September 20, at Chittagong, East Indies, the wife of William Edward Allen, F.R.C.S., Surgeon H.M.'s Bengal Army, of a daughter.

Frodsham.—On October 21, at Upper Streatham, the wife of John Mill Frodsham, M.D., of a daughter.

Heygate.—On October 20, at Kibworth Beauchamp, Leicester, the wife of W. N. Heygate, M.R.C.S.E., prematurely, of a son, still-born.

Hope-Robson.—On October 21, at Iver, Bucks, the wife of F. Hope-Robson, M.D., F.R.C.S., of a son.

Marriott.—On October 20, at 7, Welford-place, Leicester, the wife of C. H. Marriott, M.D., of a son.

Ogilvy.—On September 17, at Mussoorie, East Indies, the wife of John Ogilvy, M.D., Surgeon Royal Horse Artillery, of a son.

Reid.—On October 22, at Haulbowline, county Cork, the wife of Dr. Reid, R.N., of a daughter.

Richardson.—On October 22, at Cheswick House, Beal, Northumberland, the wife of Henry Richardson, M.D., Staff-Surgeon R.N., of a daughter.

Smith.—On October 23, at 129, Clapham-road, the wife of William H. Smith, M.R.C.S. etc., of a daughter.

TEALE.—On October 20, at Headingly, near Leeds, the wife of T. Pridgin Teale, Esq., of a daughter.

THORNE.—On October 20, at 42, Seymour-street, Portman-square, W., the wife of Dr. R. Thorne Thorne, of a daughter.

MARRIAGES.

DOBSON—BOURNE.—On October 24, at the parish church, Edgbaston, Thomas Dobson, M.D., of Windermere, to Marianne, youngest daughter of the late Henry Bourne, of The Limes, Edgbaston.

HAMER-OLIVER—SINGH.—On October 20, at St. George's Church, Bloomsbury, J. Hamer-Oliver, Assistant-Surgeon Royal Artillery, to Henrietta Melvina, widow of his Highness the late Rajah Rundheer Singh, of Kuppoorthalla, G.C.S.I.

LORRAINE—LAKE.—On the 11th inst., at Trinity Church, Ossett, near Wakefield, William James Lorraine, M.R.C.S., L.R.C.P.E., Wakefield, to Catherine Mary, fourth daughter of Thos. Lake, of Flushdyke, near Wakefield.

TAYLOR—HINCHCLIFF.—On October 19, at St. Mark's Church, Hamilton-terrace, Gabriel, third son of John Taylor, M.D., Girvan, N.B., to Lucy, eldest daughter of Andrew Hinchcliff, Esq., Sydney, N.S.W.

TULLOCH—ANTON.—On October 21, at St. John'a Cathedral, Hong-kong, James R. Anton, Esq., of Hongkong, to Jane Stewart, elder daughter of J. Stewart Tulloch, M.D., of 1, Pembroke-place, Bayswater.

VAWDREY—WHITTING.—On October 19, at Uphill Church, George Vawdrey, L.R.C.P., only son of George Vawdrey, Esq., Hayle, Cornwall, to Annie, eldest daughter of Charles Whitting, Esq., of Sandcroft, Uphill.

DEATHS.

CHRISTIAN, JAMES STANLEY, M.D., of Thurloe-place, South Kensington, at 7, Prince of Wales-terrace, Kensington, on October 17.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Assistant-Surgeon. Candidates must be F. or M.R.C.S.E., not practising midwifery or pharmacy. Applications and testimonials to the Secretary, on or before November 3.

FULHAM UNION.—Medical Officer and Public Vaccinator for No. 5 District. The gentleman appointed must have the qualifications prescribed by the General Orders of the Poor-law Board. Applications and testimonials to Mr. T. Aplin Marsh, Clerk to the Guardians, on or before October 31. Election on November 2.

GREAT NORTHERN HOSPITAL.—House-Surgeon. Candidates must be M.R.C.S. Applications and testimonials to the Secretary, Mr. G. Reid, 46, Great Coram-street, W.C., on or before October 30.

GREAT OUSEBURN UNION.—Medical Officer and Public Vaccinator for the Workhouse and the Ouseburn District. Candidates must possess the qualifications prescribed by the General Orders of the Local Government Board. Applications and testimonials to H. H. Capes, Esq., Solicitor, Knaresborough, Yorkshire, on or before October 28. Election on the 30th.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, BROMPTON, S.W.—Resident Clinical Assistant. Applications and testimonials to the Secretary, on or before November 4. Further information may be obtained at the Hospital.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Assistant-Physician. Must be M.R.C.P.L., or pledged to become so within twelve months. Applications and testimonials to the Secretary, on or before November 11.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Clinical Assistant. Gentlemen applying for this appointment must possess at least one qualification. Applications and testimonials to the Secretary, on or before November 11.

HULME DISPENSARY, MANCHESTER. — House-Surgeon. Must be duly qualified. Applications and testimonials to the Chairman of the Medical Committee, on or before November 6.

LIVERPOOL INFIRMARY FOR CHILDREN.—House-Surgeon. Medical and Surgical qualifications required. Applications and testimonials to the Chairman of the Committee, on November 11.

LONDON FEVER HOSPITAL.—Physician. The necessary qualifications are—F. or M.R.C.P.L. Applications and testimonials to the Secretary, at the Hospital, on or before November 7. Election on the 10th.

MIDDLESEX HOSPITAL MEDICAL COLLEGE.—Lectureship on Materia Medica. Applications to the Dean, on or before November 11.

NORTH DEVON INFIRMARY.—House-Surgeon. Must be M.R.C.S.E., and be registered. Applications and testimonials to Mr. John Bridgman at the Infirmary, Barnstaple, on or before November 4. Election on the 14th.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, CITY-ROAD.—Operating Surgeon. The qualifications required are—F. or M.R.C.S.E. not practising midwifery or pharmacy. Applications and testimonials to Mr. C. L. Kemp, on or before November 7. Election on the 21st.

ROYAL SURREY COUNTY HOSPITAL.—House-Surgeon. Must be duly qualified in Medicine and Surgery. Applications and testimonials to the Assistant-Secretary, Guildford, on or before November 6.

ST. GEORGE'S, HANOVER-SQUARE, DISPENSARY.—Physician-Accoucheur. Must be M. or F.R.C.P.L. Applications to the Honorary Secretary, 59, Mount-street, on or before October 30. Election the following day.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1861.

RESIGNATIONS.

Ashton-under-Lyne Union.—The Tenth District is vacant; area 820; population 19,981; salary £60 per annum.

Amersham Union.—The Chesham District is vacant.

APPOINTMENTS.

Honiton Union.—Walter Hugo Reed, M.R.C.S. Eng., L.S.A., to the Second A and Ninth B Districts. Frederick Morgan, M.R.C.S. Eng., L.S.A., to the Second B District.

York Union.—John J. F. Marshall, M.R.C.S. Eng., L.S.A., to the Third District.

THE *Gazette* of Friday, October 20, contains the announcement of Dr. Ogle's appointment as Inspector of Anatomy.

DR. CHAS. HILTON FAGGE, of Guy's Hospital, has been elected Physician to the London and Westminster Bank, in the place of the late Mr. Solly.

THE stipendiary magistrate of Salford last week sent a woman to prison for a month, for having exposed a shirt which had been worn by one of her sons, who had suffered from small-pox, without having had it previously disinfected.

DR. LEGRAND DU SAULLE, Physician to the Hospital of Bicêtre, in a work just published, entitled "Le Délire des Persecutions," has given a graphic account of the influence of political troubles on the different characteristics of madness.

IT is reported that, owing to proper sanitary precautions having been taken at the port of debarkation, there has been no epidemic outbreak amongst the 100,000 and upwards of hadjees or pilgrims that have visited Mecca this year.

A YOUNG man from Cardiff, named Howard, has drowned himself at Carlisle, who, in a memorandum, gave as his reason for self-destruction that the Darwin theory having proved men to be descended from monkeys, he did not desire to live.

PRELIMINARY EXAMINATIONS.—The next Examination in Arts, etc., for the diplomas of Fellow and Member of the Royal College of Surgeons, will take place on December 19, 20, and 21. Already a large number have entered.

THE HUNTERIAN COLLECTION.—By the death of Sir R. I. Murchison, Bart., there is another vacancy in the trustees of the Museum of the College of Surgeons, which, with that caused by the death of Mr. George Grote, will be filled up at the next meeting.

LIVERPOOL ROYAL INFIRMARY SCHOOL OF MEDICINE.—At the conclusion of registration at this School on October 20, the number of new students was 28; old students, 42; making a total of 70.

SMALL-POX IN POPLAR.—During last week six deaths from small-pox had occurred in the Poplar Union; nineteen new cases had been admitted. In the same week sixty-five persons had been vaccinated at the public station.

THE INDIAN MEDICAL SERVICE.—The *Homeward Mail* gives in its last impression the following. (We are not quite certain as to the meaning sought to be expressed, but the passage is at least equivocal):—"The uncertainty which attends the competitive examination for the Indian Medical Service is so great that young men are thoroughly discouraged in entering upon the necessary preparation."

QUEEN'S UNIVERSITY IN IRELAND.—On November 22 next, the Senate of the University will proceed to elect examiners for the next academical year in the subjects of Medicine, Surgery, Midwifery and the Diseases of Women and Children, Materia Medica, and Medical Jurisprudence. The salaries are—in the case of Medicine and Surgery, £100 each; in the remaining instances, £75.

MEDICAL SOCIETY OF THE COLLEGE OF PHYSICIANS, IRELAND.—At the General Annual Meeting of the Society, held on Wednesday, October 18, the following were elected office-bearers for the ensuing session:—*Council:* Samuel Gordon, James Little, Lombe Atthill, T. W. Grimshaw, Henry Kennedy, Thomas Hayden, William Moore, Robert Law, Thomas Fitzpatrick, Alfred H. McClintock, John Thomas Banks, and George Johnston. *Honorary Secretary:* Henry Eames.

ROYAL COLLEGE OF SURGEONS, EDINBURGH.—At the annual meeting of the Royal College of Surgeons of Edinburgh, held on the 18th inst., the following office-bearers were elected for the ensuing year:—*President:* William Walker. *Secretary:* James Simson, M.D. *Treasurer:* John Gairdner, M.D. *Librarian:* Archibald Inglis, M.D. *President's Council:* Andrew Wood, M.D.; Robert Omond, M.D.; James Dunsmure, M.D.; James D. Gillespie, M.D.; James Spence; Henry D. Littlejohn, M.D.—*Ex Officio:* John Gairdner, M.D. *Examiners:* Archibald Inglis, M.D.; Robert Omond, M.D.; James Dunsmure, M.D.; Peter David Handyside, M.D.; James D. Gillespie, M.D.; H. D. Littlejohn, M.D.; Patrick H. Watson, M.D.; David Wilson, M.D.; John Smith, M.D.; Argyll Robertson, M.D.; Joseph Bell, M.D.; Thomas Annandale. *Assessors to Examiners:* James S. Combe, M.D.; William Brown; James Spence; James Simson. *Conservator of Museum:* James B. Pettigrew, M.D. *Assistant to Conservator:* James Grandison. *Officer:* John Dickie.

Professor Wyville Thompson, of the Queen's College, Belfast, was on Friday, October 20, presented with a testimonial on occasion of his removal to the Chair of Natural History in the University of Edinburgh. The Mayor of Belfast presided. Professor Redfern read an address, and presented Professor Thompson with four splendid dessert-stands and centre, and a handsome claret jug.

Proceedings of the Royal College of Surgeons.—At the last meeting of the Council, on the 19th inst., the President, Mr. Busk, reported the death of Mr. Samuel Solly, F.R.S., and added that the vacancy would not be filled up until the annual meeting of the Fellows in July next. Mr. Smith, the senior member of the Council, then proposed the following resolution, seconded by Sir William Fergusson, Bart.:—"That the President be requested to convey the sincere condolence of this Council to Mrs. Solly and her family on the irreparable loss they have sustained by the death of Mr. Solly." The thanks of the Council were unanimously voted to Mr. Francis Kiernan, F.R.S., F.R.C.S., for his valuable donation of pathological specimens to the museum. The following report of the 16th inst. of the Committee on the Financial Arrangements proposed in the Draft Scheme for an Examining Board for England was read, viz.:—

"Your Committee, appointed by the Council on the 24th of July last, 'to consider and report to the Council on the Financial Arrangements included in the Appendix' to the Draft Scheme for an Examining Board for England, have held two meetings, on the 31st of July last and on this date, and, having considered the same, have agreed to the following Report to the Council, viz.:—

"That the following are the propositions contained in the Appendix to the Draft Scheme, viz.:—

"That one-half of the Fees received for the Examinations be appropriated to the payment of Examiners, Assessors, and other expenses incidental to the Examinations, in such manner as the Committee of Reference may determine, subject to the approval of the co-operating Medical Authorities.

"That the remaining half of the Fees received for the Examinations be appropriated in the following manner:—

"Towards the maintenance of the Museum of the Royal College of Surgeons as an Institution of National as well as Professional importance, for its unendowed Professorships, and other allied expenses	One-third
"In respect of Medical Qualifications to be granted	One-third
"In respect of Surgical Qualifications to be granted	One-third

"And that, in the opinion of your Committee, the said propositions should be adopted by the Council, with the following alterations, viz.:—

"That the Fees received for the Examinations be appropriated to the payment of Examiners, Assessors, and other expenses incidental to the Examinations, in such manner as the Committee of Reference may determine, subject to the approval of the co-operating Medical Authorities; and that the residue be divided in the following manner, viz.:—

"Towards the maintenance of the Museum of the Royal College of Surgeons as an Institution of National as well as Professional importance, for its unendowed Professorships, and other allied expenses	One-third
"In respect of Medical Qualifications to be granted	One-third
"In respect of Surgical Qualifications to be granted	One-third

"Richard Quain, Chairman."

Moved by Mr. Clark, and seconded by Mr. Hawkins—"That the report of the Committee be adopted;" whereupon the following amendment was proposed by Mr. Hancock, and seconded by Dr. Humphry—"That the financial arrangements, as originally proposed in the Appendix to the Draft Scheme for an Examining Board for England, be adopted, in lieu of those contained in the report from the Committee." The votes of the Council having been taken on the amendment, a majority was in favour thereof. The sum of ten guineas was voted towards the memorial window to John Hunter in Kensington New Church, on the application of Messrs. Buckland and Merriman, the honorary secretaries.(a) The Secretary reported that Mr. Charles Hawkins had offered for the acceptance of the Council a small coloured engraving of the picture of "Henry VIII. presenting the Charter to the Barbers and Surgeons."(b) The donation was accepted, with thanks. Mr. John Gay gave notice of the following motion at the next meeting of the Council, viz.—"That the proportionately large number of rejections at the preliminary examination for the diploma of the College was a fact which demanded the serious consideration of the Council; and that a committee be appointed to consider the subject, and to report to the Council thereon."

Chloral in Cholera.—During the epidemic which has recently prevailed at Riga, Dr. von Reichard has had recourse to chloral, administering it according to the following indications:—"1. To relieve the cramps at the commencement. 2. To assuage the præcordial suffering which is so distressing during the latter stages. 3. To arrest vomiting. 4. To procure the sleep so urgently demanded by the patients. Not only were these indications fulfilled, but the success obtained from the medicine surpassed all expectation. In one case in which the ordinary treatment had been pursued, and the patient seemed as if he had only a few hours to live, a drachm of chloral was given him in four times the quantity of water, so that a strong sense of burning was felt while swallowing it. In two minutes sleep had commenced, and, troubled at first, it became calm, and lasted three hours. Respiration became easier, the warmth and turgescence of the surface reappeared, the cholera *facies* disappeared, and the pulse diminished from 130 to 90. The vomiting and stools ceased, and, in fact, a true resurrection was effected, the patient rapidly recovering. M. Blumenthal, also of Riga, has employed it successfully in two bad cases, giving the chloral in doses of a drachm, which were repeated two or three times within the hour.—*Union Méd.*, Oct. 17.

Treatment of Fracture of the Clavicle by Adhesive Plaster only.—Dr. Sayre, of New York, has finally reduced the treatment of this fracture to two strips of adhesive plaster, without any axillary pad, and believes it to be the simplest and most efficacious plan yet devised. His method of keeping the inner portion of the clavicle from riding over the outer portion is by putting the clavicular portion of the pectoralis major muscle on the stretch, and compelling it to pull the clavicle in place, and thus overcome the tendency of the clavicular portion of the sterno-cleido-mastoid to elevate it, which it always will do unless this precaution be taken. After drawing the arm backward, and retaining it there by a strip of adhesive plaster, pass another piece from the well shoulder across the back, and, by pressing the elbow well forward and inward, the first plaster around the middle of the arm is made to act as a fulcrum, and the shoulder is necessarily carried upward, outward, and backward; and the plaster, being carried over the elbow and forearm (which is flexed across the chest) to the opposite shoulder, the place of starting, and then secured by pins or stitches, permanently retains the parts in position. Dr. Sayre uses strong and good adhesive plaster (Maw's moleskin being the best), cut into two strips three or four inches wide, and narrower for children. The patient can resume even laborious manual labour immediately after the application is made. The union takes place perfectly, without deformity.—*New York Medical Record*, August 15.

(a) It may not be generally known that the Council has already subscribed the large sum of £420 towards the statue of Hunter, the removal of his remains to, and reinterment in, Westminster Abbey, with memorial brass, independent of private subscriptions of individual members of the Council.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Dr. Young, Salisbury.—Your wishes shall be attended to.

Dr. Leslie, Battersea.—The matter was settled by the General Medical Council, and we cannot reopen it.

A Foreign Subscriber.—The volume of the Reports is still in print, and may be obtained of Messrs. Longmans and Co., Paternoster-row, E.C.

Aliquis will be allowed to register if he made application to the Secretary of the College.

A. N.—The work mentioned is an excellent one on the subject on which it treats.

Inquirer.—Nearly every Hospital in London has a pharmacopœia of its own. A copy of each may, no doubt, be obtained without difficulty.

Censor is right; the quotation should be as follows:—

"Why drew Marseilles' good Bishop purer breath,
When Nature sickened, and each gale was death?"

A. C. Cameron.—A "burr" is a peculiar mode of sounding the letter "r, common especially in the neighbourhood of Berwick. The sound is something like a mixture of "cb" and "r."

(b) This is an interesting little picture of great rarity, unknown to the authorities at the British Museum.

Student.—The Medical school in connexion with the Harvard College, Cambridge, Boston, Mass., is in North Grove-street, Boston. Affiliated with the original academic foundation are the four Professional schools of law, theology, Medicine, and science. Of late years the standard of study has been greatly raised, the curriculum has been extended, and means have been afforded for advancing in special pursuits those who develope a strong aptitude for them. It is the oldest—1639—institution of the kind in the United States.

Quint.—One pound *per* week during the first five weeks is a good beginning, but we doubt if it will do to continue the reducing process at so fast a rate. We should be satisfied, now, with a quarter of a pound per week, or about 250 grains *per diem*. Continue to exclude sugar and fat, but take a little more mashed turnip or other cruciferous vegetable.

Dr. Charles Royston.—Breaches of Professional etiquette such as those detailed in our correspondent's letter are, we hope, very uncommon. It is certain that, as the gentleman mentioned was the *locum tenens* of Dr. Royston, he was bound to cease to have any connexion whatever with Dr. Royston's patients after Dr. Royston's return. Nothing can justify such grave breaches of etiquette. They do more to injure us in the eyes of the public than anything else could do. It is useless to talk of elevating the character of the Profession by improved preliminary education, better laws, and a shorter curriculum if we attempt thus to forestall one another.

Postal Charges on Circulars.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—About a week ago I posted a number of circulars, directed to various gentlemen of the Medical Profession. I have since learnt, to my great annoyance, that the Post-office officials have demanded an extra 1d. on delivery of a number of them, on the ground that they were "closed against inspection." On reference to the one I enclose, I am sure, sir, you will agree with me that such a charge is, on the face of it, ridiculous, as, being open at both ends, every word it contains may be read with ease. I trust you will give publicity to these facts, as I cannot tell how many gentlemen are feeling naturally annoyed, and perhaps prejudiced, at what they no doubt think my impertinence in sending them circulars for which they have to pay. I have written to the Postmaster-General for explanation, but, although a week has since elapsed, I have not received any acknowledgment of my letter. I am, &c., W. C. Westerton.

85, Abingdon-villas, Kensington, W., October 24.

Curious Eccentricities in Medical Etiquette.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—The best thanks of our "noble Profession" are due for the manly letter of "An Oxford Man," published in your last number, exposing as it does, in the most gentlemanly yet candid manner, a few of the abuses—and their name is Legion—which afflict the body corporate of our calling. To take a familiar example, what can be more contemptible in the sight of gods and men than the grudging respect evinced by some elderly, purblind Practitioner, dropping into dotage, towards a man who may be some twenty years younger than himself? and how can we reconcile the title of "liberal Profession" with the conduct of its members, who greedily grasp office long after their talents, if they ever possessed any, have been in abeyance? That rapacious greed of office which prevents men from retiring at a befitting age, when they can yet do so with dignity and self-respect, is one of the most unseemly features of Medical life, and its effect is so injurious on the prospects of the Profession that it is almost to be wished some inter-Professional law could be enacted, rendering the resignation of public appointments after 60 or 65 years of age actually compulsory.

I am, &c., Another University Man.

Octoæa.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—The prosperity of the wicked puzzled the Psalmist; Talleyrand passed a sleepless night wondering what another diplomatist *meant* by having scarlet fever. The longer one is in practice the greater the perplexity to account for the amount of suffering and the number of children inflicted upon women.

Many girls never menstruate until marriage, and the pain at the regular periods is occasionally acute. "I lock myself up, and writhe on the floor with agony," confessed a religious handsome patient. To-day a very pretty woman, under treatment for uterine neuralgia, affords the following history:—Married at 17; has given birth to eight living children, five of whom died of convulsions, bronchitis, or diarrhœa. She has aborted seven times—in short, to sum up, although scarcely 30 years of age, making a general total, she has started fifteen children. During pregnancy intolerable tingling of the feet causes indescribable torture. Her sisters incline to twins, and her mother, after giving birth to fifteen children, died of uterine cancer.

The month of October is very trying to nursing mothers. To-day three ladies are suffering from pneumonia: their young infants, suddenly deprived of breast-milk, become all the more liable to hooping-cough, especially if animals (without including Hampstead donkeys) are kept in the house. A few months ago a child affected with the latter complaint, and smuggled on board a vessel at Bombay, communicated the disease to a number of others. Returning through the Suez Canal, stopping at Malta, Gibraltar, and Plymouth, at last Woolwich was reached without the coughs abating. In many instances it is judicious to give such children quinine during the day, belladonna at night, plenty of milk and lime-water, and to keep them out of doors constantly in fine weather. Chloral hydrate does harm. Certainly the child sleeps, the cough persisting, but next morning there will be increased lumbar debility, disinclination to get up or to eat—*ergo*, greater prostration, the paroxysms will be more numerous and violent. In October unpleasant recollections of hot climates are forced upon dyspeptics as well as on ladies and children. On one occasion three women in contiguous beds, recently confined, developing alarming symptoms, great was the relief to diagnose the fevers of Malta, the Mauritius, and Peshawur instead of the puerperal variety. Some Indian fevers are shaken off by migration to Nova Scotia; and many subjects intolerant of quinine swear by Warburgh's tincture. Old Indians now suffering from liver risk their lives by taking Turkish baths, our best remedy for chronic rheumatism. A number of brain-workers who have damaged themselves by incessant travel or Alpine feats in the holidays also suffer. Two years ago a distinguished officer, whose love night and day was ever too much in his work, when sent hygienically to Maidstone Gaol, returned as fresh as paint. Excruciatingly painful chilblains now may be averted by taking iron and strychnine to improve circulation, by wearing flannel over the stomach, a galvanic chain down the leg, taking plenty of exercise, and applying local stimulation. We must be careful about vaccination: children at this season are so liable to bronchitis and epidemic ailments.

When the leaves begin to fall, the old and the young suddenly swelling the bills of mortality, will it be heartless to suggest that Medical men should be spared the mental distress of attending funerals?

Ourselves fathers of families, heartily we sympathise with a parent bereaved.

> "Grief fills the room up of my absent child,
> Lies in his bed, walks up and down with me,
> Puts on his pretty looks, repeats his words,
> Remembers me of all his gracious parts,
> Stuffs out his vacant garments with his form."

But other patients have to be considered. The battle with death requires a cool head and calm judgment, matured by experience; nor are we exempt from private troubles—either a drunken partner, a sickly wife, or the struggles of poverty will sorely try many A Practitioner.

Medical Appointments in the Militia and other Reserve Forces.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—In Lord Northbrook's clear and able speech, when bringing the Army Bill before the House of Lords last July, it was stated that part of the Government plan of army reform consisted in the determination to allow officers of the line to go on half-pay after a comparatively short period of regular army service, on condition that they agreed to serve in the militia. If this is actually to be the case, it would obviously be unfair if the same rule is not extended to the Medical officers of the regular army, who should certainly be allowed to go on half-pay and join the militia after comparatively short service, quite as much as the combatant officers. With respect to the latter, comparatively short service can never be held to mean twenty years' service; it must mean after service far, far short of that number of years; and if the combatant can go after a few years to the militia to suit his own taste, and at the same time to give promotion in the service he left, to refuse the same boon to officers of the Medical branch of the army, and the acceleration of promotion consequent upon it, would be rank injustice. Besides, it must be remembered that all the years during which he is learning his profession count to the combatant as service, while the years during which the Medical man is learning his Profession are not counted at all to him as service, being previous to the period when he joined the army; so that, in nine cases out of ten, he joins the service an older man than the combatant, and if either ought to be allowed to retire before the other, it certainly ought to be the Medical officer. Besides, if the reserve forces of the country exist in any numbers, it would probably be found quite impossible to find sufficient Medical officers for them, if reserve Medical officers were only selected from those who were willing to join them after twenty years' service in the first line—and let us hope that it will become an absolute rule that no Medical appointment in the militia, or in any other reserve force, shall be held by any Medical man who has not served a certain time in the regular army. It is a strange anomaly that promotion should be slower in the Medical than in the combatant branch of the army, when we consider, as mentioned before, that the time he is learning his profession as a young officer counts towards promotion for the combatant, who, it may be further remarked, is taught his profession by the State, receiving pay while he learns it; while the Surgeon, on the other hand, enters the service with his Profession ready learned. And what assistance or pay did he receive when at Medical School or College he was acquiring his knowledge?—None from the State, certainly. And yet this qualified man is kept in the position of a subaltern for fifteen or sixteen years—learning what?—and examined again before promotion. As if any examination could test the power of applying knowledge, without the possession of which he ought never to have been permitted to enter the army at all! Have fifteen or sixteen years of Medical subaltern work a tendency to cause improvement, or to set up a process of deterioration? But in the formation of reserves, Government have a chance, if they will only use it, of enabling men tired of the service in part to leave it, and a certainty that, by their retiring, acceleration of promotion throughout the Department will be the result. And let us remember that if once we lose the entire reserve forces as a retiring field for the Medical officers of the regular army, and allow civilians to creep in, we shall have lost what we may never regain. Let only the rule be absolute, that no civilian shall hold any Medical appointment in the reserve forces of the country, and quick promotion for some, and optional early retirement for others, must follow. And let us hope that contentment will reign where grumbling and discontent have reigned for years. Perhaps the Medical press will help us to obtain this one key of the whole position, by keeping the subject before the authorities; and perhaps Mr. Cardwell may not consider it beneath his notice to try and reform even the Medical Department of the army. Nothing can be worse for the life of a military department than to have men keeping up their connexion long after they have lost all interest in its work, disgusted by being kept long in a subordinate position, or who never were fitted for an army life, and yet who, once in the service, hang on, year after year, perhaps for fifteen or twenty years, in order to obtain a pension, they believing that they cannot afford to leave, as there are no openings into semi-civil life (such as would be formed by throwing open the reserve Medical appointments) for them to slip into; and should Mr. Cardwell neglect to use his present splendid chance of getting rid early of all those who, for some reason or other, are not well fitted for the regular army, increasing the flow of promotion to an extent difficult to calculate, and should stagnation, whether tempered by jobbery or not, but certainly accompanied by discontent, be the future state of the Army Medical Department, he cannot grumble if the evil is laid at his door. On what terms (as to pay, claim to pension, etc.) men should be allowed to enter the reserve from the first line is not a matter of such great consequence just at first, if only the principle were once introduced that Medical officers of the regular army could claim sufficiently early to go on half-pay on condition of joining the reserve, whether it be called militia or by some other name. Let the rule allowing the combatant officer to join the reserve after comparatively short service be extended to the non-combatant officer. If the terms first offered failed to attract sufficient numbers, they could be altered; and we may be pretty sure that terms would soon be hit upon that would both pay the State and suit individuals. Perhaps men might even be found to give up their claim to pension, if allowed, when once in the reserve, to engage in private practice. In fact, the chance of engaging in private practice might be made to stand in lieu of pension—an obviously paying plan for the State. And as men, when finding their private practice increas-

ing so that they could not attend properly to their public duties, would either voluntarily retire out of even the reserve into complete civil life, or be called upon to do so, a certain number of reserve appointments would by this means be falling vacant every year. A reserve appointment would hardly give employment entirely to anyone, and a Surgeon had far better engage in private practice than rust. Besides, if the engaging in private practice was prohibited, the reserve appointments would have to be better paid, and men would stick on, retarding promotion; but for any hope of a rapid flow of promotion through the reserve retirements into it, it must be allowed at a comparatively early period of life. Medical officers of twenty years' regular army service would not take kindly to private practice in most cases, and are after that service entitled to pension, which of course they would not give up. With respect to men who have already retired upon their pensions, they certainly ought not to be offered a fresh start in the reserve. They have taken their retirements, and gone absolutely. No promotion in the present Medical Department would be given by filling up the militia and other reserve Medical appointments by men who have already accepted terms of absolute retirement. When we consider that the reserve forces of the country will equal, probably exceed, in numbers, the entire regular army, we may calculate what an enormous number of appointments there would be for the regular army Medical officers if they could only be retained for them, as in justice they ought to be, and how promotion would be accelerated. What an opportunity for Mr. Cardwell thoroughly to revivify one part of the army! Let us hope that he will not throw such a chance away. It is all in accordance with his own ideas, also, to pass regular army men and officers on to the reserve. Let him carry out those ideas with respect to the Medical branch of the army.

I am, &c., DELTA.

COMMUNICATIONS have been received from—

Mr. W. J. Loraaine; Mr. J. Robertson; Mr. J. G. Richardson; Mr. T. Holmes; McHaon, jun., M.D.; Dr. Phillips; Another University Man; Mr. R. Harrison; Dr. E. Young; Dr. Playfair; Mr. Amyot; Mr. Soutter; Dr. Rogras; Dr. William Vawdrey Lush; Mr. Metcalfe Johnson; Dr. James Russell; Dr. Althaus; Mr. J. Chatto; Dr. F. R. Hogg; Mr. Liebreich; Dr. John Waro Cousins; Dr. Day; Mr. Marcus Allen; Mr. North; Mr. D. T. White; Mr. Puddicombe; Mr. W. W. Reeves; Mr. Silburn; Mr. A. C. Cameron.

BOOKS RECEIVED—

Anæsthesia, Hospitalism, Hermaphroditism, and a Proposal to Stamp out Small-pox and other Contagious Diseases, by Sir James Y. Simpson, Bart.—Report of the Commissioners of Her Majesty's Customs—Report on Spiritualism of the Committee of the London Dialectical Society—Transactions of the Odontological Society, April and May—Introductory Address delivered at the Liverpool Royal Infirmary School of Medicine, by Dr. W. Carter—Wilson Fox on the Treatment of Hyperpyrexia—Drysdale on Modern Medicine and Homœopathy—Macvicar on the Normal Products of Hepatic Action—Dr. Budd on Asiatic Cholera in Bristol in 1866—Liverpool Medical and Surgical Reports, vol. v.—Homo *versus* Darwin—Report of the Royal Albert Asylum for Idiots and Imbeciles, Lancaster—Cameron on the Prevention of Infectious Disease—A Record of the Progress of Cholera in Southern India in 1870.

PERIODICALS AND NEWSPAPERS RECEIVED—

Nature—Pharmaceutical Journal—The Scotsman—The New York Medical World—Journal of the Boston Gynæcological Society, October—The Scarborough Gazette.

APPOINTMENTS FOR THE WEEK.

October 28. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; King's, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

30. *Monday*.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Medical Society of London, 8 p.m. Mr. Victor de Méric, "A Case of Traumatic Phthisis." Dr. Alfred Wiltshire, "Œdema of the Lung following Small-pox." Mr. F. W. Teevan will exhibit some Instruments. Mr. John Pennefather, "On the Sense of Hearing" (with illustrations).

31. *Tuesday*.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

November 1. *Wednesday*.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 2 p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Obstetrical Society, 8 p.m. Dr. Rasch, "On a Novel Way of using the Uterine Sound in Flexions of the Uterus." Mr. Eugene Goddard, "On a Case of Ovariotomy during Pregnancy." Dr. Conrad (of Pesth), "On Prolapse of the Female Genital Organs."

Royal Microscopical Society, 8 p.m. Dr. Robt. Braithwaite, "On Bog Mosses." Dr. J. J. Woodward (U.S.A.), "On the Scales of *Degeeria domestica* as seen with Black-ground Illuminations." Mr. W. S. Kent, "On some New Infusoria."

2. *Thursday*.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; West London, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

3. *Friday*.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

VITAL STATISTICS OF LONDON.

Week ending Saturday, October 21, 1871.

BIRTHS.

Births of Boys, 1077; Girls, 1011; Total, 2068.
Average of 10 corresponding weeks, 1861-70, 2005·3.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	672	619	1291
Average of the ten years 1861-70	677·8	627·4	1305·2
Average corrected to increased population	...	...	1436
Deaths of people aged 90 and upwards	...	...	...

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561189	2	4	12	2	6	3	...	1	6
North ...	751668	26	12	6	...	4	1	6	1	9
Central ...	333887	5	5	3	1	4	...	2	3	3
East	638928	9	4	7	...	2	4	4	2	12
South	966132	11	9	12	3	7	3	3	2	16
Total	3251804	53	34	40	6	23	11	15	9	46

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·744 in.
Mean temperature	53·5°
Highest point of thermometer	68·4°
Lowest point of thermometer	34·5°
Mean dew-point temperature	50·8°
General direction of wind	Variable.
Whole amount of rain in the week	0·55 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, October 21, 1871, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1871.*	Persons to an Acre. (1871.)	Births Registered during the week ending Oct. 21.	Deaths Registered during the week ending Oct. 21.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	Rain Fall. In Centimetres.
London	3263872	41·8	2068	1291	68·4	34·5	53·5	11·95	0·55	1·40
Portsmouth ...	113450	11·9	72	49	66·8	39·6	54·6	12·55	0·39	0·99
Norwich	80533	10·8	47	48	63·0	33·5	51·7	10·94	0·36	0·91
Bristol	183298	39·1	100	96	...	...	...	...	...	...
Wolverhampton ...	68476	20·2	43	52	65·2	39·8	52·6	11·44	0·80	2·03
Birmingham ...	344980	44·1	258	158	65·7	33·8	49·3	9·61	0·48	1·22
Leicester	95882	30·0	76	52	65·2	35·2	53·3	11·84	0·43	1·09
Nottingham ...	86929	43·6	57	44	67·4	37·2	53·3	11·84	0·38	0·94
Liverpool	493649	96·8	326	292	62·1	40·2	52·7	11·50	0·74	1·88
Manchester ...	356099	79·4	224	204	67·0	37·0	53·3	11·84	0·81	2·06
Salford	125422	34·3	97	84	66·5	37·9	52·5	11·39	0·98	2·49
Bradford	146987	22·3	97	66	65·7	42·5	55·9	13·28	0·63	1·60
Leeds	260657	12·1	245	125	66·0	39·0	53·8	12·11	0·93	2·36
Sheffield	241507	10·6	192	132	65·0	38·5	53·3	11·84	0·64	1·63
Hull	122266	34·3	90	44	63·0	37·0	52·0	11·11	0·72	1·83
Sunderland ...	98797	29·9	57	63	...	...	...	...	...	...
Newcastle-on-Tyne	128677	24·1	73	74	62·0	40·0	51·7	10·94	1·20	3·05
Edinburgh	201728	45·6	140	104	64·7	36·0	51·9	11·06	0·30	0·76
Glasgow	479227	94·7	366	253	...	...	...	...	...	...
Dublin (City, etc.)	310565	31·9	170	141	64·9	35·0	52·5	11·39	0·69	1·75
Total of 20 Towns in United Kingd'm	7204001	33·8	4798	3372	68·4	33·5	52·8	11·56	0·65	1·65

At the Royal Observatory, Greenwich, the mean reading of the barometer in the week was 29·74 in. The highest was 30·00 in. at the beginning of the week, and the lowest 29·52 in. on Thursday morning.

* The figures in this column are the unrevised numbers enumerated in April last, raised to the middle of the year by adding 1-40th of the rate of increase which prevailed between 1861 and 1871. As the population of Dublin and its suburbs showed a decline between the Censuses of 1861 and 1871, the enumerated number in April last has been inserted for that city, the population being assumed to be now stationary.

HYGIENE.—ECONOMIE.

Cheap and Pure Wines, especially recommended in Dr. Druitt's "Report on Cheap Wines."

Per Doz. in London.	Per Doz. in London.
GOOD CLARET (Bordeaux)... 12s.	PURE GRAPES COGNAC (°65) 42s.
CHATEAU FRONSAC ... 16s.	CHAMPAGNE, Dry qlty., from 32s.
MERCUREY, White and Red (Burgundy) ... ... 18s. (Specially recommended.)	Dry and Light SHERRY and PORT ... ... from 30s. (First-class.)

All warranted; with a great variety of other Wines ready for supply in sample dozens.

EDWARD GOLBERGER, 63, DEAN-STREET, OXFORD-STREET, W.; and Libourne, near Bordeaux.

HUNGARIAN WINES

Mr. MAX GREGER (from HUNGARY)

WINE MERCHANT TO HER MAJESTY THE QUEEN AND THE GENTLEMEN OF THE HOUSE OF COMMONS,

Begs to inform the public that he has appropriated a convenient room above his vaults at 7, MINCING-LANE, E.C., and 2, OLD BOND-STREET, W., London, where every description of Hungarian Wines can be tasted free of any expense.

Ready for supply, sample dozen cases, each containing two bottles of six different kinds of such wines, which are highly recommended by the Medical Faculty. Prices at 30s., 36s., and 44s. per case. Carriage free. Cash on delivery.

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ORIGINAL LECTURES.

CLINICAL
LECTURES ON OPHTHALMOLOGY,

DELIVERED AT

St. Thomas's Hospital,

By R. LIEBREICH,
Ophthalmic Surgeon and Lecturer to the Hospital.

Lecture III.

EXAMINATION OF THE EYE WITH THE OPHTHALMOSCOPE.—(*Continued.*)

Gentlemen,—Having obtained a general aspect of the fundus, you may direct your attention to the optic disc. In order to observe this important part, it is necessary to make the patient turn his eye twenty degrees inwards towards the nose, and to make him fix his eye on a point on a level with your own eye. You will then immediately recognise the optic disc by the vessels of the retina which emerge from its surface. The aspect of the optic disc in the normal eye offers no fewer variations than that of the choroid.

In order to analyse well these variations, it is necessary to understand the signification of certain lines, drawings, and shadows appearing in the optic disc under the illumination given by the ophthalmoscope. There are, first, three different lines in the periphery of the optic disc, to which I gave the names of choroid limit, sclerotic limit, and nervous limit. The choroid limit is the external contour of the papilla. It indicates the edge of the choroid foramen, through which the optic nerve passes. This limit is ordinarily very sharp, and forms, by a stronger pigmentation, sometimes a fine dark circle, sometimes a more or less black crescent, or even a large black circle. The sclerotic limit is not so easy to distinguish. It is more visible in some pathological cases than in the normal eye. It forms a fine, clear, white circle, or ordinarily only half a circle, near the choroid limit, and it is produced by the light reflected from the edge of the sclerotic, where it extends backwards to form the sheath of the optic nerve.

By the side of this white line the darker periphery of the nervous substance is marked by a very fine grey line—the nerve limit proper. Starting from this line to the centre, we find a very delicate shading forming a lighter centre. In this lighter central part we recognise in a certain number of physiological cases a very characteristic drawing, forming a network, the *clear* lines of which represent the connective tissue of the "*lamina cribrosa*," while the grey meshes represent the transverse aspect of the nervous fasciculi which pass through the network of the lamina cribrosa. The clearness and extent in which we see this central drawing depends upon the form of the papilla, and especially upon the form, size, and depth of its physiological excavation. The variations of this are very numerous. Making transverse sections of the anterior part of the optic nerve, you will find the anterior contour of the papilla sometimes almost flat, sometimes prominent in the periphery, and with a little depression in the centre. Sometimes this latter is more marked, and has the form of an *infundibulum*, or it even constitutes a large and deep excavation descending very near to the lamina cribrosa. If the anatomical section you have made were vertical, the excavation would occupy the centre; but if your section were horizontal, the excavation would always be situated on the temporal side of the centre, and could even reach to the contour of this side. It would never be formed on the nasal side of the optic disc. These modifications have the greatest influence on the general aspect of the papilla and its colour.

It is very important to study these variations of colour, so as not to make the mistake of taking for pathological changes some exceptionally decided individual, but only physiological, appearances. The normal optic disc has sometimes an equal reddish-grey colour; sometimes it is grey in the periphery, and has a very clear luminous centre. In some cases it appears nearly as red as the fundus; and it is in such cases chiefly that we often find established the diagnosis of congestion of the optic nerve,—while I proved that this red colour is not produced by a stronger vascularisation of the optic nerve itself, but only by an optic effect depending upon the choroid. If the border of this membrane encircles the optic disc more closely, the light, after having traversed the choroid and become red, gives, by dispersion, a red aspect to the papilla. I give the proof of this by the following experiment:—

Whilst examining the straight image, I formed with the mirror a very small inverted image of the flame. If this little image of the flame appears in the centre of the optic disc, the latter shows its ordinary colour and outlines. If, on the contrary, by a slight movement of the mirror the image of the lamp is placed in the choroid close beside the papilla, the latter seems to be entirely red, because it is illuminated only by light that has traversed the choroid before reaching the optic nerve.

The manner in which the vessels of the retina are extended upon the optic disc increases, by its variations, the number of different aspects of the papilla in its normal state.

I should say that these variations are almost as numerous as those of the human face, and you will scarcely find the two optic discs of two different individuals perfectly alike. It is, therefore, far more difficult to decide in a given case whether the optic disc is normal than it would be in regard to the choroid. Even very experienced observers may be deceived by the aspect of exceptional appearances. I will just tell you of a case which was submitted to me the other day, and which will show you the disagreeable consequences of such a mistake. An American Physician, whilst working at the microscope after his recovery from malarial fever, suddenly observed that his sight was failing. This soon increased so much that he could not only not work with the microscope, but could not even read or write so long as usual, his eyes becoming also very sensitive to light. He consulted a distinguished ophthalmologist of his country, whose diagnosis was—retinitis; and after unsuccessful treatment he was advised to give up his practice and to go to Europe. Here, again, he consulted the authorities of different countries, all of whom confirmed the first diagnosis. Thus one year passed, during which the state of his vision remained unchanged. Lately he came to see me, and I found the acuteness of his vision normal: the asthenopia dependent on hypermetropia complicated with insufficiency of the recti interni. In examining his eye with the ophthalmoscope, I could then conceive how the reddish colour of the papilla, the unusually tortuous arteries of the retina, and an exceptionally strong reflection of the nervous substance caused the mistake. Having frequently seen the state just described in perfectly normal eyes, I did not hesitate to consider the case one of simple asthenopia, which diagnosis was soon confirmed by the effects of decentrated convex spectacles. I ventured even to say that, had there been a retinitis before, some visible marks, at least, must have remained as the consequences of the inflammation.

Beyond the papilla the configuration of the vessels of the retina is more uniform, and takes, at least so far as regards the principal branches, nearly always the same direction. This is the reason why it is possible to make the vessels serve as an indication in determining the places in which we have observed some changes. For this purpose I have given, in the first edition of my "Atlas," Plate I., a network of vertical and horizontal lines, each corresponding to a number or a letter serving as an indication of one point in the fundus.

The retina itself exerts only a small influence on the aspect of the normal fundus. Being nearly transparent, it reflects only a very small quantity of light, giving that peculiar hazy appearance which we see the more distinctly as the choroid is darker, because, in such cases, the weak light from the retina is not so completely overpowered by the light returning from the choroid. In children the retina reflects the light with more intensity, and forms a real lustre, most strongly pronounced near the papilla and the great vessels, forming illuminated circles around the "*macula lutea.*"

The macula lutea or yellow spot, the centre of the retina, merits, from its great physiological importance, our particular attention, and it is generally insufficiently investigated. It is true that, by reason of its position in the centre, and the stronger contraction which the illumination of the most sensitive part of the retina produces, but especially from the absence of more striking outlines, that this point is more difficult to observe than any other in the fundus. Thus it happened that a very distinguished observer denied the presence of any characteristic sign in the macula lutea, even after my detailed description of this part. The characteristic signs of this important point are the following:—In the irregular round spot, the size of which is nearly equal to that of the optic disc, the choroid shows a darker pigmentation, both in the epithelium and in the tissue, so that, in dark eyes, this part appears almost black. In the centre of this spot appears a very small reflection, forming either a luminous point or a little ring. This is the reflection of the central foramen.

Surrounding this latter we observe a clear yellow film before the choroid, the more intense as it is nearer to the foramen, occupying a different part of the macula lutea in different eyes. This yellow colour is situated in the retina, and is, as I proved many years ago, not merely a cadaveric phenomenon, but exists also in the living eye, although to a smaller extent and with less intensity.

The reflection of the retina, of which we have spoken before as dependent upon the anterior layer (the nerve-fibres), is completely absent in the whole macula lutea, which does not contain a real layer of nerve-fibres.

The great vessels of the retina do not approach the central part, but small branches are directed from all sides to the border of the macula lutea, and often pass even through this place, the only characteristic of which, indicated by Jäger, should be the absence of vessels. It is difficult to observe all the characteristic signs of the macula lutea in old persons, but you will easily discover them by observing children with dilated pupils, in the inverted and also in the direct image.

THE

DISCUSSION ON PURULENT INFECTION

AT THE

PARIS ACADEMY OF MEDICINE.

By Professor VERNEUIL.

(*Continued from page* 521.)

En résumé, septicæmia may occur in our Surgical wards:

1st. By auto-infection, starting from the morbid spot, and either favoured by the anatomical condition of that focus, or by the previous or acquired constitutional state of the patient.

2nd. By hetero-infection, also introduced through a wound and by means of the inoculation of the palpable contagion, or the contact with the septic particles in the air.

3rd. And, probably, by hetero-infection having its source in the surroundings, but choosing the respiratory mucous membrane for the door of entrance, as though the wound did not exist, and as though the patient were simply exposed to the mephitism of poisoned air.

It is impossible to know anything as to the degree of frequency of these three modes of origin, and this will be the more difficult to find out, inasmuch as in a good number of cases the three are doubtless associated. All that can be affirmed just now is the existence of the two first. Auto-infection is undeniable; it explains the cases of sporadic septicæmia and those in which the morbid focus is absolutely shielded from the direct action of the atmosphere (osteo-myelitis, etc.). To reject hetero-infection would be a denial of positive evidence, and would deprive us of the only possible explanation of the endemic and epidemic forms of Surgical septicæmia.

Although the auto-infection, in my opinion, plays the most important part, I should be the first to defend hetero-infection if anyone were to deny it. I doubt not but that M. Guérin will be opposed to these views, and will not admit of so many ways of penetration for the poison. If I understand rightly, he rejects auto-infection in the name of physiology; he also rejects hetero-infection from immediate contagion, and offers, as a contrary argument, the immunity of Surgeons and nurses. This argument, however, is anything but decisive; and if it were it would overthrow the theory of miasmata at the same time. He even rejects hetero-infection by inoculation—that is to say, in dissecting-wounds, contracted either in the anatomical theatre or in the course of an operation. Nor does he pronounce on the penetration of miasma through the lungs; so that, by exclusion, he only admits for the miasmata one way of entrance, and that is by the recent or chronic wound of the contaminable subject. The arguments against so absolute an opinion are as numerous as they are decisive; and, if M. Guérin persists, I shall produce them at the first demand.

Every case of poisoning involves degrees and forms in relation with the quantity and the quality of the grain and the nature of the soil. Every case of poisoning is also liable to be modified by the invasion of an intercurrent pathological state. The same thing holds true of septicæmia. For the sake of rendering the study of the fevers consecutive to wounds easy, divisions have been traced; but these divisions are decidedly too radical, for we often find them effaced at the bedside. The forms generally admitted are—primary traumatic fever, secondary traumatic fever, inflammatory or suppurative fever. Is such a classification legitimate? Certainly we find, upon attentively following a wounded patient from the first day to the termination of the case, notable variations in the rise and fall of the fever. In case of a slight or severe wound, and if the conditions of the patient and the surroundings are exceptionally favourable, the traumatic fever begins from the second to the fourth day, and ceases from the fifth to the eighth. But the following anomalies are also observed:—

1. A total absence of symptoms.
2. A tardy apparition, as late as the sixth or eighth day, and even still later.
3. A prolongation of the primary fever beyond the usual time.
4. An uninterrupted continuation until death, even though this should not take place till after a month or more.
5. If the wounds are of a serious nature—apparition precise, intensity great, remission notable though imperfect—recrudescence more or less sudden, followed by a new depression which continues progressively until complete suppression, or, on the contrary, succession of relapses imparting to the symptom the regular or irregular remittent type.

The fortuitous recrudescences, very important to recognise, can be often explained by the invasion of an intercurrent disease, of an inflammatory or other nature, or by the invasion of an organ not primarily affected by the injury. But in the general complex state which results from the association of the morbid foci, it is ordinarily easy to find the part belonging to the primordial septicæmia. If some evident complication does not account for the irregularities of the fever, I can only explain them by the variations (already mentioned above) in the production, the absorption, or the elimination of the sepsine; but I can see nothing else in them than varieties of the ordinary septicæmia.

I have attentively read a very remarkable article by Billroth on secondary fever (*Nachfieber*), and I have not changed my opinion. I may say, moreover, that I have never observed any special characters in secondary fever excepting the intensity and the real prognostic signification, and therefore do not recognise in it any distinct causes. I have a patient in my wards at this moment with a complicated fracture of the leg, which I treat by rigorous occlusion and immobility. He remained seven days without the slightest fever. On the eighth, the general state and the thermometer denoted the invasion of fever; the focus began to suppurate a little, and the integuments around the wound became somewhat inflamed. The late appearance of the reaction might go to show the absence of primary fever in this case, but a secondary fever due to the secretion of pus or the inflammation of the wound. As for myself, I only see in it a traumatic fever, retarded by the treatment employed, which for a few days had the power to impede the production and the absorption of the sepsine.

There is one form of fever—that of suppuration—which I reject altogether. If we wish to distinguish it from the inflammatory and the traumatic fever, classed among the secondary fevers, it would have to come up late after the primary traumatic fever, and coincide with the appearance of pus on the wounded surface. It would have for its cause the organic process which generates the pus, just as the milk fever would have for cause the lacteal secretion. Milk fever, speaking of it in the sense of a specific variety, has disappeared from the nosological catalogue, and it should be the same with the fever of suppuration. If, apart from this inflammation, which so often accompanies it, the production of pus could in itself excite a febrile reaction, the reaction in that case should follow the different phases of its generating cause, begin and finish with it, and last as long as it does. But the least observation will suffice to prove that this relation does not exist, and to show that the pus is formed with or without reaction, before, during, and after the so-called suppurative fever. This term should therefore disappear, and no longer complicate the history of traumatic septicæmia. I am inclined to believe that the theory of traumatic fever is to-day complete, or about to become so.

I hope that the preceding account is lucid, and free from all ambiguity, and especially incapable of causing that "inextricable confusion" which M. Chassaignac speaks of. I still believe it to be immovable, because it is built upon a solid tripod—physiology, experiments, and clinical observation. Lastly, it is of incontestable utility, for it contains in itself the prognosis, the prophylaxis, and the therapeutical treatment, properly speaking. Once the origin of the poison, its source, its ways of entrance and outlet, and its effects upon the organism known, the Practitioner finds himself fronted by an enemy which he can keep at bay or battle face to face. Vanquisher or vanquished, the Surgeon knows at least what he is doing, and he may always hope that the progress in

science will furnish him with new weapons. Any other conception of traumatic fever is, to say the least of it, sterile; and when it is said that "this fever is due to an important change which takes place in the wound, or to a revolt of the organism against the lesion which is to be repaired," we remain in the dark, and actually explain nothing.

As in my first communication, but this time in more explicit terms, I conclude thus:—

1. Traumatic fever is one and the same; it shows itself early, but can last as long as the conditions for the production and the absorption of the sepsine exist. It often ceases at the end of a few days, when the sepsine is eliminated, but it can also last for an indefinite period, cease and reappear, present the remittent, regular, or irregular type, without changing in its essential character on that account.

2. It may be observed combined with fevers which have been provoked by some intercurrent, inflammatory, or other lesions, having their origin in the wound, such as erysipelas, lymphangitis, phlebitis, diffuse phlegmon, etc., or by diverse lesions developed in distant organs. In that case, we have two fevers superposed, one septic, the other inflammatory.

3. There is no inflammatory traumatic fever in case the inflammation of the wound does not exceed the degree of legitimate plastic inflammation. If this form were admissible, we should also be obliged to admit a variolic traumatic fever, in case a wounded person is attacked by intercurrent variola.

4. The suppurative fever is equally absent when the production of pus is limited to the normal proportions, and when this fluid is of a healthy nature. If the pus becomes putrid and is absorbed, it determines a recrudescence of the septicæmia, which is nothing special.

5. The traumatic fever may appear early or late, be of short or long duration, regular or irregular, light or severe, just like septicæmia—of which it simply represents a variety—consecutive to the traumatism and imputable to the numerous anomalies in the reparative process.

6. Be it generated within or without the patient, traumatic septicæmia always preserves the same nature and the same general physiognomy.

7. It is impossible to trace a perfect demarcation between traumatic fever and acute or chronic septicæmia; this I affirm more than ever.

8. I hope to be able to prove that pyohæmia is nothing more than a severe septicæmia, with special complications, having special causes, but which, in spite of these special characters, enters, nevertheless, into the series and does not break the unity.

(To be continued.)

ORIGINAL COMMUNICATIONS.

ON RHEUMATISM.

THE PRINCIPLES OF ITS TREATMENT.

By J. JAMES RIDGE, B.A., B.Sc., B.S., M.D. Lond.

(Concluded from page 495.)

In reviewing the various agents at our disposal we may divide them broadly into the remedial and the prophylactic, and I shall endeavour to arrive at the method of their action in the light of the principles which have been enunciated.

The remedial agents include—

1. *Means by which an Attack can be cut short.*—That it is possible to arrest a catarrhal attack or incipient rheumatism by various measures is unquestionable. Even after distinct and localised joint-symptoms have appeared, appropriate treatment can often cause them to disappear more or less suddenly, together with all the general symptoms. This, of course, is what we aim at in all cases; but it is an end which seems to be at present attained almost exclusively in those that are recent. If, after exposure to cold, febrile symptoms are setting in, without any distinct disease being yet produced, various remedies are employed; diluents, hot or cold, with abundant warmth and covering to the surface, or hot stimulants, or a Turkish bath, will all frequently effect a cure. Of course this is the old, but very vague, "determination to the skin" by which the disease or the poison was supposed to make its corporeal exit. I should employ them as means to divert the morbid excess of energy to the secretory nerves of the skin, and so to let the system safely down to equilibrium. Diuresis can be produced at our pleasure by most of the same means, merely by keeping the skin cool at the same time, and will also act as a safety-valve for the excess of energy. Yet diaphoresis seems to produce a profounder effect, probably because the extent of surface is so much greater, and the skin has relation with a far more extensive series of nerve-centres.

Even if arthritis has been established, we are not unable sometimes to arrest it suddenly, especially in recent cases. Again and again the preliminary warm-bath administered to most patients on admission into Hospital has removed the disease before the visiting Physician has seen them; and when not removed it is very often alleviated. The influence here is probably something more than the production of diaphoresis, although that occurs; we have the very opposite of a chill applied to the whole surface of the body, capable, to some extent, of really reversing the changes which cold produces in the various nerves. Some may say, "Why, then, does not heat cure every case as quickly as the cold produced it?" I believe the true reason is, because the cold acted when the nervous system was evenly balanced, or even already inclined to inflammatory action; whereas the heat has to act on the system when least inclined to its influence. It is all the difference between accelerating a body, or starting it from a position of rest, and reversing the direction of its progress.

All the other means at our disposal may be employed to assist in this process, and their action only differs, perhaps, in being somewhat slower, although this may only seem so because they generally act at less advantage, being employed when the complaint is already established. The distinction between the action of these and of the means to be immediately noticed is quite artificial.

2. *Means by which Acute Rheumatism can be removed.*—The inflammatory action may be either checked or diverted. Nerve-excited inflammation may be checked in two ways—(1) either by directly reducing the nerve-energy, or (2) by locally diminishing the activity of tissue oxidation.

By "reducing the nerve-energy," I mean a process quite distinct from its diminution in one form through diversion into another channel; I refer to a simple decline of its intensity. The application of continuous heat, whether as simple warmth, or to such an extent as to be an irritant, acts partly in this way, having an action on the nervous system exactly opposite to that of cold. Some sedative drugs probably include in their action a directly antagonistic influence of this kind. Among such are opium, camphor, aconite, and most likely colchicum, although these can act powerfully in other ways. Nitrate of potash has a somewhat similar action on the nervous system, since it relaxes bloodvessels (so promoting the catamenia), and increases the perspiration, and depresses the pulse; it is quite a mistake to regard it as an alkali.

Another mode of checking the process is by directly retarding the oxidation of the tissues. Some of the remedies which have long been used in rheumatism partly produce their beneficial effect thus, although they have not been given with this idea at all. I refer to the various vegetable salines which have been employed with the intention of rendering the blood and the secretions alkaline, and so of neutralising the peccant poison. It is well known that in passing through the system these salts are decomposed, and form carbonates of their base: in this process a large amount of oxygen is consumed. The comparative quantity required in each case for complete oxidation is as follows:—

226	grains of potass. tart.	require about	235	cubic in. of oxygen
188	,, potass. tart. acid.	,,	235	,,	,,
306	,, potass. citr.	,,	423	,,	,,
98	,, potass. acet.	,,	188	,,	,,
77	,, ammon. acet.	,,	376	,,	,,

The last valuation supposes that the ammonia as well as the acetic acid are completely oxidised—nitric acid and water being formed in one case, carbonic acid and water in the other. The comparative value of these salts for this purpose can be better seen in another way. Thus, the same amount of oxygen is consumed by the complete oxidation of—

2	grains of	ammon. acet.
5	,,	potass. acet.
7	,,	potass. citr.
8	,,	potass. tart. acid.
9	,,	potass. tart.

This order will be found to correspond with the generally entertained idea of their value as febrifuges.

If we take the case of liquor ammoniæ acetatis (P.B.), which contains about 28 grains of acetate in each fluid ounce, and suppose that half an ounce of the liquor is taken every four hours, about 84 grains will be taken in the twenty-four hours; and, roughly speaking, some 400 cubic inches of oxygen will be required to oxidise this completely. When we recollect

that from 30,000 to 80,000 cubic inches of oxygen are daily absorbed by the lungs, the effect which might result from abstracting 400 of them at first sight appears to be insignificant. But, on the other hand, it should be remembered that we do not aim at reducing the oxidation below the normal by means of these salts, but to diminish all that is in excess of the normal, and to this excess of oxygen consumed 400 cubic inches may often bear a much larger proportion.

Again, when completely oxidised, most of these salts form alkaline carbonates, and alkalies promote oxidation: will not their secondary action neutralise, or even reverse, their primary effect? In answering this question, I shall also give my view with regard to the value of alkalies. The tendency of these, as far as oxidation is concerned, is doubtless to promote it; and the process is already too active. Some circumstances, however, diminish this apparently harmful influence. In the first place, the process of oxidation seems to go on more rapidly than oxygen can be supplied, and many lower products are formed—such as uric acid and other suboxidised transition forms—in the direction of urea. As complete oxidation of albuminous materials is approached, there seems to be a less degree of affinity for oxygen; so that, when the quantity of this gas is limited, the non-nitrogenous and highly organised albuminoid substances seize upon it with more avidity than those materials which have been nearly completed. If, now, the alkalies supplied more oxygen, they would promote the process amazingly. Since they cannot do this, but only render combination with oxygen more easy, I think it is probable that they render possible the still further oxidation of those waste products which had begun to be oxidised more sluggishly; if so, every grain of oxygen thus employed is hindered from assisting in the destruction of the remaining tissue elements. In those cases of rheumatism called gout, where irritating collections of acid urates have been formed, alkalies will help to dissolve the concretions and remove this source of irritation. The spanæmic effect on the blood which alkalies exert (in some cases of rheumatism most disastrously), by which the number of oxygen-carriers is sensibly diminished, will also diminish the amount of oxidation possible from this source of oxygen supply. But to whatever extent they promote the primary oxidation of the tissues, it appears to me that they cannot but do harm; and it remains a question, which may be differently decided in different cases, whether their beneficial or injurious effect will predominate. Their diaphoretic influence will be noticed further on.

We possess, however, more powerful retarders of oxidation than the vegetable salts. I refer to the acids, both vegetable and mineral, but especially the latter. Citric acid has long been employed; more recently a mineral acid has been unwittingly recommended—namely, in the approval bestowed upon the tincture of perchloride of iron by Dr. Russell Reynolds. I believe its beneficial effect is chiefly due to the large amount of free acid which it contains, although its influence in tending to obviate the rapid destruction of blood-globules is most valuable. Both before and since this plan of treatment was published I have been in the habit of treating acute rheumatism with advantage by means of the mineral acids, principally sulphuric. The cases are much too few to decide the exact value of these remedies, especially as I have not felt justified in neglecting general and external treatment, or other drugs which are indicated on the theory I now uphold. The cases should be numbered by hundreds before an irresistible conclusion can be drawn from experience; but I believe a careful trial will prove these drugs to be of great value in rheumatic fever, and not least in preventing the extreme prostration and anæmia so usual as the result of full and long-continued alkaline treatment.

In the next place, the morbid process may be arrested by diverting the excess of energy into another channel. This is the old theory of derivation, but with a more extended application and a more precise explanation. Under this head I include all those diaphoretic, diuretic, counter-irritant, and derivative measures, which form so large a proportion of our aggressive weapons, and the principles of whose action I have before tried to explain. I have little further to add than to direct attention to the fact that the remedies mostly employed in this complaint have therapeutic actions consistent with this hypothesis, and that remedies of a similar nature are those we must look to for most assistance. These agents either produce a change of action in the inflamed part itself, and substitute vaso-motor contraction or secretion, or they restore the normal trophic action by diverting the excess of energy to establish inflammation, organic muscular contraction, or secretion in some other part "alternatively" connected with it by its sympathetic nerve-supply. The establishment or increase of some secretion is the method most often adopted, and to this end opium, camphor, ipecacuanha, tartar emetic, colchicum, guaiacum, alkalies, salines, and some purgatives are administered, besides the application, either locally or generally, of warmth and moisture. Secondly, we may promote vaso-motor action by means of quinine, digitalis, and ergot: the first of these remedies is largely used abroad in this complaint. Thirdly, the use of counter-irritants is widely spread, and their value unquestionable. In addition to their irritant action, they tend to reverse the primary action of the cold by their warmth and moisture, and they should be carefully followed up with constant warmth, in order to preserve the unsettled nerve-territories from fresh disturbance. The use of stimulating embrocations frequently relieves the pain, and is often associated with some swelling of the part to which they are applied; and it is not without significance, that, when œdema occurs spontaneously, the pain is often greatly alleviated. The (so-called) counter-irritation of the bowels is usually rather a process of counter-secretion, imitating the natural alternation by which nasal catarrh or bronchitis often subsides.

In chronic rheumatism, the direction of more than its proper share of nerve-force into one channel, and the expenditure of extra stimuli in the same way, have become confirmed by the influence of habit. It is consequently more difficult to divert it, or restore equilibrium, and it is more likely to revert to its old course. It is only by the long-continued influence and persevering application of the less energetic alternative remedies that we can hope to effect a permanent change in the distribution of energy. And while we promote secretion we must carefully avoid the reduction of the general power, but rather adopt also such measures as will give tone to the system, lest we render it generally more susceptible to morbific influences.

Prophylactic measures.—The means useful for the purpose of diminishing susceptibility are such as promote the general health, and preserve the due balance of all secretions. There are also those which diminish the morbific power of some particular exposure. Among these latter warm clothing is universally approved of. Anointment with oil is also a very useful measure, apparently diminishing the rapidity with which heat can be abstracted. But I wish specially to notice three plans which seem to confirm the views I have been advocating. The liability to take cold in any form is diminished by exercise during the exposure, or by a previous full dose of quinine or of opium. I attribute this to the fact that in exercise nerve-energy is being more particularly directed in certain channels—not that of inflammatory action, but rather of muscular contraction and secretion. Stimuli, therefore, besides having probably less influence upon the trophic system, are diverted—carried with the stream, as it were—or, at least, unable to arrest it, and are thereby exhausted and rendered harmless. In the case of quinine we have the vaso-motor nerves thus pre-occupied, and perhaps also a positive reduction of trophic energy. In the case of opium, besides diminishing metamorphosis, the secretory system is stimulated to activity.

In concluding these remarks on Rheumatism, I have only to add that they principally serve to show how much yet remains to be discovered; but I trust that they also indicate the direction in which we must look for further light. The exact course of the influence of cold is still unknown, and also how it can convert potential into actual energy, or disarrange its normal distribution. All these problems of molecular mechanism remain to be solved, with many others. The correctness of the view I have taken—the simple catarrhal nature of rheumatism, and the relation existing between the various kinds of work effected by sympathetic fibres, by means of which inflammation may subside spontaneously, or may be induced to do so—I leave to time, which testeth all things.

Grafton-square, Clapham.

The British Medical Benevolent Fund.—Twenty-two applications for assistance were laid before the Committee at their meeting on Tuesday last, and in eighteen of these grants were made, amounting in the aggregate to £135. The Treasurer (Dr. Hare) reported the receipt of a legacy of £500, free of duty, from the late Dr. George Cursham. This sum has, in accordance with the laws, been invested and added to the Annuity Fund. We regret to find that the Committee are unable, from want of funds, to increase the number of annuitants this year, there being as many as thirty candidates admitted as eligible who are eagerly awaiting their election.

NOTES ON MENSTRUATION.

By FRANCIS R. HOGG, R.H.A.,
Fellow of the Obstetrical Society.

Initial period.—Out of 2000 inquiries personally made, 1 woman commenced to menstruate at the age of 9, 6 at 10, 59 at 11, 146 at 12, 253 at 13, 437 at 14, 502 at 15, 270 at 16, 157 at 17, 97 at 18, 45 at 19, 19 at 20, 4 at 21, 1 at 22, and 1 aged 30 and married seven years not at all. This instance suffers monthly from otorrhœa, lasting one day.

Initial period commenced after marriage in 17 instances, at the ages of 14, 15, 16, 17, 18, and 19.

During pregnancy, 21 menstruated up to quickening—not as a rule, but chiefly, with boys, and frequently with alternate children—4 instances menstruated up to six months, rare instances up to seven and eight months, and 3 instances during the whole period. The children as a rule born alive, but extremely attenuated.

Menstruation ceased in one instance at 23, initial period being 16; now aged 50; the mother of four children, and a grandmother; is well and strong. One woman ceased at 34, 1 at 35, 2 at 37, 5 at 38, 10 at 40, 2 at 41, 6 at 42, 3 at 44, 5 at 45, 3 at 46, 9 at 47, 2 at 48, 3 at 49, 2 at 50, and 2 at 53.

The following facts were related by patients; there is no reason to doubt their accuracy. In a former paper in the *Lancet* it was mentioned that one woman did not menstruate until the birth of her first child, and at the stage of 17. This is a solitary instance up to the present date.

Statements.

A. Commenced to menstruate at 19; one sister, aged 19, not as yet. A second sister, married at 19, was five years before falling pregnant, and after eighteen months' nursing, weaning her child, she menstruated for the first time. A third sister, aged 18, had disease of the left elbow-joint, requiring excision; also right mammary abscess, which bursts out periodically; now aged 22, and married two years; has never menstruated.

B. Menstruated once at 17; then for four years, until marriage, vicariously from ears, nostrils, and finger-nails. Curiously enough, although her husband contracted variola, through smoking the pipe of a person affected, she did not contract disease.

C. Deaf when menstruating; hears best when pregnant.

D. Mammary abscess occurred through suppression.

E. Temporary loss of prehensile power at the regular periods.

F. Initial period at 20, immediately preceded by scarlet fever. Marries at 30; bears four children to husband, who dies of sunstroke. During her last (posthumous) pregnancy, uterine hæmorrhage or else menstruation took place. The child, considered by competent judges of six months' growth at birth, is now an idiot at Earlswood.

G. Unvaccinated; when 15 years old attacked with variola, initial period occurring after twenty-four days' illness; is terribly marked.

H. Since marriage and birth of two children the breasts enlarge most painfully a few days before each regular period, and an uncontrollable, causeless feeling of jealousy temporarily makes her life wretched.

I. Up to initial period at 14 had a hydrocephalic tendency, which subsided.

J. Initial period preceded by bronchocele.

K. In India the period nine days, regularly preceded by Peshawur fever.

L. Regular period always preceded by agonising pain of the right knee.

M. Severe attack of measles at 15; initial period at 20; two sisters commenced at 19.

N. Never pregnant; married some years. Twelve months ago the steel of her crinoline caused ulcer of the right shin; the wound nearly healed; always burst out afresh one day preceding regular period.

O. Never regular unless she has plenty of dancing.

P. At the age of 12, hearing groans of parturition, in a fright fell against a fender; temporarily paralysed, mouth drawn to one side, and the jaw rigid fourteen days; initial period at 18.

Q. Eight years ago fell into the ice skating on the initial day; fished out insensible; was irregular three years.

R. Suffers from blistered feet, the dregs of scarlatina; the pain at the regular periods agonising.

S. Four years ago, when 34 years old, fell out of window on to the roof of a shed, about twenty feet, breaking three ribs; menstruation ceased.

T. Initial period at 18, preceded by abscess of right knee and right thumb.

U. Initial period preceded by erysipelas of the face.

V. In excellent health; menstruates every two months for one day only.

W. Through menorrhagia temporarily monomaniacal, entertaining the idea that everyone is in love with her innocent husband, and that men who come to the house are women disguised.

X. Aged 43; for eighteen months has vicariously menstruated from the feet. Married twice; has given birth to ten children; deliveries with one exception instrumental. That exception alone survives, the remainder died of convulsions. As a rule menstruated up to quickening; has aborted twice in addition to a mole pregnancy.

In a recent lecture Kingsley reminded us that the miserable *chiffonnier* poking about with his little stick amongst rubbish, hoping to find a coin, occasionally discovers a jewel. Equally, the statist in monotonous search may at any time stumble across Professional practical treasures.

Amongst other researches, the late Sir Roderick Murchison, in pointing out the gold fields of Australia, created princely fortunes for others, and for himself—"*Exegit monumentum ære perennius.*"

FOOT AND MOUTH DISEASE IN THE HUMAN SUBJECT.

By T. E. AMYOT, F.R.C.S.

For some weeks past I have intended to send you a notice concerning the occurrence of "Foot and Mouth Disease" among my patients, but I should probably have neglected to "crown my thoughts with acts," had I not noticed in your last impression a request for such information.

Here, then, the foot and mouth disease among neat cattle has been epidemic to a very great extent during the past summer. I need say no more of it than that in this district, as elsewhere, it appears to be highly infectious, to have a distinct incubative stage, to affect the animals for two or three weeks after the appearance of the eruption, and finally to subside—fatal terminations being rare. The milk from the sick cows, even during the incubative stage, is capable of producing a like disease in other animals which consume it—pigs, for instance, suffering severely. It has sometimes a faint, and at other times a slightly putrid odour, decomposes quickly, and its ill-effects are not, I think, entirely removed by boiling. When the febrile symptoms are at their height, the cows often become dry.

Now, proceeding *pari passu*, both as to time and symptoms, with this epidemic, has been the disease affecting my patients, both infantile and adult, but more especially (as the great milk consumers) the former. After a few days of poorliness, hardly noted by the parents, an eruption shows itself on the lips, the lining membrane of the cheeks, and on the sides of the tongue; and generally a few yellow-headed pimples (they are not vesicles) show themselves on the hard palate. The child refuses food—more on account of the tenderness of the mouth than from want of appetite—becomes feverish and restless, and so remains till the subsidence of the rash, which, under favourable circumstances, takes place in the course of ten or fourteen days, leaving no further ill-effects than a certain degree of debility, from which the patient quickly rallies.

The above is a description of a simple and uncomplicated case, and from such I have seen no fatal effect—in fact the symptoms are hardly alarming; but it is far otherwise when diarrhœa occurs as a complication, especially when it assumes, as it frequently does, a dysenteric form, which is particularly intractable. I mention diarrhœa as a "complication" because it existed as an epidemic at the time, and I am by no means sure that it forms part and parcel of the affection under consideration, although its subjects were probably peculiarly open to its attack, and suffered more severely in proportion to the degree of debility and fever already established. One of these cases I lost—a poor "farmed out" child of eleven months, which, however, I am bound to add, was tended carefully and even affectionately by the she-farmer. Another case, which for a time looked badly, was that of a child about 9 years old, whose lips, uvula, and tongue became densely covered with false membrane, and who obstinately refused food, both fluid and solid, for many days, although evidently suffering from both hunger and thirst. Now, I have put these cases down as

"foot and mouth disease," because they were almost all distinctly traceable to the use of milk from diseased animals, but I must admit that the *foot* symptoms were in general conspicuous by their absence. In one case, however, an adult female, it was not so, for in addition to the usual mouth symptoms the feet became hot and covered with painful tubercles, which disappeared with the attack. She also suffered sharply from diarrhœa.

The treatment of the disease was of course principally dietetic—the substitution of good milk for bad, or the use of the condensed Swiss milk, which I find answer admirably, and to be much approved by my patients, young and old. Liebig's extract, too, did good service, and in some cases, where the exhaustion was great, a few drops of brandy added to the food produced good results. One medicine was extremely useful, and apparently extremely grateful to both young and old—even to the child whom I mentioned as refusing all forms of food for many days—and that was the sulphurous acid, frequently given, in doses of five to twenty minims, with a little syrup of oranges and water. No treatment seemed very effectual in controlling the dysenteric symptoms; but the administration of small doses of tinct. ferri perchlor., with spirits of chloroform every four hours certainly did good both during their continuance and in convalescence.

In conclusion, I may note the difficulty which exists as to tracing these cases to their true cause, dealers in milk being of course unwilling to acknowledge the existence of disease among their cattle.

Diss, Norfolk.

REPORTS OF HOSPITAL PRACTICE

IN

MEDICINE AND SURGERY.

MIDDLESEX HOSPITAL.

CONDURANGO-ROOT IN CASES OF CANCER.

(Under the care of Mr. HULKE.)

[For notes of these cases we are indebted to Dr. DAVIDSON, House-Surgeon.]

MANY of our readers may be aware that in the first part of the present year a quantity of condurango-root—vernacularly called the "vulture plant"—was sent by the President of the Republic of Ecuador to the Queen of England, with the statement that it had been tried by several of the Doctors in the Republic, and had proved to be a cure for cancer, syphilis, and phthisis. As any remedy reputed to be of service in such destructive and fatal diseases was worthy of trial by Physicians and Surgeons in this country, Lord Granville, at the expressed wish of her Majesty, sent a packet of the condurango-root to the College of Physicians, at whose disposal it was placed. Accordingly, it was divided by them into three parts, one to be sent to the Radcliffe Infirmary, Oxford, another to St. Bartholomew's Hospital, and the third to the Middlesex Hospital. The report which accompanied the quantity sent to the Middlesex Hospital contained the account of one or two cases of syphilis and of epithelioma in the ulcerative stage which were said to have been cured by the administration of the drug. It was stated that those who were submitted to the treatment were "*reconstituted*" in four or five days, and that improvement began to take place from the date of "reconstitution." But it was also asserted that nervous commotions, such as those produced by strychnia, in some cases followed its exhibition. From Mr. Hulke's report of the cases on whom he tried it in the Middlesex Hospital we learn that he commenced its use in four cases, of which one was a scirrhus of the breast and the other three epitheliomata. After a few days, however, as it appeared that the quantity of condurango received from the College of Physicians would be insufficient to supply all the patients with the proper daily doses of the decoction for more than a very short time, it was discontinued in the case of scirrhus of the breast and in one of the cases of epithelioma of the penis.

None of the patients while taking the condurango exhibited the "serious nervous phenomena" mentioned by Dr. Joseph Equigusen, and in none of them has the reputed remedy exerted the slightest influence in retarding or modifying the course of the cancer, or in improving the general condition of the patient. In each patient the pulse-rate and temperature were recorded twice daily during the whole time the condurango treatment was continued. Mr. Hulke adds—"As a reputed remedy for cancer, condurango is in my opinion perfectly inert and useless."

The condurango was given in the form of a decoction, prepared strictly in accordance with the directions contained in the memorandum received with the stems from the College of Physicians. It was of the colour of brown sherry, and each pint of the decoction contained an ounce of the plant. Of this decoction five ounces were taken night and morning, and after a few days, as all the patients complained of flatulence, half a drachm of tincture of ginger was added to each dose.

Case 1.—*Epithelioma of Penis and Surrounding Tissues.*

James P., aged 34, a thin, haggard, pain-worn man, with a sallow complexion and hollow cheeks, was admitted into Handel Ward on August 15, with primary cancer of the penis, and secondary infection of the lymphatic glands in both groins. The end of the penis, where the glans had been, was an unshapely tuberous, ulcerating, and granulating mass. A larger ulcer reached from near the left anterior superior iliac spine, along the groin, across the pubes, measuring in its long diameter 7 inches, and from 2½ to 3 inches in its short diameter. At its outer half the growth predominated over ulceration, and its floor was studded with cauliflower buttons and masses of small granulations, while at its pubic end the erosion was so deep that it seemed surprising that the peritoneal cavity was not opened. The edges of this ulcer were very irregular and sinuous—in parts undermined and overhanging, in other parts swollen and everted. Near the outer end of the ulcer were some small outlying buttons. The lymphatic glands in the right groin were enlarged. The discharge from the ulcer was very profuse, thin, ichorous, and nauseously fetid.

August 23.—Patient has a tolerably good appetite. Pulse 100; temperature 100°.

24th.—℞. Decocti conduranginis ℥v., night and morning commenced. The sore is dressed with cotton-wool steeped in a solution of chloralum, and the whole covered with oakum.

25th.—Very slight elevation of temperature; no alteration in the sore.

27th.—Sore looks rather cleaner. No constitutional changes further than that the patient expresses himself as feeling rather stronger.

28th.—Sore continues to clean. No nervous or other phenomena are observable.

29th.—Complains of a feeling of distension in the abdomen; bowels freely opened, tongue clean, appetite good. Yesterday complained of throbbing pain in the sore.

30th.—Rather more pain in the sore; the discharge, which had been healthy for a few days, has become watery. Is much troubled with flatulence. ℞. Decoc. conduranginis ℥v., tinct. zingib. ℥ss., to be taken night and morning.

31st.—Less pain in the sore. There has been slight capillary hæmorrhage from the surface.

September 2.—No change for the better in the sore. The discharge has increased, and the ulceration has extended deeper.

He continued to take the condurango-root up to September 18, and on the 19th he died exhausted, the growth having steadily progressed, and the small outlying buttons in the left groin having become large cauliflower masses.

Case 2.—*Ulcerated Epithelioma of the Roof of the Mouth.*

Hugh L., aged 68, a short, thin, wiry-looking stableman, was admitted into Handel Ward, August 17, with an ulcerated tumour of the roof of the mouth. A few days later, when he came under Mr. Hulke's care, it involved the entire left half of the roof (implicating the hard palate and velum), and also the right half of the velum, extending in this direction as far as the right anterior faucial pillar. It had a bony nodular surface, and depended from the alveolar border of the right maxilla in curious wattle-like masses. The centre was irregularly eroded by ulceration. The floor of the ulcer was partially coated with tawny-yellowish fibres, amongst which were nodules of growing tumour, and red clusters of granulations. He was suffering a good deal of pain in the cheek and left side of the head. There was no enlargement of the neighbouring lymphatic glands discoverable, and no appearance of cachexia; on the contrary, his aspect was that of sound health. He related that when in excellent health, about one year before, whilst smoking, a child in his arms hit his pipe, and jogged the end of it into the roof of his mouth, where it made a little round hole, which bled freely for ten minutes. A month later he noticed a small warty lump where the wound had been, and in two months this had grown to the size of a halfpenny. The physical characters of the ulcerated tumour,

and its history, made it impossible to doubt its cancerous nature. A weak gargle of myrrh and liberal diet were ordered.

August 25.—Commenced to take condurango.

26th.—Previous condition unaltered. Pulse 78; temp. 99°.

28th.—Less pain in the cheek and head. Pulse 80; temperature 99°; bowels regular; urinary secretion not altered.

29th.—Complains of headache; feels very languid, and at times giddy; has smarting pain in the roof of the mouth. Pulse 72; temperature 100°.

30th.—Patient still feels giddy at intervals, and the pain in the head continues. Bowels regular; complains of flatulence. Add thirty minims of tincture of ginger to each dose of condurango. Pulse 80; temperature 100·3°.

31st.—Yesterday had slight hæmorrhage (ʒj.) from the roof of mouth. Still complains of smarting pain in the sore; the surface is clean. He still washes his mouth with a gargle of myrrh. Pulse 74; temperature 99°.

September 1.—Has had no more attacks of giddiness. Yesterday he suffered a good deal of pain in the left ear. Pulse 76; temperature 99·4°.

3rd.—There is no change in the character of the sore; it seems to be spreading in the front, and it occasionally bleeds—about a drachm at a time. Pulse 76; temperature 99·5°.

9th.—No improvement, either constitutionally or locally, can be noted. The growth is increasing. Pulse 67; temperature 98·8°.

11th.—Last night suffered from choking sensation. The pain is now more severe. Pulse 70; temperature 99°.

12th.—To-day patient feels rather better. No more chokings. Pulse 76; temperature 99·8°.

14th.—Has great pain in the mouth, difficulty in swallowing, and the left cheek is swollen. Passes restless nights. Pulse 80; temperature 100·4°. ℞. Liq. opii sed. ɱxv., aquæ camph. ʒjss., bis die.

15th.—Is in less pain to-day. There is marked increase in the size of the growth, appetite has greatly failed, and the patient's countenance is anxious and distressed. Pulse 64; temperature 99·1°.

18th.—The growth still increases. A pendulous lobe hangs from the left side of the roof of the mouth. Pulse 72; temperature 99·4°.

20th.—Last night had slight hæmorrhage from the roof of the mouth, and much aching pain in the temple. Pulse 76; temperature 99·2°.

25th.—Took the last dose of condurango to-day. The growth has more than doubled its size since the condurango treatment commenced. The cheek is now bulged outward on the left side. Pulse 84; temperature 98·8°.

27th.—The ulceration now extends into the fauces, and deglutition is increasingly painful and difficult.

HOSPITAL FOR WOMEN, SOHO-SQUARE.

CASES ILLUSTRATIVE OF DISEASES OF THE RECTUM IN THE FEMALE SIMULATING UTERINE DISEASE.

(Under the care of Dr. EDIS, Assistant-Physician.)

THE following cases may serve to illustrate, and at the same time direct attention to, a by no means infrequent train of symptoms met with in females, both in Hospital and private practice, who have been the round of the several institutions or special Physicians without obtaining any definite relief. In many instances they are looked upon as hysterical or exaggerated, and their intractability to ordinary remedies, directed specially to the uterus, exhausts the patience of most Practitioners, and confirms the patients in the belief that their disease is incurable. A more careful study of the subject would, I feel sure, enable the Practitioner to detect in many cases some hidden mischief susceptible of relief if only proper treatment be employed, and thus rid our patients of what may have been years of discomfort and misery.

Case 1.—G. R., aged 25; married seven years; resides in India; sterile. For years past she has suffered from intense pain in sacral region; worse on exertion and defæcation. The periods were regular, scanty, and painful. After being under Medical care for several years in India, her husband sent her over to England to consult the Doctors here, and see if any benefit could be obtained. At the time of my seeing her, in June, 1869, five weeks before her return to India, she had been under the care of several Medical men, had had the cervix divided, had worn an intra-uterine stem, as also a Hodge's pessary; had been leeched and blistered, and had evidently gone through the usual routine treatment, without any alleviation of her sufferings. She now despaired of ever getting better, and was very miserable at the thought of having to return to India after a twelvemonth's absence, having spent a little fortune on Doctors, and derived little or no benefit as regards the pain in sacrum, although the dysmenorrhœa was certainly less, and her general health improved. On examination she complained of much pain the moment the finger entered the vagina, which induced me to examine carefully the rectum, and there I discovered an ulcer the size of a shilling on the posterior wall, just above the sphincter, which was exposed, and was very painful; the margin was indurated, and the ulcer was evidently of long standing. Having given a small dose of calomel to clear the portal system, and instructed her to use an enema, I divided the ulcer through its centre and on either side, confined her to bed, gave opium suppositories, restricted her to spoon-diet, and at the end of a week induced the bowels to act by castor oil. A solution of nitrate of silver was applied once to stimulate the surface, and some pills consisting of pil. hyd. ipec. and rhei. co. were ordered, to secure the regular action of the bowels, which for many years had been very costive.

September, 1871.—Patient has just returned from India and called to report herself and tell me how well she has been, having had no return of the disease.

Case 2.—L. M., aged 37; married twelve years; sterile. Had been doctoring for fifteen months before my seeing her in March, 1871. Complained of vaginal discharge, which caused excoriation of the vulva and anal cleft; dreadful aching pain in groin, burning and smarting at times; aching pain in loins and lower back, "as if it opened and shut." Could not walk a hundred yards without wanting to pass water, or feeling so weak that she was obliged to sit down; had constant desire to go to the closet, especially on first rising of a morning and after eating or drinking anything, when she noticed blood and slime with the motion, and on some few occasions she passed large quantities of blood. Coitu was so painful, she dreaded the idea of it. She felt so miserable, her life was a burden to her. She got little sympathy from her Medical men, who, after leeching and lotioning the uterus and pouring in no end of tonics, failed to afford her any relief.

On examination a long fissure extended up the anal cleft, and the skin generally was dry and irritable. The lower portion of the rectum was extensively ulcerated and intensely painful, thick slimy mucus tinged with blood covering the surface. An ethereal solution of arg. nit. ʒij. ad ʒj. was applied pretty freely externally. Liq. hyd. nitrat. acid. was carefully applied to several of the ulcerated points, and an enema of glyc. acid. gallici with tinct. bellad. in lotio plumbi was ordered to be used night and morning; the bowels kept gently open with conf. sennæ, and a mixture of ferri and mag. sulph. with liquor strychniæ administered thrice daily. Within a month from this date she was nearly well. The mixture was persevered in for a few weeks longer, when she was discharged convalescent.

I saw her on October 24, as she had a slight return of the external fissure; but with this exception she had remained perfectly well, and has had no return of the distressing symptoms from which she suffered. Her general health is vastly improved, and the change in her mental condition is gratifying to witness; she is quite a different being.

Case 3.—M. B., aged 44; married twenty-two years; two children. Complains of constant aching pain in lower back and in right iliac region; frequent desire to micturate; feeling of pressure and bearing down, worse on walking; bowels generally confined; sense of weariness and fatigue; aching in upper part of thighs; irritation in privates, and feeling of fulness, as if they were swollen; has frequent spasms in lower abdomen. Has suffered from these symptoms for the last ten months, spite of all treatment, until she began to fear it must be cancer, and came up 150 miles from town to consult me.

On examination, the uterus was found to be bulky, but mobile; not tender on pressure, and not misplaced. The pain was principally referred to the right iliac region; the cæcum seemed to be much distended, and was apparently blocked up with fæces. A mixture of nitro-muriatic acid, quinine, and sp. chlor., and pills of extract of belladonna, with sloes and rhubarb, were ordered, with confectio sennæ if necessary. She returned home, and, after persevering with the treatment for a month, wrote to inform me that she had quite lost all her symptoms, and was very much improved in health.

Remarks.—This seems to have been one of those cases so frequently met with in females, of pain in the cæcum caused by over-distension, either from wind or fæces, due entirely to constipation. It is here that belladonna acts so beneficially in relieving the spasm and ensuring regular action of the bowels.

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Medical Times and Gazette.

SATURDAY, NOVEMBER 4, 1871.

THE EDINBURGH FEMALE MEDICAL STUDENTS.

The half-yearly meeting of the General Council of the University of Edinburgh, which was held on Friday, October 27, was signalised by an animated debate on the question of the Medical graduation of women in that University, which terminated in a victory for the supporters of public decency in Medical teaching and examination. The Medical champion of the women on this occasion was Dr. Alexander Wood, who, although disclaiming the character, fought their battle in a speech which, for prolixity and for talent in avoiding the real questions at issue, would have done credit to a debate in the General Medical Council. Dr. Wood moved—

"That, in the opinion of this Council, the University authorities have, by published resolutions, induced women to commence the study of Medicine at the University; that these women, having prosecuted their studies to a certain length, are prevented from completing them from want of adequate provision being made for their instruction; that this Council, without again pronouncing any opinion on the advisability of women studying Medicine, do represent to the University Court that, after what the Senatus and Court have already done, they are at least bound in honour and justice to render it possible for those women who have already commenced their studies to complete them."

In the course of Dr. Wood's speech he pointed out in feeling terms the mischief which would accrue to the University from an indignant public opinion, and threatened the University with all sorts of evils if Miss Jex Blake and her companions were not allowed to proceed to graduation—and, we presume, to the final capping. By-the-bye, we trust, if the University be gallant or yielding enough to dub the pretty charmers, that the Reverend the Principal will not disfigure their fair brows with the usual College trencher, but that a committee (with Dr. Alexander Wood in the chair) will be formed to determine upon the prettiest "Dolly Varden" (we believe that is the name of the latest thing in caps) to ornament the fair locks of—we won't say the blushing (we are afraid before graduation they may have lost the art) damsels. Of course the cap will be put on by the Principal, who, we presume, will be assisted by a lady's-maid on the occasion. This, however, by way of digression.

Dr. Alexander Wood read, but did not present, a petition from 9127 females, who all expressed an earnest hope that those of them who desired it might as soon as possible be able "to consult thoroughly educated Physicians of their own sex." Throughout his speech he entirely ignored the facts that the University had never in any way pledged itself to admit female Medical students to graduation; that a high legal opinion had declared that this could not be legally done; and that, according to that opinion, women, although attending lectures necessary to graduation, are not entitled to the legal status of students in the University. The regulations hitherto enacted with regard to the admission of women are, as Professor Turner said, purely permissive, allowing them to study Medicine only if the Professors of the Faculty think it worth while to teach them apart from the male students. We can see no injustice in the University authorities refusing to lower the status of their graduates, and make their degrees ridiculous by conferring them on women. We are heartily glad, therefore, that on a division the party of good sense prevailed, and carried the following amendment by Professor Turner on Dr. Alexander Wood's motion by a majority of ten:—

"The subject to which the motion of Dr. Alexander Wood refers being at present duly under consideration by the proper authorities of the University, the General Council decline to interfere in the matter at present, being confident that the cases of the several ladies who have commenced their Medical education will be considered with all favour compatible with the Universities Act, the University statutes, and the University charters."

We thoroughly agree with Professor Christison, that in admitting women within the walls of the University at all the Senatus of the University has run on very dangerous ground. But the mere fact of allowing them to attend lectures apart from male students in the University, although we regard it as a grave error, constitutes no valid argument for admitting them to degrees. Our Edinburgh correspondent, indeed, informs us that they have also been admitted to the Preliminary and First Professional Examinations. But it is hardly to be expected, after the legal opinion they have taken, that the University authorities will continue in an illegal course. The ladies have received the instruction they bargained for in the University, and have had the satisfaction of keeping the little Medical world of Edinburgh in a state of effervescence and excitement—perhaps not uncongenial to the sex, which is nothing if it fail to attract attention. They can now go, if they please, to Zurich or elsewhere for a degree; or they may agitate, if they like, for a charter for a women's college, where they may be taught, examined, and capped by their favourite Professors.

We observe that the Senatus Academicus of the University has refused pecuniary aid from the "Executive Committee for Securing a complete Medical Education to Women in Edinburgh," to recompense special lecturers in the event of their being appointed by the University to give qualifying instruction to women, in case of the fees of the women-students being insufficient. The fact is that the movement is very likely to die out in Edinburgh. The Professors of the University do not find it worth while to give separate lectures to a handful of young women, and the Senate has now determined not to accept foreign aid to continue an experiment which has already proved so distasteful to the male students and the foremost teachers, and so disastrous to Edinburgh as a Medical School.

THE LONDON DIALECTICAL SOCIETY ON SPIRITUALISM.(a)

We have said that the actual experiences of the various Sub-committees into which the Committee of the London Dialectical Society was divided were extremely meagre, and really valueless as scientific investigations. But the reports of the *séances* of these Sub-committees form but a small part of the volume published, not by the London Dialectical Society, be it remembered, but by its Committee. The greater part of the volume is composed of oral "evidence" given by various

(a) "Report on Spiritualism of the Committee of the London Dialectical Society, together with the Evidence, Oral and Written, and a Selection from the Correspondence." London: Longmans, Green, Reader, and Dyer. 1871.

people before the Committee, "communications" from members of the Committee and other persons, correspondence, and "notes of *séances* communicated to the Committee": and these are the interesting and amusing parts of the volume. Some of these "evidences" and "communications" may be commended to the psychologists as studies of mental twists and weaknesses, and some are real curiosities. We suppose that if anyone can bring himself to believe it possible that "he or anyone can call, the spirits from their golden day," to play fantastic tricks or practical jokes, to talk illiterate twaddle, or make frivolous and utterly useless communications, or at the best only to help curious inquirers to kill time, or professional mediums to gain a few guineas, he may believe the very wildest and most absurd improbabilities, and may seriously set himself to explain them. How are we else to comprehend how a sane man can offer the following as a satisfactory solution of the strange phenomenon of a spirit appearing in a dress? Mr. Varley says—"We may infer that everything is solid in respect to something, and that nothing is solid in respect to all things, and therefore thought, which is power, may be in some sort solid; so that if you take an old English farmer, for instance, he would be ashamed to be seen without his top-boots, his coat with the buttons, and his hat. They are part of his identity; he cannot think of himself without them; they form part of his nature; and the moment he leaves the body and becomes a thought man, the thought boots, the thought coat, and the thought hat form part of his individuality."

We have here, certainly, a new reason for our very carefully studying the history of costume; as, with a full knowledge of this subject, we may be able to know, at any rate, the nationality of the spirits we may meet in this world and the next, and the age in which they lived on earth. We hope the Education Commissioners and School Boards will note this. Do spirits always appear in their "Sunday clothes"? and are they compelled to keep for all eternity to the fashions reigning at the time they respectively left the body? A good deal more information on this subject is much to be desired.

From Miss Anna Blackwell we learn that we may educate and improve the spirits. She tells the Committee that "We say to the spirits that wish to deceive us, 'Dear Spirits, we are all imperfect; we will endeavour to benefit you by our lights, in so far as they are superior to yours.' Sometimes they would overturn and break the table, yet they were rendered better by our kindness. From one who was very violent, and by whom I have myself been struck, we have received progressive messages, showing how he has become better. They have often sent us messages, saying, 'We are going up higher now; we have through your help broken the chains of earth, and we leave you.'" This is encouraging, though it must be saddening to lose the society of spirits as they improve. This lady stated that "she considered that the creative act which gave rise to all was such that we progressed from gases to crystals, from animals to man"; yet, to the query "Then, the spirit which animates a man may have once animated a horse?" she replies, "No; that is not so. A horse is a horse; it is capable of being taught to go better, but it cannot learn mathematics. Nevertheless," she adds, "everything is progressive, and spirits that have progressed may become purified and combined so as to reach a higher stage." Miss Anna Blackwell was also kind enough to favour the Committee with a very lengthy written communication, which in the index to the volume is entitled, "The Theory of Re-Incarnation Expounded." She calls it "A Sketch of the Theory of Existence that has been gradually built up on the basis elaborated by" the late Allen Kardec; and she announces herself to be "an English disciple of the School of Spiritist Philosophy founded" by that gentleman. We cannot say that we ever heard of him before, but he appears to have been a rather copious writer, and, if his style is like that of his English disciple, his volumes must be uncommonly hard reading. Miss Blackwell's "Sketch" fills some forty pages of close small print, and though she makes a most liberal and generous use of capital letters in the Immense Vastness and Depth of Potentiality of Expression of which she has evident profound Belief, yet we dare not pretend that we comprehend it; and as excuse for this dulness we must quote one or two specimen sentences. Thus, she says—"We are told by the more advanced minds with whom we are beginning to enter into communication, that IT—the Absolute, Self-Existent Source and Container of all things—may be approximatively conceived of by us as Intelligence (Essentiality), Thought (Movement or Diversity), and Fluid (Source of Substance and of Life); what we call the 'Universe' having no original or independent Existence, but being the Ultimation, into the plane of Derivation, of the Causal Possibilities inherent in the Divine Essentiality;" and that, "we see that the old idea of Creation, as the *making of something out of nothing*, must give place to the idea of Creation as an evolution, into the plane of corporealised manifestation, of the potentialities of Self-Existent Reality." The nearest idea that we can form to ourselves of the Creative Process is, we learn from the Spirits, "the gradual assumption, by the Efflux of the Divine Thought, of a state or mode of Concretion only to be remotely imagined by us as that of a Fluid of a quintessential subtlety inconceivable by our present mental organs. This Primordial Fluid, which contains all the elements of Derived Existence, and which may, therefore, be said to be both the matrix and the generator of the Universe, is not God, but is the first Substantiation of the Efflux of Creative Thought. Its molecules—declared to be the earliest product of the inter-radiations of that Thought, but quite out of reach of our observation or comprehension—are the substratum and continent of all the modes, forms, and attributes of Derived Existence that are to be progressively evolved from them by the attractive and repellant vibrations of the vast arsenal of Cosmic Forces." In this very superior kind of language we are taught how the creative power creates "the Psychic, Dynamic, and Material elements from which, by which, and through which Creatures are to be evolved; and in order that they may acquire the only co-relation to the Divine Autonomy that is possible to Derived Existences, they are created at the lowest state of rudimentary germination, and made to elaborate their own individuality under the fostering tutelage of those who, having started before them from the same point on the same path, are further advanced than themselves on the road to the common goal." In working this out we are certainly told some rather startling things—as that some species of plants not only have the rudiments of motility, sensibility, and contractility, but also "give evidence of possessing the first faint glimmerings of memory, confidence, and apprehension." But we can only afford to note one other piece of information—viz., that every planet is surrounded by a sphere, or region of matter in a mixed state, "which is the abode of the souls who have put off the body of more or less 'compact' matter appropriated to its surface, and have assumed the body of matter, more or less 'fluidic,' appropriated to its 'spirit-sphere';" and that "this 'fluidic-sphere' or 'spirit-sphere' is said to commence, for our earth, at about five miles from its surface." As some of our mountains are calculated to be more than five miles in height, our love of Alpine climbing is thus fully accounted for and more than justified, and we hope that the Thunderer will never again protest against or find any fault with the "rage" for mountain-scaling. We cannot notice the various examples of spiritual phenomena mentioned by Miss Blackwell, not even that of the little old spirit-woman who, when walking on gravel, made the same noise that an ordinary mortal would: Could we have persuaded ourselves that Miss Blackwell had amused herself with playing a practical joke on the Committee, we should acknowledge that her communication is a decidedly clever, though over-elaborated and ponderous, satirical parody of spiritist philosophy; regarding it as written in all earnest-

ness and sincerity, it seems too saddening an instance of misguided talent and misdirected labour to be merely called, as it has been called, portentous twaddle and balderdash.

The most greedy lovers of the marvellous will find plenty of food in the hearsay evidence and the communications given to the Committee; they include accounts "of trance-speaking, of healing, of automatic writing, of the introduction of flowers and fruits into closed rooms, of voices in the air, of visions in crystals and glasses, and of the elongation of the human body." The "spirits" are luminous and transparent, so that the wall can be seen through them, yet they throw shadows. Tested by a delicate thermometer, their hands are of the same temperature as that of the room; but on waving their hands the air becomes intensely cold. They dissolve and reappear like views of a magic lantern; but they laugh aloud, their clothes rustle like silk, and sometimes they tread so heavily as to make the floor vibrate. And so on. One cannot but think that if even spiritualists would peruse their statements in cold blood they might arrive at much more common-place solutions of, at least, some of the tales they tell than the theory of spirit phenomena. Lord Lindsay says that at one time he "used to see the spectre of a black dog. It seemed to glide along. I often went up to it, and sometimes passed a stick through it." And he adds—"It was the result of overwork. I was at that time studying for the army, and reading sixteen hours a day." But it did not occur to him to refer his later visions also to mental strain and excitement.

Some of the members of the Committee send communications of a very different character. Mr. Grattan Geary concludes his by saying, "The most remarkable phenomenon brought to light by the labours of the Committee is, in my opinion, the extraordinary number of eminent men—never suspected to be otherwise than sane—who firmly believe that spirits do what spiritualists assert them to do." Mr. Henry Jeffery, in a very cautiously and moderately expressed communication, perhaps the most sensible bit of writing in the whole volume, directs attention to the very unsatisfactory nature of the alleged "spiritual" utterances; that these have given us "no information of any practical value, no new thoughts, no fresh expressions of worthy sentiments," but, on the contrary, their general character "has been either frivolous or absurd"—so that, if accepted as messages from the departed spirits of relations or friends, "a belief in them cannot be reconciled with an exalted conception of the state of disembodied souls," and is for the most part "repugnant to minds of high religious and spiritual faculty." He remarks that "the theories propounded by the witnesses are vague and contradictory, and that there is a scarcity of evidence from persons accustomed to investigate, in a scientific manner, physical facts, which these phenomena are primarily to be"; and that the phenomena inquired into "are of a kind particularly open to imposture and credulity; that many of the votaries of spiritualism have such an eagerness of faith as to render their evidence unreliable; and that the boundary between wilful imposture and self-deception is not a clearly defined line, but an extensive mental territory, on which many popular delusions have, for a time, played their pranks and disappeared." Nevertheless, he observes, "Several of us have witnessed some remarkable phenomena which we have not been able to trace to imposture or delusion; and these, added to the gathered testimony of respectable witnesses, justify our recommendation of the subject to further cautious investigation."

If such an inquiry is to be of any real value and service, it must be entrusted, not to a large hotch-potch Committee of Medical Practitioners, barristers, clergymen, civil engineers, women, and what not, like the Committee of the London Dialectical Society, but to a very small Committee of really eminent scientific men—men who will carry on their researches by help of true experiments and tests, as Faraday did when he inquired into table-turning, and work out an investigation into the nature of the so-called "Psychic Force" as Faraday worked out the science of magnetism.

Finally, Dr. Edmunds very properly points out the dangers run by those who practise "spiritualism." He says that, of the few people who were conspicuous either as advocates or "mediums" in connexion with the spiritualistic phenomena that had come under his own notice, "one has been the subject of well-marked mental illness, and another has been confined in a lunatic asylum." And plenty of evidence could be found, we believe, both at home and in America, to show that in indulging in "spiritual" *séances* and the like pursuits excitable and sensitive persons run the most serious risks of injury to mental and bodily health.

THE WEEK.

TOPICS OF THE DAY.

It will be in the memory of our readers that Mr. Corrance has a Bill on the subject of Poor-law Medical Reform, which is to be introduced early next session. This Bill, it is understood, will embody the principles which it has been the business of the Poor-law Medical Officers' Association to promulgate. We are glad to see from a circular which has been sent us that the health of the President of the Association, Dr. Rogers, is sufficiently restored to allow him again to take a prominent part in its proceedings. The same circular, we notice, contains a call on the members of the Association to forward their annual subscriptions. The expenses attending the introduction of Mr. Corrance's Bill will be considerable, and funds will be required. The annual subscription to the Association is only five shillings, which should be forwarded at once to Mr. J. Wickham Barnes, the Secretary.

We hear of a rumour that there is a movement amongst certain Members of the Royal College of Surgeons, or their friends, to bring their claims prominently before the Council of the College, in order to obtain their election as Honorary Fellows under that section of the College Charter which allows the election of Members of twenty years' standing. Without expressing opinion on individual cases, we think that the Council will do well to discountenance Fellowship by election except in case of Members who have passed the meridian of life, and who have fairly earned the distinction. To grant it to men who are in the full tide of life, and who have only to burnish up the necessary knowledge to pass the examination which would entitle them to it, is scarcely fair to the great mass of Fellows who have obtained the distinction by the usual and more difficult path.

The Managers of the Royal Infirmary, Edinburgh, are advertising for a General Superintendent of the Infirmary, who is to have the general control of the whole establishment. A gentleman with a Medical education is preferred. The salary is to be £420 per annum, with a house, or £80 until the house be provided.

The election of Assistant-Physician to Charing-cross Hospital is postponed until the month of January.

FATTY DEGENERATION.

K. Voit (*New Rep. Pharm.*, vol. xx., p. 340) has recently contributed a highly interesting paper on this subject, containing the results of his own experiments. The fatty degeneration of organs, occurring so frequently in disease, may be brought about in one of three ways: the fat which takes the place of tissues (and that fat does take the place of tissues we have confirmed by our own researches) might be derived from the fat in the food; it might be derived from other parts of the body which usually contain fat, as, for instance, the subcutaneous adipose tissue; or it might be generated in the cells of the affected organs by the splitting up of the albuminoids contained in these into nitrogenous and fatty substances. In the

last case, the nitrogenous products of the metamorphosis of albuminoids—as, for instance, urea—would not be altered in amount, but the consumption of oxygen in the body would be diminished. Further, it is possible that the cells of the structure may become atrophied, and disorganisation of the tissue ensue, from more albumen than usual being decomposed; more especially that which enters into the structure of the cells themselves. Obviously, in this case the azotised constituents of the excretions would be increased, whilst the oxygen consumed would be either diminished or unaltered. The happy idea was conceived of giving phosphorus to dogs, after depriving them of food for several days—it being well known that fatty degeneration of many, if not all, the organs is produced by the administration of phosphorus—and this was found to be the case when food was withheld. As the animals ingested no food, the fat here could not have come from that source, nor from the adipose tissue of the body, for it was found that that had all disappeared, and, in consequence of abstinence from food, the animals were emaciated before the administration of the drugs. Hence the fat must have been the result of metamorphosis of albumen in the organs themselves. A dog, placed in Voit's respiration apparatus, exhibited a diminution of 47 per cent. in the carbonic acid excreted, and of 45 per cent. in the oxygen absorbed, when phosphorus was administered. The excretion of urea, previously constant, rose after the ingestion of the phosphorus, and increased as the symptoms of poisoning became more severe. The experiments of Voit, with whom Bauer was associated, show that in phosphorus-poisoning fatty degeneration is due to two causes—the decreased oxidation of fat, and the increased production of fat by the metamorphosis of albumen. It is shown that this latter is independent of the supply of oxygen, and is dependent not so much on the oxidation of albumen as on the decomposition of the oxidised products of this substance. Voit and Bauer observed that no abnormal products are found in the urine except sarcolactic acid in fatal cases, thus confirming the results of Schultzen and Riess. Leucin and tyrosin were looked for in vain in the urine of the poisoned dogs, although, as is known, these substances are abundant in cases of acute atrophy of the liver. They were found, however, in the liver, heart, and blood. It is thought very probable that leucin and tyrosin are among the first products of the decomposition of albumen, and that the nitrogenous bodies formed by the metamorphosis of albumen are changed into urea in the slighter cases of poisoning by phosphorus, whilst in the more severe cases the decomposition is imperfect, and the less simple products of decomposition are excreted.

Voit is of opinion that the main difference between acute atrophy and phosphorus-poisoning lies in the greater rapidity of degeneration which occurs in the former disease. Since the fat in fatty degeneration is solely that which has been formed in the organs, and either not oxidised or formed in too great quantity, it cannot be said when the diseased process begins and the healthy process ends. At first, the fat will be formed in its usual quantity from the circulating albumen, then from the stored-up albumen in the organs, and finally from the albumen forming an essential constituent of the cells; and thus the disorganisation and destruction of the organs composed of these is brought about.

THE HAMPSTEAD SMALL-POX HOSPITAL.

Notwithstanding the inquiry respecting the condition of this institution, still pending, has revealed some unpleasant truths, the admissions into the Hospital have recently increased by twenty a day. During the past fortnight 71 fresh cases had been received, 7 had died, and 36 had been discharged, leaving 141 under treatment, as against 113 at date of last report. The total number of patients treated up to the present time had been 5696, of whom 1073 had died, and 4482 had been discharged.

ARMY MEDICAL DEPARTMENT.

The *Army and Navy Gazette* states that, in consequence of the approaching retirement of an Inspector-General of Hospitals, there is likely to be a run of promotion through the Army Medical Department. In this we believe our contemporary to have been not quite correctly informed, as no Inspector-General, so far as we have learned, at present contemplates retirement. We understand, however, that Deputy Inspectors-General Summers and Meikleham are shortly about to retire.

Rumour also has it that Inspector-General Muir, C.B., is soon to return to England from India to the Sanitary Branch of the Director-General's office, and will be succeeded as Principal Medical Officer of British Troops in India by Inspector-General Beatson, C.B.; also that Deputy Inspector-General F. W. Innes, C.B., at present principal Medical Officer at Woolwich, is likely to be promoted to the vacancy in the list of Inspectors-General on the home establishment caused by Dr. Beatson's return to India, and will succeed him as principal Medical Officer at Netley.

A second tour of Indian service in the highest paid appointment in the Army Medical Department is a piece of good luck not likely to fall to the lot of many Medical Officers of Dr. Beatson's rank, and affords a stronger instance than any that has yet occurred of the inequalities of fortune resulting from the system of promotion by selection of younger men to offices in which there is, practically, no limit to tenure. Dr. Beatson is still very far from the age at which retirement becomes compulsory, and while he is reaping the rich harvest of Indian pay and allowances, amounting to £3360 per annum for five years, other Medical Officers, still unpromoted to the inspectorial rank, are drawing near the 55 years of age which will compel them to retire in the subordinate grade.

The recently published Army Warrant, however, in its provisions for the tenure of the command of regiments for five years only, holds out some reason for the hope that a similar regulation, adapted, of course, to the different circumstances of the case, will shortly be applied to the Medical service of the army. We have long held that to be the only course for keeping the current of promotion flowing at an equable rate, and we hope at last to see it enforced.

THE HEALTH OF OXFORD.

When the Vice-Chancellor issued his minute, some weeks since, respecting the revaccination of all young men who should come to Oxford during the present term, some persons thought the regulation severe, or at least unnecessary. The health of Oxford at the present time, however, will prove that the Vice-Chancellor exercised a wise and sound discretion in the matter. Thus, the returns of small-pox cases last week show 25 fresh cases and 5 deaths; total number under treatment, 40; cases in Hospital, 27; in other parts of the town, 13; 1 case not under treatment. Of the 27 patients in the Hospital, 12 are convalescent; of the 25 fresh cases, 13 have been sent to the Hospital; of the 5 deaths, 3 occurred in the Hospital. With the view of meeting contingencies, the House of Convocation have decreed "that the delegates of lodging-houses be authorised, if they find it necessary, to place a temporary Hospital in the University park, or in the grounds attached to the Museum, as may be recommended by the Medical advisers of the delegates." Dr. Child, the University Sanitary Inspector, states that, though small-pox is still active, the precautions taken had minimised the risk as regards the University. The present measure giving provisional powers was desirable, but purely precautionary.

Since writing the above, we learn that the epidemic of small-pox at Oxford seems at last to be showing signs of abatement. The weekly returns, which are looked after by an active committee of the Local Board, and by the Medical Inspectors of the University and City, show a decided decrease within the last fortnight. The number of

new cases this week is eight, against sixteen last week; and the deaths amount to three, as against five. Of the three deaths this week, two were unvaccinated cases. Much distress prevails among the poorer lodging-house keepers, whose occupation has been taken from them by the epidemic.

PROVINCIAL MEDICAL SCHOOLS.

The annual return of the number of students pursuing their anatomical studies at the Provincial Medical Schools has just been made to Dr. Ogle, the recently appointed Government Inspector of these Schools. From this report it appears that the total number amounts to 368, being an increase of eleven over the number of last year—distributed amongst the following recognised institutions, viz. :—

	1871.	1870.
Manchester Royal School of Medicine and Surgery	111	98
Birmingham Royal School of Medicine and Surgery	60	76
Liverpool Infirmary and School of Medicine and Anatomy	54	58
Leeds School of Medicine	45	46
Bristol Old Park Medical School	36	30
Cambridge University School	27	—
Newcastle-upon-Tyne College of Medicine	25	35
Sheffield Medical Institution	10	14
	368	357

From the above statement it will be seen that, notwithstanding the slight increase in the gross amount, there is a falling off at all the Schools except those of Manchester and Bristol. There has been a slight addition to the number attending the Metropolitan Schools since that published in the *Medical Times and Gazette*. The number of new entries now amounts to 472, making the total number of registered students now pursuing their Professional studies in this metropolis 1491, or, with those in the Provincial Schools, a grand total of 1859. Well might John Abernethy exclaim, "What is to become of you all?"

HOMŒOPATHY AND SPIRITUALISM.

As a matter of personal experience, we have often observed a correlation between the superstitions of homœopathy and spiritualism. The supporters of the one delusion are very frequently the victims of the other. It may have the good effect of liberating some homœopathic spiritualists from at least one of the phases of error to which their peculiar mental constitution renders them liable, to be informed that, according to the evidence of Miss Houghton before the Committee of the Dialectical Society for the Investigation of Spiritualism. This lady says that the spirits with whom she is familiar—and of whose beneficence, especially in aiding the sick, she said she could cite numberless instances—used, during the last five years of the life of Miss Houghton's mother, to prescribe for her, through her daughter, either allopathically or homœopathically, as might be most suitable at the moment. Now surely such gross inconsistency should be sufficient to shake the faith of homœopathic spiritualists either in the active interference of spirits or in the homœopathic system of Medicine. A doubt having been induced on one point, the other likewise might be found to give way on further examination. As for ourselves, being neither spiritualists nor homœopathists, we do not think there is a pin to choose between the two systems.

TESTIMONIAL TO A PHYSICIAN.

Dr. G. C. Millar, the Medical Officer of the Hackney Workhouse, has been presented with a handsome dressing-case by a number of patients who had been under his care at the temporary Hospitals for small-pox in connexion with Hackney Union. Moreover, the Guardians voted £100 lately to Dr. Millar for his services.

UNQUALIFIED PRACTITIONERS.

Scarcely a week passes without cases being reported in the newspapers, illustrative of the evils and dangers attending the treatment of disease by unqualified Practitioners. In a case which occurred last week, an inquest was held in Shoreditch, by Mr. Humphreys, the coroner, on the body of a woman, aged 43. It appeared from the evidence that, on the Sunday week previously, the deceased was in her usual health, but became unwell towards night, and gradually worse until Wednesday, when Mr. Morris, a "chemist," came to see her, and ordered some medicine for her. He said the woman was suffering from a severe attack of erysipelas. On Thursday morning she was found dead in bed. Mr. Morris was applied to for a certificate on the assumption that he was a qualified Medical Practitioner, and he called in a Doctor named Lilley, who refused to give a certificate. Mr. G. D. Phillips, Surgeon of Police, made a post-mortem examination of the deceased. Death resulted from extensive disease of the lungs. There was not the slightest trace of erysipelas, and if Mr. Morris treated the deceased for that disease he made a gross mistake. The coroner in summing up said—"All I can say is, the Government ought to step in and stop the pernicious practice which exists, whereby duly qualified Practitioners are cheated out of their fees—for, if a chemist visits a patient and receives a fee, he is liable to a penalty of £20. A chemist is a very useful person in the sphere in which the Government directs he should move; but the law should be enforced in all cases where he oversteps the prescribed limit." The report in the papers states that "a verdict was returned in accordance with the Medical evidence." It is to be regretted that the exact words of the verdict were not made public. Did the jury censure the unqualified Practitioner? Did they offer any opinion on the evils of illegal practice? These are questions which we hope may be answered.

POISONING BY SYRUP OF POPPIES.

Infantile mortality from poisoning by syrups, cordials, and carminatives was generally thought to have all but ceased. "Carminatives" and "cordials" have of late years gone almost out of use, and the evil effects resulting from them have diminished in proportion. Syrup of poppies now appears to be the favourite "soother" of infants; at all events, the papers last week contained two cases in which death resulted from the administration of this "harmless dose." In one case the child was eighteen weeks old, and a teaspoonful of syrup of poppies was administered to it, in consequence of its being restless after vaccination. The child died in about twenty-six hours. Eventually the verdict returned was—"That the deceased died from the administration of sixty drops of syrup of poppies, given by its mother medicinally, in ignorance of its poisonous properties and effects." In the second case the infant was five weeks old, was suffering from a bad cough, and three parts of a teaspoonful of the syrup of poppies was administered to it, and it died in the course of a few hours. The verdict was that "Deceased had died from an overdose of poison, administered with no felonious intention." Much misapprehension exists in the public mind respecting the strength of syrup of poppies. It is always a most uncertain preparation, and should never be used except under the advice of a Medical Practitioner.

A TEMPERANCE MOVEMENT.

Alcoholic stimulants, when pure and used with moderation and care, are not to be condemned. No one is justified in showering on them indiscriminate abuse. When their use is carried to excess, or when temperance ceases to be the law that regulates the imbiber of "strong drinks," then they are a curse indeed. The French Academy of Medicine, in consequence of the abuse of alcoholic drinks having much increased in Paris since the civil war, has lately appointed a Commission to draw up a popular warning against strong liquors, from which it appears that brandy and absinthe are the curses and ruin of the working-classes.

PROFESSOR HUXLEY'S LECTURES ON THE ELEMENTARY PHYSIOLOGY OF MOTION, CONSCIOUSNESS, AND THE SENSES.

PROFESSOR HUXLEY, on Monday last, commenced a course of eight lectures at the London Institution on the above subjects. Besides the pupils of the Institution, there was a very large audience of both sexes and all ages. The introductory lecture was admirably suited to attract the attention and excite the interest of his non-Professional hearers, and particularly of the younger portion of them, to whom the course is more directly addressed, and of whom there will be an examination at its conclusion, and prizes awarded to such candidates of either sex under 18 years of age as may have attained the most extensive knowledge of the subject of the lectures.

Commencing with the saying of an ancient philosopher, that in all her operations "Nature worketh by motion," Professor Huxley observed that although very generally true, the aphorism does not include all the phenomena of nature. That the conditions of our consciousness, sensations, ideas, emotions, and volition, although frequently related to and connected with motion in its various forms, are yet essentially distinct from it. Motion as respects individuals is of four kinds:—(1) Independent, or entirely extraneous to, and uncontrollable by, the individual; (2) voluntary; (3) involuntary; (4) mixed, or partly voluntary and partly involuntary. The first he exemplified by the general street traffic of London, the falling of a pebble, or the floating in the air of a feather or piece of down, all of which are perfectly beyond the control of the individual will—at least, such is the general idea concerning motions of this sort, and until the spiritualists establish the contrary opinion by more irrefragable evidence than they have succeeded in bringing forward, such will Professor Huxley's opinion continue to be. Voluntary motion he exemplified by the act of flexion of his own forearm, the mechanism of which he demonstrated by diagrams and by the dissection of the forearm of a rabbit. He traced the whole series of conditions on which the power of flexing the forearm depends, supposing himself to have been requested to perform that motion: 1st. That the weight in his hand should not be greater than he could move. 2nd. The integrity of the tendon of the biceps. 3rd. That the muscle should retain its contractility. 4th. The integrity of the nervous connexion with the spinal cord. 5th. The integrity of the spinal cord above the points of issue of the nerves supplying the limb. 6th. The integrity of the cerebral hemispheres. 7th. The integrity of the auditory nerve. 8th. The integrity of the auditory apparatus acting on the nerve. Commencing again with the sensory organ, he traced the series back again through all its links, and made the matter so plain and distinct that the youngest of his audience could hardly have failed to understand him. This part of the lecture, in fact, struck us as a masterpiece of elementary exposition. The involuntary motions he exemplified by the action of the heart and iris, and the mixed motions by those of respiration. He also described how, under certain circumstances in which artificial conditions overcome the will, as in galvanic action, severe pain, and such-like, voluntary movements become involuntary. The object of the lectures, however, he stated, was not to account for the relation between bodily motion and mental states, which is incomprehensible in the present state of our knowledge, but to analyse the conditions necessary to motion. Finding, at the conclusion of the programme of his first lecture, that he had still a little time to spare, Professor Huxley proceeded to the subject of his second lecture—namely, the contractility of muscle. He exemplified the peculiarity of contraction of all living contractile tissues, as differing from the contraction of other substances—such as iron on decrease of temperature—by being a change of shape without diminution of size. He described in such vivid terms the phenomena of contractility as they may be observed in their simplest and most rudimentary form in the colourless corpuscles of the blood, on a warm stage under a powerful microscope, as must have stimulated to a most healthy and invigorating degree the curiosity of his younger hearers, many of whom, doubtless, must ever since have been longing for the possession of an instrument capable of displaying such wonders as blood discs, granules, nuclei, and contractile colourless corpuscles. As an educational effort, such a lecture as we had the pleasure of hearing from Professor Huxley, on Monday last, was first-rate. Its true value is to be estimated not alone by the lucidity and extent of the information which it imparted, but by the thirst for more which it must have excited.

DEATH OF DR. WILLIAM DANIEL MOORE.

WE deeply regret to have to announce the death of this distinguished writer and Physician, and excellent man, which took place at his residence, 40, Fitzwilliam-square West, Dublin, on Saturday last. Dr. Moore's health had been failing for some years, and lately his condition had given his friends the greatest anxiety. Next week we hope to give our readers some account of the life of one of the most laborious Medical writers and workers of the day—one to whose learning, industry, and talent our own columns have been so frequently indebted.

OFFENSIVE UTERINE DISCHARGES.

WE understand that Dr. John Day, of Geelong, has recently been using with great advantage a new kind of pessary as a means of removing the offensive odour given off in certain uterine diseases, as cancer, etc. These pessaries are made by gently melting cacao butter, and then adding to it ozonic ether in the proportion of a drachm of the latter to an ounce of the former. The addition of about one-eighth part of white wax will give greater solidity to the mass, and in hot weather seems an improvement. Each pessary should weigh about a drachm and a half. The mass thus prepared retains its active agent, the peroxide of hydrogen, for a month or longer, as may be readily proved by scraping a few fine shavings from a pessary on a drop of blood or pus lying on a piece of white paper, then folding the paper, and holding it between the forefinger and thumb for a minute or two, so as to dissolve the cocoa butter, and lastly adding a drop of tincture of guaiacum (oxidised if pus is used), when a blue reaction will at once take place. We may take this opportunity of directing the attention of our readers to a very commodious and inexpensive case of the test-fluids requisite for the detection of blood, pus, mucus, and saliva, which has been prepared, under Dr. Day's direction, by Messrs. Robbins and Co., of Oxford-street.

SOCIETY FOR THE RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.

A general meeting of the members was held on Friday at the Society's rooms; Dr. Burrows presided. The statement read showed that the total receipts for the past year were £764 15s., and the total resources of the Society at the end of the year 1870 were £4908 2s. 6d. After deducting the grants made to widows and orphans, and for expenses, the balance in hand was £1848 up to the end of 1870. This most valuable Society is not supported as it deserves to be. It is lamentable to think how many persons there are entitled to belong to it that hold aloof.

FROM ABROAD.—INJECTION OF SEROUS COLLECTIONS WITH ALCOHOL—THE SIEGE OF STRASBURG—OSTEO-MYELITIS AND PURULENT INFECTION.

M. Monon has read a paper at the Société de Chirurgie, in which he recommends a simple mode of Treating Serous Collections by the Injection of Alcohol. He finds that the equilibrium between secretion and absorption may be re-established by removing a very small quantity of the fluid, and then injecting a still smaller quantity of alcohol at 40°. His

attention was first turned to the point about three years since, when he was consulted for a goitre. A tablespoonful of fluid was removed by a small trocar, and a somewhat less quantity of alcohol was injected through the cannla. No pain or inflammation followed, and a diminution of the tumour soon took place. The injection being repeated in a fortnight, the cure became complete. He has employed the same means successfully in hydrocele in three cases (he himself forming the subject of one of these), and contrasts the simplicity of this mode of treatment, which allows the patient to at once go about his affairs, with the more painful and tedious procedure in the ordinary mode of injection. A modification of Pravaz's syringe, by Luer, was employed, and no pain or inconvenience resulted while absorption took place. When this was slow, the injection was repeated once or twice. The quantity of alcohol injected varied from two to five grammes. M. Dolbeau remarked that, although little could be said of the plan at present, it deserved a trial, its originality consisting in the not emptying the tunica vaginalis, as in ordinary injection. M. Després pointed out the resemblance the plan had to that adopted by Maisonneuve, of first withdrawing a portion of the liquid of hydrocele, and then injecting it again, under the idea that its exposure to the air might confer upon it modifying properties. M. Verneuil was of opinion that this operation, followed as it is by no ill-effects, is well-deserving of farther trials in hydrocele, but he hesitated in recommending its extension, as M. Monod does, to the various forms of hydrarthrosis, and certainly he would not venture to employ it in order to cure more rapidly an hydrarthrosis of the knee-joint. It is even questionable whether in M. Monod's cases the small quantity of alcohol injected exerted such modifications on the tunica vaginalis and the contained fluid as to have led to the cure. Possibly the mere puncture would in these cases have sufficed. At all events, as relapse frequently occurs after simple treatment of hydrocele, M. Monod's success requires confirmation. M. Trélat observed that much depends upon the date of the hydrocele; for when this is recent it sometimes disappears with astonishing facility. He referred to a case of double hydrocele, in which the injection of the one side rapidly cured the hydrocele of both sides. He has, indeed, met with three examples of this. In young subjects, too, recent hydroceles are easily cured. M. Larrey said that hydrocele is so easily cured in young subjects, that mere puncture will usually suffice. M. Monod, in reply, said that he was not desirous of instituting any new mode of practice, but only to call attention to an innocent operation. He regretted that his colleagues had confined their attention to hydrocele, and had not adverted to the case of cystic goître which he had related. He is quite aware that double hydrocele may be sometimes cured by injecting one side only; and he has met with a still more remarkable case, in which double hydrarthrosis of the knee was cured by an injection of one joint. All he was now desirous of was to induce his colleagues to investigate the effects of the injection of a small quantity of alcohol into serous collections.

We transcribe some passages from an interesting account of the siege of Strasburg furnished by Dr. Beaunis to the *Gazette Médicale* :—

"In spite of every day's emotions, one at last attained an astonishing impassibility, becoming a fatalist in spite of oneself—perhaps the only mode of living quietly amidst such a din. Indeed, one may become habituated to anything, even to being bombarded; and during the latter days of the siege it seemed as if one had never known any other kind of existence. Besides those whose affairs or duties compelled them to traverse the streets, there was an entire category of *bourgeois* and *rentiers* who were under no kind of necessity to leave their abodes, and yet they were to be met with everywhere, continuing, for better or for worse, their ordinary course of life. I have known old men who, during the whole siege, took their usual walks three times a day, frequenting the most exposed districts to gaze like true idlers on the mischief done during the preceding night. They had only to plant themselves against a wall when the tiles and chimneys came tumbling down, or slip into an alley when they heard the well-known hissing of a shell or the explosion of its fragments. A singular fact, which was remarked by all the Doctors, was that so small an amount of disease was observed during the siege. Apart from the wounded, the sanitary condition was excellent, the children alone suffering from a want of milk, and great mortality among new-born infants resulting from this cause. The immunity was the more strange inasmuch that the conditions of habitations and food were far inferior to their ordinary state, and it is only to be explained by the powerful influence exerted by the moral over the physical condition. In ordinary times the slightest derangement attracts attention, and we are on the look out for ailments; but under these changed circumstances the moral impressions to which one was a prey dominated over the entire economy. For them alone was there room, and the fleeting *malaises* and trifling indispositions which constitute three-fourths of our practice were no longer met with. When disease was really perceived, the economy was already attacked in its innermost depths, and the subjects fell like a mass, and often never rose again. When the siege was over, matters were changed, reaction making itself felt; and among many of the inhabitants a class of affections sprang up, which some Physicians regarded as a special morbid entity, which they termed cellar-disease (*maladies des caves*), but which in reality was only the result of the combined influences which had been in operation during the siege—bad lodging and diet, with moral emotions and exhausting fatigues of every description."

M. Demarquay, in continuation of a former communication (*Medical Times and Gazette*, September 30, p. 414), read a paper at the last meeting of the Academy on "The Permeability of the Bones in relation to Osteo-myelitis and Purulent Infection." In his former communication he had insisted on the absorptive power of the medulla of the bones, the results of his experiments having confirmed those obtained by preceding inquirers; but as these only possessed a physiological interest, he felt desirous of ascertaining how far they explained the pathological phenomena which he had observed in osteomyelitis. To this end he examined the point whether pure pus, or putrid pus diluted with water, when injected immediately into the medullary canal, is absorbed and carried into the circulation. His experiments, twelve in number, were performed on strong male rabbits, from 60 to 120 drops of pus being injected by means of Anel's syringe into the medullary canal of the femur. The same results always followed—all the rabbits dying between the second and seventh day, after undergoing emaciation, and their temperature rising sometimes as high as 41° or 42° C. until just before death. The autopsies exhibited more or less phlegmon around the seat of operation, pulmonary congestion with pneumonic collections (*foyers pneumoniques*), congestion and ramollissement of the liver, spleen, and kidneys, and metastatic abscesses of the liver.

In respect to the question whether the deaths of the animals were produced by the absorption of the pus in its totality, or merely of its serous constituent, M. Demarquay observed that the appearances noticed by him so exactly accorded with those produced by M. Sédillot by injecting pus into the veins, that there would seem to be no doubt that all the elements of the pus were absorbed. And in order to prove that pus may thus pass from the medullary canal into the venous system, he instituted other experiments, in which he found that absorption by the medulla took place so rapidly that he was tempted to believe that there must be some point of direct communication between the medullary canal and the veins of the osseous tissue. Water rendered of a violet colour by means of fuschine penetrated so rapidly that at first it was erroneously believed that it had been thrown into the muscular tissue. All the viscera were coloured in violet; and in order to prove that pus itself might be in the same manner absorbed, water holding in suspension vermilion, oxide of copper, and gamboge was injected, the injected matters not merely colouring the bones, but penetrating to the heart, lungs, and liver. Similar sub-

stances injected into the medullary canal of the long bones of children issued by the emergent veins of the ends of these bones, which are much more permeable than their diaphyses. In relation to purulent infection as a consequence of osteo-myelitis, it is to be observed that intra-medullary injections penetrate into the general circulation like those which are practised in erectile tissues; and this must be permitted either by the osseous veins opening directly into the medullary canal, or by these separations only consisting of a thin wall, like the internal membrane, which yields to a feeble pressure. We can easily understand that pus in its entirety passes into the venous system, where we see vermilion, etc., penetrate with such facility. As a final consequence, it may be admitted that osteo-myelitis plays an important part in the production of purulent infection.

M. Vulpian, while admitting that the facts brought forward by M. Demarquay are of high interest, demurred to his explanation of a free communication existing between the medullary canal and the general venous system, inasmuch as anatomical researches have exhibited no difference between the vascular system of the bones and other parts of the body. In experiments which he had performed with Flourens, M. Vulpian had found purulent infection producible in the dog by crushing the medullary substance of the long bones, although, as M. Bouley has shown, the dog is an animal which is very refractory to suppuration and purulent infection.

M. Richet believed that M. Demarquay's injections penetrated the cells of the spongy tissue of the bones, wherein the venous network takes its origin, in which case its spreading thence into all the venous system is nowise surprising.

M. Giraldès observed that in this description of experiments we should carefully bear in mind absorption by the lymphatic system. Recent anatomical researches show that lymphatic vessels exist in greater abundance and in more organs than had been suspected. The vascular network gorged with blood which is found on the surface of the lungs of persons dying of purulent infection, scarlatina, variola, etc., is nothing else than network of the lymphatics. The same disposition exists at other parts of the body; and the researches made in tattooing by Follin, and those of Lacauchie, have demonstrated the great absorbing power of the lymphatics.

M. Colin and other speakers insisted that M. Demarquay had in his experiments produced rupture of the veins, and thus gained access for his injections; but he entirely denied this, affirming that he had always carefully injected the medullary canal without using any force.

AUTOBIOGRAPHICAL RECOLLECTIONS OF THE PROFESSION.

No. XVII.

By J. F. CLARKE, M.R.C.S.,
For nearly forty years on the Editorial Staff of the "Lancet."

A STRANGE CHAPTER IN THE HISTORY OF MEDICINE.—*Continued.*

Experiments on the O'Keys—Failure as to the expected Results—Is Mesmerism entirely False?—Should we not further Investigate it?

As might have been expected, the experiments carried on by Dr. Elliotson at University College Hospital in the summer of 1838 gave rise to a desire on the part of many persons that some investigations should be made into its assumed influence by unbiassed and capable individuals. This desire was expressed by several persons to Mr. Wakley; and accordingly an appointment was made on August 16, 1838, for the girls O'Key to be present at Mr. Wakley's house in Bedford-square. It should be stated that on a previous day Dr. Elliotson had exhibited several of the results which he considered to have arisen from magnetic manipulations and processes. Dr. Elliotson on this occasion conducted the experiments entirely himself. Mr. Wakley did not believe in the reality of the phenomena displayed, and accordingly the appointment was subsequently made for the 16th, as stated above. In consequence of the note of Dr. Elliotson not arriving until twelve o'clock on the day appointed for the meeting (to be held at three), Mr. Wakley had not invited any persons to witness the experiments; but Baron Dupotet, Dr. Richardson, Mr. Hering, and myself had been invited by Dr. Elliotson, and attended accordingly. Mr. George Mills, the sub-editor of the *Lancet*, was also present. The experiments were first performed on Elizabeth O'Key, and were repetitions of those which had been performed on many occasions by Dr. Elliotson with various results. The first experiment had reference to the powers of nickel in producing "startling mesmeric effects." Dr. Elliotson believed that this metal exerted a more powerful influence on O'Key than any other agent. On this occasion, the girl, seated in a chair, being, as was stated, in the "ecstatic delirium," a piece of thick paste-board was placed in front of her face, and held so that it was impossible she could see what was passing below or in front of her. The experiment was to test the nickel in opposition to lead, which, Dr. Elliotson asserted, might be employed freely without producing any effects whatever. Mr. Wakley seated himself immediately in front of O'Key, and at a short distance from her. He managed to hold the metals in his fingers in such a manner that she could not possibly know from merely touching the substance, or from its form when he applied it to her hands, which metal was being used. The lead was said to be ineffective when applied to the skin, whilst the nickel produced most extraordinary results. In the first experiment the lead was applied alternately to each hand of the girl, but in such a manner as might have led her to believe that both metals were used. There was no effect whatever. After some time, Dr. Elliotson having held the nickel in his hand to charge it strongly with magnetic influence, the metal was applied. Of course the metal had been increased in temperature by having been in Dr. Elliotson's hand. The lead had been held by Mr. Wakley previously, to heat it in a similar manner. Thus mere temperature would offer no guide to the girl as to which metal was being employed. The nickel was now used as the lead had been applied. A pause ensued: but the expected results did not appear. In the space of about a minute the lead was again used, and then again; and after the last application of the nickel (the lead having been repeatedly applied during the interval) the face of the girl became violently flushed, the eyes were convulsed into a slanting squint, she fell back in the chair, her breathing was hurried, her limbs were rigid, and her back and abdomen assumed the position which is produced in an attack of opisthotonos. In this state she remained nearly a quarter of an hour. Now arose a dispute as to whether the results were obtained by the nickel or not—Dr. Elliotson contending that they were, but at a longer interval than usual; and Mr. Wakley declaring his belief that they were not. Besides, what was the value of experiments when no *certain* results could be relied on, and if the effects were to be attributed to one metal so long after another had been employed, as on that occasion? It was eventually decided that another experiment should be tried, Dr. Elliotson suggesting that nickel in its magnetised state should be alone employed. It was now arranged between Mr. Wakley and myself that no nickel whatever should be employed; and the moment Mr. Wakley received the magnetised nickel from Dr. Elliotson he put it on one side, and I, unseen by any person, placed it in my waistcoat pocket, and walked to the window, a distance of at least eighteen feet, and there I remained until the termination of the experiment. Mr. Wakley again employed both hands, but his fingers were so placed that it was impossible for anyone excepting the operator to know what he was holding. On applying the substance which he held in his left hand to the right hand of the girl, Mr. Hering, who was standing near, said, with much sincerity of feeling, in a whisper, "Take care, do not apply the nickel too strongly." In a moment after all the symptoms mentioned in the former experiment came on, only with increased violence. Dr. Elliotson again observed "that no metal but nickel had ever produced these effects; that they were most extraordinary"—in fact, "that they presented a beautiful series of phenomena." The paroxysm lasted upwards of half an hour. On retiring to another room, Mr. Wakley informed Dr. Elliotson that no nickel whatever had been used on that occasion—he had not even approached the patient with it; that the nickel had been put away unobserved, and that he had merely rubbed upon the skin of the girl a piece of lead and a farthing, which

he had respectively held in either hand, the metals being so held that no person could see what he was applying. Dr. Elliotson asserted that he had seen the nickel used; he believed Mr. Wakley had applied it without knowing it himself. He was positive that the effects could be produced in no other way. After a good deal of discussion, which at one time assumed an angry aspect, I was called forward, and produced the piece of nickel from my waistcoat pocket. The experiment was again and again repeated, always with the same results, the nickel on no one occasion having been used. Dr. Elliotson was much puzzled, but said he had no doubt that some satisfactory explanation would be found of the circumstances, which would explain all appearance of anomaly in the results. After the girl had some time recovered from the apparent paroxysm, Mr. Wakley suggested that the magnetised nickel should be rubbed over both hands freely on the skin in different places, but not exactly in the manner in which the lead and farthing had been employed. No effect whatever was produced by this application of the nickel. Dr. Elliotson after this admitted that he could "not explain how the thing had occurred; it was most extraordinary, but still he had not the slightest doubt that the subject would yet admit of a satisfactory explanation." Mr. Wakley contended that the experiments were conclusive with reference the character of the supposed phenomena, and that no further experiment was necessary. Eventually it was determined that the nickel should be again tried on the following morning. Accordingly, at nine o'clock the following morning the girls came to Mr. Wakley's house with Mr. Wood. The Doctor now stated that he believed that the apparent contradiction which had been exhibited on the previous evening arose from the circumstance that the lead in the last three experiments had been rubbed on that portion of the skin where the nickel had been applied in the first experiment, and thus the effects exhibited arose, in reality, not from the mesmeric influence of the lead or the farthing, but from the mesmerised nickel. Mr. Wakley replied that he believed O'Key could herself give a better explanation of the supposed phenomena than anyone else. The experiments were now again renewed, Mr. Wakley stating, however, that he could take no interest in them after the exposition of the previous evening. The piece of pasteboard being held before the girl's face, instead of applying the nickel, Mr. Wakley used the lead. The girl repeatedly fell back in the chair during these operations, in what has been called the "mesmeric sleep." The apparent sleep was produced so repeatedly from the use of the lead, that Dr. Elliotson said he must admit that he had been deceived in supposing that lead could not convey the magnetic influence. After a considerable time had elapsed, the nickel was applied to her hand in the same way that the lead had been, both metals being of the same temperature. Apparent sleep was still the result, without convulsions or rigidity. At length Dr. Elliotson proposed that the nickel should be applied to the inside of the lips. The two metals were therefore thus used—first the lead, then the nickel; but the lead by far the more frequently. Presently all the effects which were represented to be the results of the application of the nickel were apparent, and the patient appeared to be thrown into as violent a paroxysm as she had exhibited during the trials of the previous evening. Dr. Elliotson, in the performance of these experiments, complained "that the lead had been applied too soon after the nickel, that time had not been given for the latter to operate, and that it was not fair to use the lead so much more frequently than the nickel, but that the same chance should be given to the latter as to the former." Mr. Wakley, however, contended that in testing the truth and accuracy of the alleged phenomena any person would be justified in using the lead throughout the entire day, and not employing the nickel at all, especially since it had been contended that when the nickel was once used, frictions on the same parts at subsequent periods or remote dates, with any other metal, would produce the results which were attributable to nickel alone. Mr. Wakley being called away immediately after these experiments, Dr. Elliotson and Mr. Wood left the house; but the experiments were again repeated with a piece of nickel which I obtained from Mr. Garden's shop in Oxford-street. The results were quite as unsatisfactory as those of former experiments.

After the experiments on Elizabeth O'Key with the lead and nickel, a series of experiments were commenced on Jane O'Key—a tame imitation of her sister. These experiments, which were numerous and somewhat complicated, consisted mainly in the testing the supposed effects of mesmerised water and mesmerised gold. For instance, it was said that water which had been mesmerised by having the fingers of any individual immersed in it for a few moments, would "mesmerise" either of the O'Keys immediately they drank of it; that gold "mesmerised" by being held in the hand would have the same influence on the O'Keys if they touched it. Many experiments were tried with the object of testing this assumed power: they signally failed in proving any uniform or satisfactory effect. Mesmerised water and gold produced no effect; unmesmerised water and gold did produce apparent effects of a most startling kind.

Well, it cannot be doubted that the *exposure* of Mr. Wakley was conclusive on the point that nickel did not exert the specific influence which Dr. Elliotson believed it did on Elizabeth O'Key. But how are we to explain the phenomena which result from mesmeric "passes"? It surely cannot be assumed that the terrible convulsions, the opisthotonos, which were observable in the O'Keys during the experiments were the result of simple voluntary power. We believe it impossible that it could be so. The experiments of Mr. Wakley, whilst they proved some things, failed to prove others; and, in fact, left the subject under discussion still more mysterious. Most people doubted—indeed, denied—the reality of the prophetic power of Elizabeth O'Key, and some of the more striking phenomena exhibited by her sister Jane. But there were some experiments so fairly performed, and the results so palpable to all, that no one could fairly deny that there had been "effects," whose cause, by whatever name we might call it, was mysterious, strange, and called for calm and deliberate inquiry. Perhaps, after all, the question may be fairly put upon the grounds urged by a writer at the time when the experiments in question were performed. "How," says he, "does the question stand? The existence of somnambulism, and catalepsy, and delirium is admitted on all hands; and it is an elementary truth that one human being can affect another; that the whole system can be agitated in a great variety of ways, and driven into action voluntarily and involuntarily. But all these influences act through the senses; they are submitted to laws of distance, etc., and, under the same circumstances, give rise to phenomena which only differ in intensity in different individuals. The mesmerists assert that the body can be influenced independently of the senses, independently of the intellect, independently of anything that can excite the imagination; that in this respect it is like iron to the magnet, acted upon as an unconscious thing is acted upon, and thrown into mesmeric sleep, catalepsy, motion, delirium, by an unseen wave of the hand, or a look, a sovereign grasped for a minute, or water in which the fingers have been dipped. Now, we never declared any of these things impossible, we never denied the possibility of prophetic power; but we demanded evidence adequate to the improbability of the alleged phenomena. O'Key lays her hand upon a sovereign, and is fixed or prostrated to the earth; we lay our hands upon the same sovereign, and perceive no such influences; other persons place their hands on the mesmerised sovereign, and no effect is produced—a thousand persons handle the metal and remain unaffected. Gold is exchanged in every part of England by all classes of persons, and has been so exchanged for centuries, and sometimes in large "mesmeric batteries"; but no individual, as far as is known, has ever been thrown into a state of catalepsy by it, or exhibited the mesmeric phenomena. The experience of mankind is in the one scale, the O'Keys' in the other."

There is much cogency in this and similar kinds of argument; but it is doubtful whether the experiments to which they refer were sufficiently varied to test the real effects of animal magnetism, if such exist. It is admitted by most persons that there is such an agency; but great difference of opinion exists as to its power and degree. It is certain that Dr. Elliotson did much to bring the whole subject into ridicule, and to make sober-thinking men disgusted with it. It will remain for some future observers, probably, to draw more definitely the fine lines which separate the true from the false. The arguments advanced by believers in mesmerism is, that there is no phenomenon said to be caused by the mesmeric influence but has its counterpart in what we observe where no such agency has been applied. Thus, the somno-vigilium of O'Key had a likeness to somnambulism; her "midsummer madness," to delirium; and her long insensibility, to trance. Knowing so little as we do of the causes producing these different states of the nervous system, it would be at least premature to denounce "animal magnetism" altogether as "a delusion and a mockery." It has occupied the minds of some of the greatest philosophers, and some of the least imaginative amongst them have declined to altogether reject it.

Whatever may be the final result of future inquiries, the history of the O'Keys will always remain "a strange chapter in the history of Medicine."

THE HAMPSTEAD HOSPITAL INQUIRY.

Twenty-seventh Day.

The inquiry was continued on Thursday, October 26, before Mr. Henley and Dr. Buchanan. Mr. Williams and Mr. John Humphreys appeared for the Managers, and Mr. Collins and Mr. Bucknill represented the "complaints" in the *Times*.

The witnesses examined were the manager to Messrs. Nettlefold, eggs and butter contractors; Jones, the wardsman of the convalescent wards; Mr. Charles Game, a meat contractor; and Taylor, a wardsman. These all gave evidence relating to the management of the Hospital. Mr. Game stated that no "elods" or "stickings," nor even "chucks," were sent out by his firm to the Hospital—only the best parts of the animal. Jones and Ward gave evidence as to the filthy condition in which patients were admitted, and asserted the excellence of the food and the cleanliness of the arrangements. In answer to a question by Mr. Collins, Mr. Williams declined to call Mrs. Hughes, the night superintendent, on the ground that she had been in communication with the Assistant Medical Officers.

Twenty-eighth Day.

The witnesses examined on the part of the Managers were Mary Provost, a nurse; Mr. Drake, the Steward of the Hospital; and Mary Bonfield, another nurse. Nothing fresh was elicited. The nurses gave evidence contravening the charges, and the Hospital Steward deposed to the excellency of the provisions supplied.

Twenty-ninth Day.

On this day Dr. Grieve, the Medical Superintendent of the Hospital, was called and examined by Mr. Williams. He said that he had been Superintendent of the Princess Alice's Hospital at Darmstadt, had been in the Royal Navy as Medical Officer, and had held other appointments. The Hospital was built on an admirable plan, in his opinion, and the system of ventilation was perfect. The space allowed 1800 cubic feet to each bed. The bath-room and lavatories were quite separate from the wards, and hot as well as cold water was laid on to each, except to Nos. 4 and 5 wards (those which were brought from the Fever Hospital Grounds at Islington). The water-closets were also separate from the wards, and had a separate system of ventilation, apart from the wards. The bedsteads were of good construction, and the bedding was everything of the best. He then described his daily duties in the Hospital. At 9.30 each morning he went to the Hospital, and was there at prayers. At 9.50 the Medical officers had consultation. Between that time and 10·30 he saw the other officers and received reports from the artisans and others, and gave instructions for work to be done. The other part of the morning was taken up with going through the wards. Then he had to make the daily returns to the Local Government Board and to see visitors. He went to Islington at four, and returned from Islington at half-past six, and visited the Hospital at half-past eight. The duties of the Assistant Medical Officers were to take Medical charge of the wards allotted to them, to draw special attention to any case presenting any peculiar features, and they were to order the class of dietary requisite for each patient, and if the patient did not get what was ordered, the Medical officers should have reported to him. They should have called his attention to any case requiring "extras," and his sanction was to be obtained by initialing the order. Their duty was also to see the incoming patients, and they should have seen every case admitted. They knew their instructions, as he had given them repeatedly, and he had required that one should be in constant attendance at the receiving-wards when patients were admitted. If the night nurses had found short supplies of milk or beef-tea for the wards, it was their duty to have come to him for an order for more. This was requisite, for the Assistant Medical Officers did not make their evening visit until nine at night, and as the cook necessarily went off duty at some time the order had to be there before the Assistant Medical Officers came. The duties of the Assistant Medical Officers were purely Medical duties, and they should have reported any nurse who left her ward without the supplies necessary. He had general duties himself. He was put into the position of Medical Officer to meet a great emergency, with orders to do the best he could. He reported from time to time to the Committee, and consulted the Chairman of the Committee (Mr. Wyatt) whenever it was necessary. He was frequently in the wards at dinner-time, and spoke frequently to the people. On one or two occasions in the hot weather it was pointed out to him that meat was tainted, and he ordered fresh meat to be given. There were no general complaints of insufficiency. The man Ridley complained, not that there was not enough served out, but that the wardsman Gee served it out unequally on account of a "grudge." Another man, named Wade, said he could eat from a pound to a pound and a half of meat for dinner and drink plenty of milk for breakfast. The witness asked him to be weighed, and witness put the man on a working party, with the superior rations given to workers, and the man, when he went out, weighed 10 lbs. more. There were no complaints of shortness of milk. Mr. Kynaston had suggested only one thing in regard to the diets—that persons on the low diets should have an unlimited supply of milk; but witness pointed out that this would be impracticable, for no institution could be carried on on such uncertain data. The order was given in the beginning of June that complaints or remarks by the Assistant Medical Officers should be given in in writing on the daily reports. It had never occurred that any patients had wanted for food. The dietary tables contained a sufficient supply of food for the patients, but those tables (No. 1 and No. 2—the low and the ordinary diets) were not regarded at all as the limits of the dietary to be supplied, but only as guides as to the quantities to go to the wards. In addition to the ordinary diet on the dietary tables, the patients did receive other vegetables than potatoes. The reason he took the uncooked meat as a standard was that he believed the patients would prefer to see the meat cut off the joint; and then, too, the appetites varied, and the nurses could suit the appetites of those they served by giving some more and some less. Mutton was by order sent chiefly to the acute wards, and beef to the convalescent wards—this by requisition, at one time the convalescents saying they had too much mutton. He had heard no complaints of the hardness of meat—that it was like "gutta-percha," or as "hard as a board." This was untrue, and the only complaint he had heard was that one had had too much fat. He commenced his duties at Hampstead with a great objection to mechanical restraint, but he held that mechanical restraint was above all to be recommended as against manual restraint, and of restraint by the strait-jacket or by the sheet, he should choose the latter. The delirium in small-pox was a peculiar delirium, and was more frequent in men than in women. In persons who had been of intemperate habits it particularly showed itself, and partook of the character of delirium tremens. The patient would wake up suddenly in delirium, and so eunuing as to be on the sill of a window without the nurse having any idea of his condition. He had seen patients restrained with a folded sheet, but never with a twisted sheet or with a rope. The strait-jackets were obtained at the request of one of the Assistant Medical Officers. Where restraint was not used, the injury to the patients was likely to be great, for fights would go on, and once even Mr. Greaves was said to have been knocked down by a delirious patient. The Assistant Medical Officers had never once made anything like a complaint of persons being restrained by mechanical means, and they well knew his own dislike to restraint, as, indeed, did everyone in the Hospital. Light occupations were found for those convalescent patients who would work, and for those who could not or would not work plenty of amusements were found—papers, books, games, music, and the like. Each convalescent had to keep his bed in order, and assist in keeping the ward in order. Of those in the convalescent wards, 95 per cent. were physically well, of whom 60 per cent. were as well as ever they were in their lives, and they were only kept in to prevent a spread of the disease; in fact, they were in a sort of quarantine for the public safety. There was no nursing required in the convalescent wards—only an occasional poultice. The only punishment in the Hospital was stoppage of beer, and that was only inflicted, from first to last, in twenty cases. Coming as the patients did from all parts of London, they were not all "lambs," and it was absolutely necessary to have wardsmen for the men's convalescent wards. The beef-tea was made from the Australian extract on Liebig's process, and he tasted it every day. Arrowroot was added to supply starchy matter. It was very good. The cooking arrangements in the Hospital were excellent, and the food was roasted on an excellent principle by a gas apparatus. He considered the Sisters and nurses all did their duty admirably, and in addition to these convalescent help was given from the very first. With regard to the alteration which was made in the low diet, the Assistant Medical Officers got into the habit of sending down pieces of paper up till midnight, and the steward complained that he could not get to bed; and, for another thing, no idea could be obtained of the quantity required from day to day. Witness, the morning after this was complained of, called the

Assistant Medical Officers together, and spoke to them on the subject, and as Mr. Aikman considered that milk diet was better than beef-tea diet, witness made the changes of giving an extra pint of milk and reducing the beef-tea. Mr. Kynaston had made random statements as to patients having unlimited food and such-like; but he could not advance any facts in support of his views, and witness had asked him to show a patient who had suffered from want of diet or nursing, or anything else, but he could not and did not. Mr. Greaves had complained of a nurse being drunk, and witness spoke to Sister Frances, who discharged the woman. The Committee had given everything ordered, and there had been no undue economy recommended or acted upon. A limitation was placed upon the ordering of such extras as eggs and stimulants, by his signature being required, because they ordered a very large number day after day for a week. He had had no unpleasantness with Mr. Greaves in regard to the Poor-law Orders. Mr. Greaves had spoken to him about taking in patients who were sent when the Hospital wards were full. He had taken in some two or three above the ordered number, and on Mr. Greaves saying, "What would the public say if it were known the Hospital was over-full?" he said that he could defend himself before the public, for he believed he was doing what was necessary for the public good, for if these patients were sent back they would have spread the disease. These cases had been sent by the parishes even when it was known the Hospital was full, and the patients' lives would have been endangered if they had been sent back.

The witness was examined on many other points given in evidence at first. Some of the statements he controverted and others he explained, and made them appear in a light different from that in which they were first presented.

The inquiry was then adjourned.

Thirtieth Day.

Dr. Grieve was then recalled, and questioned by Dr. Buchanan. He said there was no hard-and-fast line laid down that Mr. Greaves, when he first came, should have no power regarding the diets, and it was certainly understood that if anything was required beyond the diets, Mr. Greaves should send a nurse for it. There were no complaints from Mr. Greaves at any time of an insufficiency of diet, and, as a matter of fact, Mr. Greaves did order extra supplies, even before, as well as after March 6, when an alteration was made in the low diet by an addition of half a pint of milk *per diem*. Mr. Greaves had certainly made no general complaint of the quantity of meat. If any patient had complained to Mr. Greaves of not receiving a sufficiency of food, as was stated to be the case with regard to the witness Owen, the butcher, who told Mr. Greaves he wished he could get a joint in, Mr. Greaves had the power to order the man another diet, and he should have mentioned the complaint. Mr. Greaves had actually ordered persons a diet and a half and two diets, but not the "extra" diet. It would certainly not be proper to give some patients, when in particular stages of convalescence, all they could eat. Mr. Greaves and the other Assistant Medical Officers had repeatedly ordered one and a half and two diets for one patient, and witness repeatedly told both Medical officers and nurses to give the patients all requisite food, and not to stint them. Mr. Kynaston had certainly made no definite report of shortness of nurses. He had said that the nursing was not "equal to Guy's"; but he expressed no nearer or more definite opinions—for they were not official "complaints" in any shape or way. There were certainly no "constant complaints" from Mr. Kynaston as to want of nurses, or as to their being overworked and unable to attend to the duties of nurses. The nurses worked hard, as they all did. The matter spoken of by Mr. Greaves with regard to that gentleman giving a sanction to restrain mechanically at one time and then retracting it was never referred to witness. Even if there had been any general regulation about mechanical restraint, the Medical officer of a ward would have had power to modify the regulation according to circumstances. The matter of mechanical restraint was never referred to witness, and his opinion and objection to it were well known. With regard to the dead body left in the bath-room, witness went about it immediately he was told of it, and found that it had been removed before he could get there, for one of the Sisters had taken the trouble to get the man to remove it. It might have been removed earlier if anyone had sent for the man, and when witness had the matter brought to his notice he at once severely reprimanded the man, and took steps to prevent such a delay again. When he was absent the senior officers were responsible for the care of the Hospital, these officers being the Senior Assistant Medical officer, the Steward, and Sister Frances. He had never been away from the Hospital more than on three occasions during the whole time the Hospital had been opened, except on official duties at Islington and these offices.

Dr. Buchanan: The Committee ought to have made you go away for a time. They should have compelled you to go, and not to remain so shut up.

Witness replied that the Committee were kind enough to try and draw him away from the Hospital many times, but he did not leave except for a couple of hours a day to go to the Islington house. He proceeded to say that it came to his knowledge in June that the Assistant Medical Officers did not regularly see the patients on admission because the Medical Officers could not be found, and witness at once requested the Assistant Medical Officers to leave word at what part of the place they would be when patients came, so that they could be found when wanted.

Cross-examined by Mr. Collins, the witness said he was in Glasgow Hospital in 1860 and 1861 for nine or ten months as House-Surgeon and House-Physician. He was twice at Greenock, once in 1858, and in 1859 for a year as Resident House-Surgeon of the Hospital, of practically 150 patients, but nominally of 250 beds. He left Greenock for a winter, and returned there for a time. He left Scotland for Shanghai in 1861, and fitted the *Acorn* as a Hospital ship, under a commission from Admiral Sir James Hope, and was in charge of it. He came home in the *Snake*, served in the *Warrior* for a few months, then left the Royal Navy, and went into private practice in Yorkshire. He went afterwards to Germany, and took service in the Princess Alice's Hospital at Darmstadt, but not as Medical Superintendent—that was a mistake. He was candidate for the charge of Homerton and also for Stockwell Hospital, but was appointed at Hampstead before the others opened. He had no fault to find with Mr. Aikman, and, to the best of his memory and belief, he did not say anything about Mr. Aikman taking one "Guy" and he taking the other. Mr. Aikman and the others had not made frequent representations about tying down or restraining; no complaints of such a character were made. The witness's examination then ran upon the number of nurses in the wards, especially in the children's wards, the purpose being to show the number of nurses to the actual number of children in an acute stage. The witness said that only one-half of the children at the worst time were in an acute stage, and the other half, therefore, did not require so very much attention. There were two night nurses to the acute cases. Children were kept in bed by a sheet being tied to the sides of the bedstead and broadly folded across the children. This was done with his sanction. The number of nurses in the Small-pox Hospital was in the same proportion as when it was the Relapsing Fever Hospital, and he was responsible for the number. Small-pox patients did not require more nursing than fever patients, for small-pox patients quickly convalesced, and they were brought in to assist; but this would not be the case in general fevers, and therefore more nurses would not be required in small-pox than in fever. He would not speak positively of relapsing fever, for he had had no experience of that. He had repeatedly told the Assistant Medical Officers that it was their duty to see that the supplies of milk and other nutrition were served out judiciously by the nurses, and to report any who did not; but, as a fact, they never did report one nurse. He did not complain of the orders, as orders, which the Assistant Medical Officers gave for irregular supplies in consequence of the injudicious serving out of supplies, but he had spoken to them about the irregular manner in which these orders were given, and of the inconvenience caused by their sending orders up to a late hour at night. He had told Mr. Kynaston that he would not alter the dietary, for that officer advanced no reasons for altering it. The nurses in the earlier time frequently came for additional supplies of milk, and even when the dietary was altered, but he could not say whether the Assistant Medical Officers sent them or not. The whole of the dietary was in his hands, and he kept it, so as to know what was going on in the Hospital, and when any application was made to him he attended to it, and he never refused any application for food. He never had reported to him, and he never knew, that the beef served to the children for a whole fortnight had been very hard and black, as spoken to by the child Cripps. He was often in the children's wards at dinner-time, and he never saw such beef. He altered the dietary of the children's wards (in regard to giving stew for meat) on Sister Agnes asking him. In small-pox cases the sheets would be stained two minutes after being put on the bed. As a fact, he never told the

Medical officers not to complain respecting the diets, and that the nurses were to do so instead; and the fact that the Assistant Medical Officers did make references to the diets on the back of their daily reports proved the contrary. He had told them that the nurses were to report anything regarding the administration of the wards direct to him, and that it was not part of the Medical Assistant's prescribed duty to report otherwise than on direct Medical matters. If anything wrong had come under the Assistant Medical Officers' attention regarding the wards, and they had reported it before the nurse, he should have reprimanded the nurse for not reporting. Mr. Kynaston reported about some bed-cords breaking, and witness told him that the nurse had already reported it; but witness never said, "It don't matter to you if the patients die upon the floor—it's out of your province," It was not at all unlikely that he said, "Kynaston, you would not have been responsible for such a thing," although of course it was expected that an Assistant Medical Officer would mention anything he saw wrong. The Assistant Medical Officers had no responsibility in the administration of the Hospital. The written reports of the Assistant Officers were kept in his office, which was used as the committee-room. These reports were never officially placed on the committee-table, and he never more than incidentally mentioned the existence of these reports. These were made up and sent in to him for his own information, and he used these reports for making up his statistical papers of the Hospital. He never brought the reports to the Committee until after the letter appeared in the *Times*. He never told the Assistant Officers that the Committee did not see their reports, or that it was no use to go to the Committee. On some matters, in regard to private complaints of their own, he told the Assistant Medical Officers to go to the Committee; but on others he told them that it would be of no use their going to the Committee with opinions without facts. The rule regarding the initialing of "extras" was objected to by Mr. Aikman, who resigned, as he considered this an insult, and he withdrew the resignation when witness pointed out to him that this applied to all "extras." The rule was not modified to suit Mr. Aikman. An egg was an "extra," and eggs stood in the same category as champagne and chickens, and freedom to order one would have included freedom to order the others, or anything else. He had a good opinion of Mr. Aikman's abilities, and he had not found fault with that gentleman's conduct while in the Hospital. But, though he had confidence in Mr. Aikman's abilities, and no reason to find fault with him, he did not make any difference between him and the others in regard to this matter.

The witness was then cross-examined in respect to the child Stokes, and he said that when he had his attention called to the child he looked at her, and approved the treatment, but he did not take the case out of the hands of the Medical attendant, Mr. Aikman. The witness was taken over the points of evidence in the case, and he said he had a case now lying in the Hospital nearly as severe as that of the child Stokes, and she was recovering. When he was taken to see the child he did not supersede Mr. Aikman, but he approved the treatment. He held that from the time he saw the child her treatment was proper. He was taken over other matters at some length, and the Court was then adjourned.

Thirty-first Day.

The cross-examination of Dr. Grieve was continued. He was taken in detail over many matters, and he said he did not reserve any cases in the wards for special treatment by himself. He relied upon Mr. Kynaston in the wards under that gentleman, and as to his opinion of Mr. Kynaston, he would say he believed that gentleman did the best he could; but witness differed from him at times as to the Medical treatment he pursued in cases.

Regarding the "statement" signed by the nurses, he stated that this was only a paper of questions asked and answered.

Questioned by Dr. Buchanan, the witness said an order for a poultice was not entered on the bed-card of a patient. A case-book was kept in the Hospital at first, but it was given up after a time. In his opinion, an order of such a thing as white precipitate should have been entered on a card, but he did not think stavesacre or carbolised oil was entered on a card. It was certainly advisable that all medicinal treatment should be recorded, but he never called the attention of the junior Medical officers to the necessity of this. Verbal orders regarding applications to the head were, the witness thought, carried out; but a Medical officer should see the patient on whom it was proposed to apply such things. In the case of the child in whose sore head the maggots were found, he thought the Assistant Medical Officer (Mr. Aikman) was responsible, and he was not exculpated from his responsibility by his having given general orders that the heads should be kept moistened with carbolic acid. There was no pressure upon the nurses at that time, and it was not their place to see to such things. When he saw the case he asked Mr. Aikman how he had allowed the head to come to that state. Mr. Aikman made some excuse, but he made no complaint regarding the nurses.

By Mr. Williams: He never gave the young men to understand that they were not responsible for the well-being of the patients committed to their charge, nor said anything to them which could be tortured into that. He had always told them that if they saw anything which was in the least way detrimental to the Hospital, they were to speak to him as gentlemen. The Assistant Medical Officers had sole Medical charge of the wards handed over to them, and it was their duty to call witness into consultation in any peculiar case; but it would not have been his duty to interfere in that particular case after the consultation without the knowledge of the Assistant Medical Officer. The first persons who should have seen the patients when admitted to the Hospital were the Assistant Medical Officers, and in so dangerous a disease as small-pox it was a gross breach of duty for them not to have seen the patients, and he implicitly trusted to them to discharge this duty. He had no means of knowing that the patients were not Medically inspected unless the fact had been reported to him; and when these gentlemen knew, as they must have known, that patients were admitted without being Medically inspected, it was their duty to report to him. It was the duty of the Assistant Medical Officers to see bedsores dressed, and of the nurses, superintended by the Medical man, to dress them. In some cases bedsores would arise, and he would not take a bedsore as an evidence of neglect; it was not a fact that Ward No. 9 was without a night nurse for a fortnight. His work in the Hospital varied in the amount of time it took. At first he worked from twelve to sixteen hours a day, and the minimum of the work up to August would be ten hours a day. If it had been brought to his attention that meat was unfit to eat he should have reprimanded the steward and reported him. The number of nurses at Hampstead had not been decreased since September, and there was good reason for not decreasing the number, for small-pox was again on the increase, and on the previous day thirty patients were admitted. The witness was taken over many points, and in the course of a very long and exhaustive cross-questioning gave his version of facts dealt with by others. He wished it to be explained in regard to a mistake as to his position in Germany, that he was attached to the Orangeries Hospital at Darmstadt, and not to the Hospital under Dr. Mayo.

Dr. Bridges and Dr. Radcliffe, Medical Inspectors of the Local Government Board, each of whom had visited the Hospital on six occasions, deposed to having found things in excellent condition in the Hospital. Dr. Radcliffe said at no time when he made these visits was he expected or his coming known. He visited the wards five times, and he thought the condition of every patient excellent. What he saw at Hampstead he saw with unmixed admiration and astonishment altogether; and in this he spoke of the state of the wards, the state of the patients, the state of the linen and beds, as far as he saw, and the state of the officers, and he could appreciate the difficulties the Managers had to deal with in the unprecedented features of this epidemic. He had not been questioned as to his views before coming here, and, in fact, he could not communicate with anyone regarding his views.

Mr. Ernest Hart, Deputy Inspector Gordon, C.B., Dr. John Murray, and Dr. Perry, of the Fusilier Guards, deposed to having visited the Hospital at various times, and having found things clean and in excellent order. Dr. Gordon said that, having visited the Hospital on his return from Paris, he found it "a picture of completeness and efficiency." Wards, linen, and patients were very clean.

The inquiry was then adjourned.

More Baby-farming.—A woman named Murrant, 49 years of age, was charged on Monday, at the Lambeth Police-court, with having caused the death of an infant 5 weeks old. The deceased was the illegitimate child of a young woman who had entrusted it to the care of the prisoner, but it was weak and sickly from its birth, and when it died the body weighed only 3½ lbs. As there was no proof of neglect on the prisoner's part, she was discharged.

REVIEWS.

Pulmonary Consumption: its Nature, Varieties, and Treatment. With an Analysis of One Thousand Cases to exemplify its Duration. By C. J. B. Williams, M.D., F.R.S., and Charles Theodore Williams, M.A., M.D. Longmans. 1871. Pp. 402.

It will be universally acknowledged that the claims of Dr. C. J. B. Williams to be heard on the subject of pulmonary consumption are of no ordinary character. Himself one of the pioneers—or, at least, in this country, one of the earliest promulgators and cultivators of the science of physical diagnosis, as learned from auscultation and percussion—he has lived to see a practical knowledge of disease of the chest perhaps more thoroughly and extensively possessed by the Practitioners of the Healing Art than a knowledge of the diseases of any other region of the body. That the earlier writings of Dr. Williams contributed in a large degree to the extension of the study of chest disease, will be readily allowed by all who have any acquaintance with the history of our Medical literature. But it is not only as a writer on the diagnosis and clinical history of diseases of the thoracic viscera that Dr. Williams has a claim on the present generation, but also as an original worker in the field of microscopic pathology. The germs of many of the modern discoveries in tissue pathology will be found in the "Principles of Medicine," and Dr. Williams's early views on the subject of tubercle, although confessedly imperfect, were clearly in advance of the time at which they were enunciated.

Very few living Physicians could offer an *apologia* for a book on disease such as that to be found at pp. vi. and vii. of the Preface to the volume before us, with the same truth and good taste with which it falls from the pen of Dr. Williams. He there recounts that during a period of nearly fifty years pulmonary consumption has been one of the objects of his most constant study; that he learned what Alison, Laennec, Andral, and Chomel had to teach from the men themselves at the bedside and in the dead-house; that for the following twenty years the knowledge thus obtained was applied and extended in the wards and at the post-mortem tables of St. George's and University College Hospitals; and that during the last forty years he has had an amount of experience in diseases of the chest in private practice which has probably not been exceeded by that of any other Physician. Such a career entitles a man to arrange and offer to the world the results of his life's labour.

As we cannot hope to epitomise any considerable portion of Dr. Williams's book in the small space at our disposal, we extract the summary of his views on the pathology of phthisis contained in his preface:—

"It is not possible to convey in a few words the views on the nature of phthisis to which I have been led by observation on the facts and opinions of others as well as my own; but the popular terms *decline* and *consumption* are the most significant which I can employ to represent them. I believe pulmonary consumption to arise from a decline or deficiency of vitality in the natural *bioplasm* or *germinal matter;* and this deficiency manifests its effects not only in a general wasting or atrophy of the whole body, but also in a peculiar degradation, chiefly in the lungs and lymphatic system, of portions of this bioplasm into a sluggish, low-lived, yet proliferating, matter, which, instead of maintaining the nutrition and integrity of the tissues (which is the natural office of the bioplasm), clogs them and irritates them with a substance which is more or less prone to decay, and eventually involves them also in its own disintegration and destruction. This degraded bioplasm, which I will call *phthinoplasm* (wasting or decaying forming material), may be thrown out locally as a result of inflammation; or it may arise more spontaneously in divers points of the bioplasm in its ordinary receptacles, the lymphatic glandular system; and then it commonly appears in the form of miliary tubercles, scattered through the adenoid tissue of the lungs.

"I would characterise all consumptive diseases heretofore classed under the terms tuberculous and scrofulous, together with the products of low and chronic inflammation, as instances of a *lowered vitality of the bioplasm;* and I would strongly insist on their being totally distinct, on the one hand, from cancer and other malignant diseases, the characteristic of which is a new *kind* of vitality, a new growth, perhaps parasitic, with new organic elements, foreign to those of the tissues which they invade and destroy; and, on the other hand, distinct also from *total loss of vitality*, death of the bioplasm, which would speedily result in decomposition, gangrene, and putrefaction; to such a result phthinoplasms do occasionally lead, but it is not a part of their common history. That this latter distinction is not sufficiently observed by some German writers is evident by their applying the term *necrobiosis* to cascation, which, although a process of decay from *lowered* vitality, does not indicate the absolute death of every living part, as in a slough or gangrene. It will be seen in the chapter on fatty degeneration (which thirty years ago was a special object of my study), that I have traced a resemblance to vegetable life in its process and products; and, although ultimately destructive, it is the most gentle step towards the death of the tissues. Nay, various proofs will be adduced that fatty transformation is often a salutary process, assisting materially in the removal of phthinoplasms and other superfluous products of inflammation."—*Preface*, pp. vii.-ix.

This being the author's general conclusion as to the nature of the disease of which he treats, we may proceed to notice a few of the points to which he gives prominence. But, before doing so, we hope we shall not be esteemed hypercritical if we remark that, in any author except Dr. Williams, we should object to the coinage of the new word "phthinoplasms." Pathological science is surely loaded with enough terms already, and we are not clear as to there being any essential difference between the phthinoplasms of to-day and the cacoplastic deposits of five-and-twenty years ago.

Dr. Williams has fully vindicated his own claim and the claim of other British pathologists to the merit of opposing Laennec's exclusive views of the pathology of consumption. He shows that, long before the school of Niemeyer, the inflammatory origin of phthisis was maintained by Alison, Abercrombie, Stokes, and himself in opposition to the views of Laennec and Louis. The chapter (the second in the book) in which this question is discussed, completely disposes of the assertion that Laennec's views were only called in question by Dr. T. Addison in this country until an opposition was raised to them by German pathologists.

Dr. Williams, in the outset of his examination of the intimate nature of tubercle, pays a deserved tribute to the researches of Mr. Gulliver on tubercle, which were published between 1842 and 1844. He then proceeds to show in what respect he differs from the views of Virchow, who described miliary tubercle as a heteroplastic lymphoma, a new growth of lymphatic tissue where none exists naturally, having its origin in the cells of connective tissue only. He does not allow that tubercle is a new growth in the sense that cancer is a new growth. He rather accepts Dr. Sanderson's view, that miliary tubercle in the lung is an overgrowth of pre-existing adenoid tissue. But although he thinks that Dr. Sanderson has proved that miliary tubercles are modifications of the adenoid tissue, he does not admit that any and every inflammation or overgrowth of the adenoid tissue will produce miliary tubercle; nor does he admit that adenoid tissue is essential to the production of other phthisical consolidations, especially of what is called yellow tubercle, either crude or caseous.

The Relations of Inflammation to Tubercle and other Phthinoplasms is the title of the chapter in which Dr. Williams enunciates his view of the part played by leucocytes in the production of lymph, pus, and tubercle. This subject is of so great interest at the present time that we offer no apology for quoting Dr. Williams's views *in extenso*:—

"It is the scrofulous inflammation of lymphatic glands that makes them enlarge first, and then harden, and at length degenerate into caseous masses, which soften eventually and discharge from scrofulous sores. It is a similar type of inflammation which may develope miliary induration in the adenoid tissue of the lungs, tending in like manner to cascation, softening, and spreading, and to the formation of vomicæ. In both cases the death and destruction of the tissue are preceded by induration, and the microscope reveals the nature of this induration in the abundant production of cells which change their colour from red to grey, and eventually so press on each other and on their containing fibrous stroma as to choke their nutrition; and they then become cheesy—that is, undergo fatty degeneration and disintegration. It is, therefore, not the mere inflammation or simple growth of the adenoid tissue that constitutes the destructive changes of scrofula and tubercle, but the excessive multiplication of perishable cells doomed to speedy decay. These cells have the closest resemblance to *leucocytes*, the ordinary corpuscles found in lymph, and circulating also in considerable numbers in the blood; and there are good grounds for concluding that these all are identical in nature. The strong probability is therefore in favour of the opinion which I have entertained, and in general terms expressed during the last forty years, that variations in the plasma,

as represented by these bodies, constitute the essential element in the production of lymph, pus, and tubercle.

"The coagulable lymph, composing the plastic exudations from inflamed serous membranes, contains more or less of these corpuscles or leucocytes, their greater abundance causing a more opaque appearance and a lower capacity for organisation in the inflammatory product, and constituting the kind of lymph termed *corpuscular* by Paget, *croupous* by Rokitansky, and by myself *cacoplastic* and *aplastic*, having the further varieties purulent and tubercular."

It is well known that Dr. Williams was one of the first to observe the great increase of white corpuscles, which he termed sarcophytes, in the blood-vessels of the frog's foot on irritation, and that he was the first to notice their adhesive qualities—their sticking to the walls of the vessels. He also saw the accumulation of these corpuscles outside the vessels of the inflamed tissue. His observations, however, did not go so far as to enable him to assert that the pale corpuscles passed through the coats of the capillary vessels, although he suggested that small nuclei or granules might so pass and then grow larger. The fact of emigration was first described by W. Addison, and soon after by Waller. Later it has been rediscovered by Cohnheim; but Dr. Williams, although he himself did not see the actual process, early adopted the emigration theory: that the more distinctive products of the inflammatory process—lymph, pus, and tubercle—and albuminous and fibrinous matters in other varieties of form, are truly *exudations* from the inflamed bloodvessels; and it was in accordance with this view that he classed the products of inflammation as deposits.

We cannot, however, linger over Dr. Williams's most interesting, original, and instructive chapters on the Pathology of Tubercle. In his work he has references to the latest researches of the chief workers of the day. An examination of these proves unmistakably the remarkable confirmation and expansion given by recent observations to views which he was in the habit of propounding to his class at University College twenty-five years ago.

We have left ourselves but little room to notice the remainder of the work. The chapter on Physical Signs is remarkable for its clearness and simplicity. Dr. Williams's Record of a Thousand Cases proves convincingly that the ordinary form of phthisis, under favourable circumstances, is a very slow disease. His results are more favourable than those of any previous author; but probably there is no malady the treatment of which has been so much improved within the last twenty years as pulmonary consumption. To ourselves, Dr. Williams's chapters on Treatment are amongst the most valuable and attractive in the book, and would alone render it a standard work of reference.

Dr. Theodore Williams has contributed the statistical parts of the work, on which much labour has evidently been spent. The chapters on Family Predisposition, on Hæmoptysis, on Dietetic and Hygienic Treatment, and on Climate, are also by him. We can scarcely give them higher praise than when we say they are worthy to be placed side by side with the chapters contributed by his father. If we wished to find fault we might observe that the book deserves a better index; but this is a failing which must be mended in another edition.

In conclusion, we would record our opinion that Dr. Williams's great reputation is fully maintained by this book. It is undoubtedly one of the most valuable works in the language upon any special disease.

NEW BOOKS, WITH SHORT CRITIQUES.

Cholera as Treated in the Royal Free Hospital. By William Marsden, M.D. Fourth edition. Edited by Alexander Marsden, M.D., F.R.C.S.E., Surgeon to the Royal Free Hospital and Cancer Hospital. London: Wyman and Sons, Great Queen-street, Lincoln's-inn-fields, W.C. 1871. Pp. 73.

*** We cannot say that the small book above named contains anything which at the present day can be considered of interest or value to the Profession. It contains, on the other hand, ideas concerning cholera—such as that it is neither infectious nor contagious; that nothing can be more unnecessary than quarantine; that, in the premonitory diarrhœa, calomel cannot be administered too boldly, inasmuch as small doses produce no effect, while a full dose acts almost like magic, and the happiest results ensue—which, however justifiable they may have been thirty-seven years ago, when the original edition was issued by its author, being now repeated without explanation or qualification, are likely to misinform the non-Professional public, to whom the book bears the appearance of being more particularly addressed. We would also observe that the treatment of cholera by salines and saline injections into the veins, as originally suggested by Dr. Stevens—though frequently tried, and occasionally with such favourable results as may render the repetition of the experiment with such modifications as the progress of our knowledge in the pathology of the disease may suggest not only justifiable, but advisable—has not, in the experience of other observers, attained such a remarkable standard of success as to justify nowadays the republication of the confident opinion expressed by Dr. William Marsden in 1834: that we have in this method of treatment such a successful means of combating cholera "that we need no longer view with horror and dismay the approach of this enemy to human existence."

The Nature and Prevention of Cholera. Hamilton. W. Naismith. 1871.

*** This is an anonymous pamphlet, in which the discovery is announced that the nidus of cholera is anæmia, and the remedy and means of prevention iron. The author is evidently an enthusiast, prone to jump at conclusions, and we notice his pamphlet merely to advise him of the necessity of establishing a foundation of facts before raising a superstructure of theory. We do not believe that anæmia has *per se* any influence in inducing an attack of cholera, any more than that its opposite condition, plethora—the yet unrecognised factors of the disease being in operation—will succeed in warding it off.

PROVINCIAL CORRESPONDENCE.

SCOTLAND.

Edinburgh, October 30.

On ever-shifting ground, and with fluctuating success, the female Medical movement still continues. Its amazon champions seemed at first to carry everything before them; but more recently they have met with considerable check. A year ago it was found that no University teachers were forthcoming to instruct them, and an effort which was then made by them to gain admission into the ordinary classes of the University along with the male students was effectually resisted.

The Royal College of Surgeons Medical School then came to the rescue, and permission to have mixed classes was granted to any of its lecturers who liked such an arrangement.

One session of this experiment sufficed. In a year when an almost unprecedented number of students entered the Edinburgh Medical Schools, there was a marked falling off in the number of students in every class into which the mixed element was introduced. Consequently, at a meeting of the lecturers, held last summer, it was resolved that this permission should be withdrawn.

An application was made last year by the females for admission to the wards and clinical instruction of the Royal Infirmary. This was opposed by the managers, who refused to recognise the right of these women to enter the institution as students. Their decision was approved of by the Court of Contributors to the Infirmary, and their example has since been followed by the managers of Leith Hospital, the Royal Hospital for Sick Children, Chalmers' Hospital, and the Maternity Hospital. In this awkward position of affairs, the University authorities, who bore the responsibility of having been the first to recognise them as students, had now the prospect of being applied to by some of their number for admission to the first Professional examination.

They now began to question the legality of their position, and determined to seek the advice of counsel on the matter. The subject was presented to most eminent counsel in the form of a memorial, drawn up by the law agent of the University, advised by the deans of the Faculties of Law and Medicine. Great care was taken that the case should be fairly and accurately stated. They obtained the following opinion in reply:—

"It may be that the Senatus or other authorities can give permission to the Professors of the University to teach persons not legally entitled to demand admission as students; but we do not think that persons who have attended lectures by virtue of such permission have, even when permitted to matriculate, any right to claim the position or privileges of students. We are of opinion that the Senatus have not power to admit to examination for a degree persons who, though they may have

attended the course of lectures necessary to graduation, were not, in our estimation, entitled to the legal status of students of the University."

It will be apparent that this must have been news of a rather startling kind to the University authorities, when we bear in mind that there stand, and for two years have stood, in the Calendar of the University, the following regulations :—

"1. Women shall be admitted to the study of Medicine in the University.

"2. The instruction of women for the Profession of Medicine shall be conducted in separate classes confined entirely to women.

"3. The Professors of the Faculty of Medicine shall, for this purpose, be permitted to have separate classes for women.

"4. Women not intending to study Medicine professionally, may be admitted to such of these classes, or to such part of the courses of instruction given in such classes, as the University Court may from time to time think fit and approve.

"5. The fee for the full course of instruction in such classes shall be four guineas; but in the event of the number of students proposing to attend any such class being too small to provide a reasonable remuneration at that rate, it shall be in the power of the Professor to make arrangements for a higher fee, subject to the usual sanction of the University Court.

"6. All women attending such classes shall be subject to all the regulations, now or at any future time in force in the University, as to the matriculation of students, their attendance on classes, examination, or otherwise.

"7. The above regulations shall take effect as from the commencement of session 1869-70."

The responsible authorities were thus placed in the awkward dilemma of having made laws which it was, apparently, illegal for them to carry out.

They might still, however, have revoked those laws, and have had them removed from the official Calendar. But in reality nothing further was done, until in the present month applications were made by female students for admission to the preliminary and first Professional examinations. In both instances the *Medical Faculty* refused to admit them, and thereby broke one of their laws. In both cases the ladies now, in their turn, sought legal advice, and received in reply a decided opinion to the effect that the course of action taken by the Medical Faculty was illegal.

The Medical Faculty, thus jammed between two opinions of eminent counsel—one implying that they had no legal right to frame the laws which they had framed; the other, that, having made such laws and published them in the Calendar, they had no legal right to break them—withdrew their prohibition, and allowed the ladies to appear for examination.

It is difficult to understand how the Medical Faculty, Senatus, and University Court, with the approval of the Chancellor and University Council, should have framed, and for two years acted upon, laws which, in the end, turn out to be either illegal or of doubtful legality. It is equally difficult to understand why, after the discovery was made, the matter was not at once rectified. The Medical Faculty might thus have been saved the humiliation of first attempting to break laws which they had themselves made, and of being summarily forced by a legal opinion into compliance with them.

It is to be hoped that the University authorities have had enough of this female innovation, and that means will be taken to put an end to a state of matters which is doing incalculable damage to the good name and fame of the Edinburgh University.

Taking advantage of the evident difficulty in which the University authorities had placed themselves, an attempt was made, at the meeting of the General Council on Friday last, to get up a reaction in favour of the female students.

Dr. Alexander Wood moved the following resolution :—"That, in the opinion of this Council, the University authorities have, by published resolutions, induced women to commence the study of Medicine at the University; that these women, having prosecuted their studies to a certain length, are prevented from completing them from want of adequate provision being made for their instruction: that this Council, without again pronouncing any opinion on the advisability of women studying Medicine, do represent to the University Court that, after what the Senatus and Court have already done, they are at least bound in honour and justice to render it possible for those women who have already commenced their studies to complete them."

Mr. Alexander Nicholson (Advocate) seconded the motion.

Professor Turner moved the following amendment :—"The subject to which the motion of Dr. Alexander Wood refers being at present duly under consideration by the proper authorities of the University, the General Council decline to interfere in the matter at present, being confident that the cases of the several ladies who have commenced their Medical education will be considered with all favour compatible with the Universities Act, the University Statutes, and the University Charter."

Professor Wyville Thomson seconded the amendment. For the motion 97 voted; while 107 voted for the amendment, which was therefore carried.

The decision of the University Court is looked forward to with interest and anxiety. It is to be hoped that the follies and blunders of the past will be neither perpetuated nor added to, and that the experience which teaches even fools will not be lost upon so august a body. Many experiments, which are daily carried on within the buildings of the University, are difficult and dangerous to the experimenter. But this is a more serious affair—this difficult experiment of female Doctor-making, which the University authorities have been making—it is dangerous to the very University itself.

October 31.—Since writing the above I find in the *Scotsman* of to-day that a meeting of the Senatus was held yesterday, and that they "declined by a majority to recommend to the University Court any means by which the ladies might be enabled to complete their education."

It is not unimportant that this decision was arrived at in the face of the following letter which was laid before the meeting :—

"Craighouse, Lothian Burn,
"Friday, October 27, 1871.

"Sir,—In the absence of the Hon. Secretary, I am desired by the Executive Committee for Securing a Complete Medical Education to Women in Edinburgh to inform you that they have passed the following resolution, in the hope that the removal at least of all pecuniary difficulties may facilitate the arrangements of the Senatus for completing the Medical education of those ladies who have already matriculated in the University :—'That the Secretary be instructed to write to the Senatus, in view of their approaching meeting, to state that, in the event of special lecturers being appointed by the University to give qualifying instruction to women, the Committee are willing to guarantee the payment to them of any sum that may be fixed by the Senatus for their remuneration, in case the fees of the ladies are insufficient for that purpose, and that, if necessary, they are willing further to undertake to provide such rooms and accommodation as may be required for the delivery of the said lectures, if it should be found absolutely impossible for the University to provide space for that purpose.'

"I am, &c., Katherine Burton.

"To the Secretary of the Senatus Academicus."

Surely this indicates a great change in the views of the Senatus since 1869! Let us hope that we see the beginning of the end.

GENERAL CORRESPONDENCE.

THE QUEEN'S ILLNESS.

Letter from Sir William Jenner.

[To the Editor of the Medical Times and Gazette.]

Sir,—A statement having been widely circulated to the effect that the Queen's recent illness was the result of revaccination, I trust you will, by inserting this letter, permit me to give the most unqualified contradiction to the report. There is not a shadow of foundation for it in facts. Her Majesty's recent illness did not commence till many months after the revaccination. There was no connexion, direct or indirect, between the two.

I am, &c.,

October 31. William Jenner, M.D.

P.S.—I should not have contradicted a statement so entirely without foundation had I not heard that, in consequence of the positive terms in which the assertion is made, it is receiving a certain amount of credence, and is so causing harm to the public health.

CROTON-CHLORAL.

Letter from Dr. Julius Althaus.

[To the Editor of the Medical Times and Gazette.]

Sir,—I think it will be interesting to the readers of your journal to hear that Dr. Oscar Liebreich, of Berlin, to whom

we owe that valuable therapeutic agent, hydrate of chloral, has lately been engaged in investigating the physiological and therapeutical properties of a new organic compound called croton-chloral, which is formed by conducting chlorine gas into allylene. A peculiar action of this new substance in animals is, that at first a high degree of anæsthesia in the head is produced, while sensibility in the other parts of the body remains intact. The second stage is, that the spinal cord loses its function, and reflex excitability is everywhere extinguished. During that stage both pulse and respiration remain unchanged. The third stage, which is induced by large doses, is characterised by paralysis of the medulla oblongata, and death. Animals may, however, be kept alive by artificial respiration, because the function of the heart is not interfered with; while the ultimate effect of hydrate of chloral is to paralyse the heart. The first therapeutical experiments with the new compound were made in the University Clinique of Berlin. Complete anæsthesia of the fifth pair of cerebral nerves was produced in a child, reflex excitability in the other parts of the body continuing unchanged at the same time. Pulse and respiration remained exactly the same during the whole time of the narcosis. Further experiments in insane patients showed that we possess in croton-chloral a remedy by means of which the brain may be profoundly narcotised without any other functions being disturbed, while by chloral not only the brain, but the nervous system altogether, is rendered anæsthetic, and the heart's action is diminished, which must always constitute a source of danger. Croton-chloral, therefore, premises to produce all the good effects of hydrate of chloral without any drawback being attached to its judicious use. Its apparently specific effects on the fifth pair of cerebral nerves makes us indulge the hope that it may perhaps be found useful in that most intractable affection—true tic douloureux, or epileptiform neuralgia of the face.

I am, &c., JULIUS ALTHAUS, M.D.

18, Bryanston-street, Portman-square, W., Oct. 31.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

TUESDAY, OCTOBER 17.

T. HOLMES, F.R.S., Vice-President, in the Chair.

THE Chairman, in presenting to the Society the new volume of *Transactions*, remarked that, if not quite so large as some previous volumes, it was equally valuable. For that evening the list was not large—but that, perhaps, was an advantage, as it allowed of fuller discussion. Too frequently there was an excess of specimens.

Dr. PEACOCK related a case of Extensive Disease of the Heart of very long duration: Obstructive and Regurgitant Disease of the Mitral Valves, and Obstructive Disease of the Aortic Valves, in a patient, aged 17 (a baker), who was admitted into the Victoria-park Hospital under his (Dr. Peacock's) care on April 15, 1871, and died on August 6. The patient stated that he had had an attack of rheumatic fever when 4 years old, and four or five attacks since. He had also suffered three times from chorea. He had never been free from cardiac symptoms during his recollection, but he had suffered more severely within the last few months. When admitted, he complained of shortness of breath, palpitation, and cough with expectoration; he was very livid in the face and extremities, and the fingers were clubbed, and the face and lips were puffy. The pulse was small and irregular. The præcordial dulness on percussion was much increased in extent, both vertically and longitudinally. There was a loud, soft systolic murmur, heard most distinctly at the nipple and lower end of the sternum, but audible also over a large space at the base, at the apex towards the left axilla, and feebly at the lower angle of the left scapula. The second sound was at first scarcely to be heard, but subsequently the sound became intensified. The murmur was distinctly heard in the course of the pulmonary artery, as well as in that of the aorta. Soon after his admission, he had an attack of urgent difficulty of breathing, with syncope, and stated that he had had similar attacks before his admission. He also became exceedingly livid and very sallow, and had spitting of blood, and the œdema increased. The liver became engorged, and the urine was loaded with lithates, but free from albumen. He also had, some time before his death, several convulsive fits, and was afterwards very morose and torpid. On examination after death, the pericardium was found entirely adherent to the heart by old and firm attachments. The heart was greatly increased in size, weighing, with some of the pericardium attached, 17½ ounces—or probably 16 ounces independently. The left auriculo-ventricular aperture was very greatly contracted, giving passage only to a ball measuring 21 French lines in circumference, and the valves were greatly thickened, indurated, and cretacified, the aperture being permanently open. The aortic valves, also, were thickened, and the orifice at its outlet greatly contracted, giving passage to a ball of 33 French lines in circumference. The lining membrane of the left auricle was very thick and rough, and the cavity, together with that of the right side, much dilated. The tricuspid valves were somewhat thick. The aperture admitted a ball 54 French lines in circumference, the pulmonic aperture one of 45 lines. The other organs of the body, although very much engorged, were not otherwise diseased. There could be no doubt, from the long duration of the symptoms, and the condition of the heart, that the boy had been the subject of cardiac disease since his attack of rheumatism, when 4 years of age, and it was, indeed, during life, doubted whether the disease might not be congenital.

Dr. GREEN exhibited a specimen of Interstitial Hepatitis. The liver was removed from a boy aged 9, who was admitted into Charing-cross Hospital under Dr. Green's care in July last, and died after eight days' stay in the Hospital. He was delirious, intensely jaundiced, and his stools contained no bile. The liver was slightly diminished in size, and the interlobular tissue was infiltrated with leucocytes, which in many places almost completely replaced the proper liver tissue. The hepatic cells were but little altered. Two enlarged lymphatic glands were found lying over and obstructing the common bile-duct. The stomach and intestines contained a large quantity of dark blood. The case was interesting, from the acuteness of the inflammatory process, the accidental occurrence of jaundice, and the complete absence of any pyrexia during life.

Dr. MURCHISON presumed the jaundice was due to the enlarged glands; were it not for that, the diagnosis might have been difficult. The temperature was of great importance in acute atrophy of the liver. In some forms of disease resembling it the temperature was remarkably high; in it, it was not much above the normal standard.

Mr. HOLMES asked if it was not unusual to have inflammation of such an organ as the liver without rise of temperature.

Dr. GREEN considered that the important point in the case.

In reply to Dr. Baümler, he stated that the liver-cells were unaltered; the bodies observed were merely leucocytes.

Dr. MURCHISON exhibited specimens of Hydatids removed from the peritoneum during life by Mr. Spencer Wells. The patient was aged 29, and came into Middlesex Hospital last December. She complained merely of the size of her abdomen, which presented nodulous projections, soft, elastic, and of various sizes. There was no tenderness. She did not long remain in the Hospital; but afterwards she came under the care of Mr. Wells, who punctured the abdomen, confirmed the diagnosis, extended the opening, and removed three or four pounds of hydatids. The patient was quite comfortable in a few days, and, as far as he knew, was now alive. She had, first of all, on the beginning of the attack, eleven years ago, something like local peritonitis, and, subsequently, repeated attacks of the same. She had borne healthy children during this illness. A somewhat similar case, in the person of a man, aged 45, had been also under his care. The history was similar. They appeared to begin from the liver. He had tapped one, and taken away hydatid fluid. Nothing was done for permanent relief.

Mr. HOLMES considered this the first removal after a diagnosis.

Dr. WILKS had seen them removed by Mr. Bryant, but he could not say whether a diagnosis had been made. Was the origin of these from the peritoneum or liver?

Dr. MURCHISON said Mr. Wells had not attempted to remove all, and he did not know if any recurrence had taken place. The origin was not clear in the first case, but it was probably the liver; there was little doubt of this in the man.

In reply to Dr. Church, Dr. MURCHISON also said that the cysts had not been examined for echinococci, but the fluid was undoubtedly hydatid.

Mr. HULKE said they were not uncommon in pigs. In one instance, besides peritoneal hydatids he had found a large withered cyst in the liver.

Dr. MOXON had not long ago seen a case of spinal hydatids. There was nothing in the liver. He asked if the parent cyst was represented by the pushed-out wall.

Dr. PHILLIPS remembered the case referred to by Dr. Wilks. It greatly resembled the one first narrated by Dr. Murchison,

and had lasted many years. It was determined to make an exploratory incision with a view to certainty of diagnosis. A quantity was removed, and the patient did well. He thought they were scooped out of the interior of a large cyst.

Mr. Holmes said the peculiarity in this instance was, that the operation had been undertaken after the diagnosis was made.

Dr. Robinson exhibited the Throat and Larynx of a Soldier who had expired very suddenly after slight illness. He was aged 21, and had been complaining of sorethroat. His tonsils were large, but not very. On the second evening he was better at the visit; but two hours after, almost immediately after swallowing a chloral draught, he died. There was a good deal of swelling about the glottis, but nothing else was remarkable.

Dr. Murchison thought the mode of death was rather by syncope than asphyxia. Was the head affected?

Dr. Robinson said the heart was rather loaded with fat; that was all. He did not think the draught had anything to do with the death.

Dr. Payne exhibited Microscopic Specimens of an Enlarged Lymphatic Gland from a case of lymphadenoma, or Hodgkin's disease, the particulars of which had been communicated by Mr. Squire. Clinically, the case was remarkable for exhibiting, in addition to enlargement of lymphatic glands in various parts of the body, consolidation of the lungs, and some symptoms indicating disease of the spinal cord; but as a complete autopsy could not be obtained, these points were not elucidated. Dr. Payne took occasion to make some remarks on the minute anatomy of the diseased glands in such cases, in which he pointed out the frequent occurrence, in early stages, of the large and many-nucleated cells, some resembling myeloid cells, observed by Dr. Ogle and himself.

Dr. Wilks asked if this new formation were destructive. Virchow, he thought, looked upon it as an increase of tissue merely.

Dr. Payne wished to imply that increase came first, destruction after. The cells were smaller latterly.

Dr. Goodfellow exhibited a specimen of Aneurism originating close to the Aortic Valves. The patient, a man aged 48, a porter, was well till April. He then began to experience increased difficulty of breathing, with palpitation. He never felt anything giving way. There was a loud basic bruit, systolic and diastolic, louder on the right side. He had also epistaxis and hæmoptysis. After death the aortic valves were found calcareous, and a dilated pouch just below the valves. The endocardium was healthy, and the mitral valves healthy.

Dr. Murchison had a somewhat similar case, which he had thought was mitral, there being a loud systolic bruit. After death, a pouch the size of a small orange was found projecting from the ventricle just behind the valves.

Dr. Moxon wished to bring before the Society a specimen which he thought showed that after stricture there might be inflammation of the kidney ending in abscess, with ultimate recovery.

Mr. Holmes thought most Surgeons would agree with him in the possibility of such a sequence.

OBSTETRICAL SOCIETY OF LONDON.

Wednesday, October 4.

Dr. Braxton Hicks, F.R.S., President, in the Chair.

John M. Taylor, M.D., Scarborough, was elected a Fellow of the Society.

Dr. Barnes presented to the Society, on behalf of Dr. Boddaert, of Brussels, the lever employed by Dr. Boddaert; also a memoir, "On the Rational Use of Forceps and Lever," by the same gentleman. Dr. Barnes drew attention to the form of the lever, which was a solid bar, nearly straight, and without fenestra. Such a bar could only be a lever, and in no sense a tractor.

Dr. Barnes exhibited a specimen of an Iliac Artery obstructed by a Clot. The case was described by Mr. Williams, of Truro. The subject was seized during an abortion with prostration, coldness, failure of pulsation, and gangrene of the leg of the side on which the artery was plugged.

Mr. Spaull exhibited a Fœtus the subject of Hydrocephalus. The child presented by the breech, and the head had to be perforated.

Mr. Mitchell said he had met with several cases of the kind in his practice. In every case he had perforated the head, and delivered the child by the forceps, all having been head presentations.

Dr. Murray thought that, in such a case as that related to the Society, much diagnostic information could be obtained by placing the hand on the lower part of the abdomen, and feeling the unusally large size of the uterus after the birth of the extremities and body of the child. The possibility of the existence of twins should, however, be remembered; but then the uterus would be still much larger than when distended by the hydrocephalic head.

The President read a paper on the "Intermittent Contractions of the Uterus during Pregnancy: their Physiological Value and Assistance in Diagnosis." He showed, as the result of eight years' constant observation, that the habit of the uterus was to contract at intervals of from five to twenty minutes, and then to relax. These contractions, he said, lasted about three or four minutes, although under circumstances of irritation they might continue longer; and even in diseased states of the ovum were almost continuous. Only one apparent exception had been noticed—namely, in a case of paraplegia, in which the contractions were not observed. They were observable as early as the third month of pregnancy; indeed, as soon as the consistence of the uterus permitted. They were not owing to the irritation of examination, for, as frequently as not, the uterus would be found hard on first handling it, and then shortly to relax. After describing the physical state of the uterus and its contents during these conditions, Dr. Hicks alluded to the value of these contractions physiologically. He thought at least two advantages were derived from them—the one to supplement the heart-impulse in a part remote from its influence, the other to assist the ultimate disposition of the fœtus. He then proceeded to discuss at length the assistance these contractions gave the Practitioner in the diagnosis of extra-uterine from uterine tumours, of uterine tumours from pregnancy, and of extra- from intra-uterine pregnancy.

Dr. Barnes called attention to the work of Dr. Tyler Smith, in which the peristaltic movements of the pregnant uterus were well described, not only as forming the basis of the expelling force during labour, but also as diagnostic of pregnancy.

Dr. Hicks said the extract quoted from Dr. Tyler Smith's work had escaped his notice. But Dr. Tyler Smith had referred to the peristaltic movements the result of external excitation, while those which had been just described occurred without any such.

Dr. Copeman (of Norwich) related three cases which he had met with in practice; the first being one of induction of premature labour on account of excessive vomiting, the second a case of large fibrous polypus of the fundus uteri, and the third a case of *procidentia* uteri in a maiden lady.

The discussion turned on the best mode of inducing premature labour.

Dr. Barnes agreed with Dr. Copeman that the introduction of a bougie or catheter into the uterus was the best mode of provoking labour; but, like all simply provocative means, it could not be depended upon to complete labour. Accelerative means were often necessary. The best of these were—rupture of the membranes, dilatation of the cervix by the water-bags, turning, and the forceps.

Dr. Protheroe Smith referred to an instrument shown him by Dr. Tarnier, of Paris. It consists of a metal grooved director, about eight inches long, carrying a tube of india-rubber, thin at its distal extremity. This is introduced into the uterus, towards the fundus, separating the membranes. It is then distended with water so as to form a bulb-shaped bladder, when the metal director is withdrawn. Uterine action usually sets in within a few hours.

Dr. Playfair generally used a simple catheter, which he passed between the membranes and the uterine wall; but on more than one occasion he had seen it fail. The uterus was occasionally roused into activity with great difficulty, and this probably depended on some peculiarity in the individual case.

Dr. Brunton had induced premature labour successfully nine or ten times by injecting warm water into the uterus. He had, however, now given up that method, both on account of the danger said to attend its use, and because in one case it proved a total failure. He now used a bougie (No. 12) in which no eye had been cut.

Dr. Murray expressed his belief in the value of the plan recommended by Professor Lazarewitch of injecting water into the uterus. He had nothing to say against the use of the catheter, except that it had occasionally failed to bring on labour.

The President said that the safety of the child depended on two conditions—viz., the rapidity with which the uterus came into action, and the freedom with which the child passed

through the os uteri. Dilatation of the cervix certainly answered the latter requirement excellently.

Dr. WILTSHIRE suggested the desirability of inducing premature labour at a period in pregnancy which, in respect of time, corresponded to a menstrual epoch.

Dr. ROGERS had, early in his career, been accustomed to puncture the membranes high up, so as to save some of the liquor amnii, having first dilated the cervix with sponge tents. Of late years he had used a long catheter with an opening at its rounded extremity. This had been successful in all except two cases, and in these he found it necessary to inject some water through the catheter to excite uterine action.

OBITUARY.

THE LATE DR. FAWCUS.

SIR,—An old Indian, who knew Dr. Fawcus intimately, has obliged me with the following note, which I hope you will be good enough to insert. It is partly in correction, partly in addition, to the notice of Dr. Fawcus in your journal of last week.

I am, &c.,

October 30. THE WRITER OF THE NOTICE.

"The foundation of the system of converting the prisons of Lower Bengal into productive schools of industry, of rendering the prisons thereby self-supporting, and of relying upon well-regulated industrial labour as the best means alike of puuishment and reformation, was laid in 1856, immediately after the holding of a successful exhibition of gaol manufactures in Calcutta. In 1861 the gaols of Alipore and Hooghly were entirely self-supporting, and the former has remained so ever since. In 1863 the jute machinery for the Alipore gaol was sent from England. Dr. Fawcus became Superintendent of the Alipore gaol on January 12, 1865. Although, therefore, Dr. Fawcus originated none of the measures on which the existing Bengal system is based, he threw himself heart and soul into the work with an amount of success of which it is impossible to exaggerate the value and importance. Dr. Fawcus was in Medical charge of the Monghyr gaol from November 23, 1863, to December 10, 1864. Prior to his incumbency, the mortality in that gaol was 18·62 per cent. in 1854, and 45·11 per cent. in 1863. He reduced it at once to 4·35 per cent., and it has remained at a low figure ever since. In 1864 the dry-earth system was introduced. Dr. Fawcus was recommended to the Government for a special acknowledgment of his valuable services. In Calcutta he was attached to the General Hospital, in which his zeal, devotion, and success were as marked as they were in the prison department."

JAMES STANLEY CHRISTIAN, L.R.C.P., ETC.,

WAS born at Sligo; studied and obtained his diploma in Dublin, both as Physician and Surgeon, and afterwards in London as M.R.C.S. He practised in the county of Monaghan with success, and became distinguished in management of the Dispensaries, and particularly so in the treatment of cholera and fever, for which, indeed, he acquired great repute. He did not publish any Medical work, and the only occasion on which he sustained his views in print was when Dr. Marshall Hall, some few years ago, advocated certain views of his own, by publishing an attack on the treatment of the drowned pursued by the Royal Humane Society, to which Dr. Christian was Honorary Surgeon. Dr. Christian's views met with much opposition, and were criticised with severity in the pages of a contemporary. Dr. Christian regarded the observations as libellous, and threatened an action against the journal containing them. Dr. Christian came to England upwards of twenty years ago, and, after some time spent in practice in East Kent, settled in South Kensington, where he attained a very large reputation, and enjoyed an extensive practice. He became, as above stated, the Honorary Surgeon to the Royal Humane Society, which, within the last few years, voted him their gold medal for his great and generous service—an honour which, we believe, has not been conferred more than four times since the existence of the Society. He was very popular with the leading members of the Profession, and obtained the personal affection and high regard of his numerous patients, all of whom became his friends. He was only 57 when he died from effusion of blood on the brain. A fortnight ago last Sunday week he was sitting with his brother-in-law in his dining-room, at 7, Prince of Wales-terrace, Kensington, conversing, when suddenly he felt faint, and asked for a little brandy. Before it could be given to him he was struck. Drs. Sieveking, Barclay, and Seton were soon in attendance. The most unremitting and affectionate attentions were unavailing, though for the first three days it was thought that the treatment was producing good results, and a complete cure was anticipated; but he expired on the following Tuesday week.

DR. RICHARD T. EVANSON.

WE regret to have to announce the death of Dr. Richard T. Evanson, which took place at Torquay, on the 26th ult. Dr. Evanson had been in the Profession for upwards of forty years, and had attained to a good old age, being 72 when he died. He was elected a Fellow of the Royal College of Surgeons, Ireland, as far back as 1830, and was for some time Professor of the Practice of Physic in that institution. He graduated M.D. at Glasgow in 1832, and in 1859 was made a Fellow of the Royal College of Physicians, London. Though Dr. Evanson's name was not often mentioned lately apart from his practice at Torquay or in social circles, it was at one time very well known, inasmuch as he, in conjunction with Dr. Maunsell, produced the first really good book on the diseases of children. This, which was termed a treatise "On the Management and Diseases of Children," was really an excellent work on the subject; but for some reason or other a second edition of it never appeared, and it gradually dropped out of date. In private Dr. Evanson was highly esteemed. He was a man of many accomplishments, and was fond of writing poetry. The last volume he published was a collection of poems, the most notable it contained being entitled "Nature and Art: a Reminiscence of the last International Exhibition." At Torquay Dr. Evanson had obtained a goodly share of private practice, and was greatly beloved and respected by his patients.

OSMER KING, F.R.C.S. ENG.

ON October 24, at Walton Villa, Eccleshall, Stafford, died this much-respected and beloved Practitioner, whither he had gone some months before for the benefit of his failing health. Mr. King was the son of the late George King, Esq., of Burgate and Royal, in Surrey, and became a Member of the College of Surgeons in 1839, and an honorary Fellow in 1859. Having commenced practice as the junior partner in the much-respected firm of Sutton and Sanes, of Blackheath, his polished manners and Professional abilities soon became appreciated, and from that time up to the day of his death he carried on one of the largest and most aristocratic practices in the county of Kent. At the beginning of the year 1870 he took as his partner Dr. Ralph Gooding, of Blackheath, and, owing to his own rapid increase of feebleness, he soon retired to country life. His winning smile and kindly gentleness, his noble character and sympathetic bearing, will never be forgotten by his many friends and patients, who must all feel that they have sustained an irreparable loss.

LEGAL INTELLIGENCE.

RETAINING A DOCTOR.

THE following case is not only interesting, but most important to the Profession, and especially to the general Practitioner. In the Maidstone County Court, Charles Hadler was sued by John Fitzpatrick, Surgeon, for 15s., amount alleged to be owing for Medical services agreed to be rendered by the plaintiff. It should be stated that the plaintiff alleged he brought the action merely to have the point of law cleared up. On February 8 last, the defendant called upon the plaintiff to pay some money in respect of a Medical club to which he belonged, and of which club the plaintiff was Medical attendant. The defendant was then in the employ of another Medical gentleman, who had recently come to reside at Lenham. As defendant was leaving, he said, "I should like you to attend my wife in June or July"—meaning that she would then be confined. Plaintiff told him that he had better have his own master to attend her; but he replied that he should not like to have such a young gentleman. Plaintiff then agreed to attend her, and entered the engagement in his memorandum-book. In June he heard that the defendant's wife had been confined, and that she was being attended by defendant's employer. On going to the house and finding it to be so, he left word that he should claim his fee of 15s. on the engagement. A message had been sent to plaintiff's house, on the same day that plaintiff went to defendant's house, to the effect that his services would not be required any more by the defendant in his family.

In cross-examination by the Judge, the plaintiff said he considered he had undertaken to hold himself in readiness to attend the defendant's wife at any moment. He should not, however, stay away from his other patients about the time of her expected confinement; but if a message were left at his house, he should have gone directly he came home, or at any hour of the night. The defendant denied the engagement altogether, and called a witness, who stated she had taken a message to plaintiff's house about eight days before the confinement, to the effect that his services would not be required in defendant's family any more; but this, as the Judge remarked, went to prove the engagement, and the plaintiff would not have made the entry in his pocket-book (produced) without some cause; but he (the Judge) thought, although there was an engagement, it was not binding in law. There was no mutual advantage, as was necessary to support a breach of contract. The plaintiff's undertaking consisted almost entirely in booking the engagement, and if he was not at home (as he had never undertaken to be) when the confinement took place, and could not attend it through detention elsewhere, he could scarcely bring an action for breach of contract. He would, however, reserve his decision on the legal point till the next Court.

MEDICAL NEWS.

Royal College of Physicians of London.—At the ordinary quarterly meeting of the College on Thursday, the 26th ult., the following gentlemen, having passed the required examination, were admitted Members :—

Cook, John, M.D. Edin., 3, Upper Wimpole-street, W.
Glynn, Thomas R., M.B. Lond., 1, Rodney-street, Liverpool.
Payne, Edwin, M.D. St. Andrews, Walton House, Selhurst-road, South Norwood.
Squire, William, 6, Orchard-street, Portman-square, W.

Royal Colleges of Physicians and Surgeons, Edinburgh.—Double Qualification.—The following gentlemen passed their first Professional examinations during the October sittings of the examiners :—

Anderton, William, Ormskirk.
Hart, Henry, Kent.
Moir, Alexander, Bridge of Allan.
Orpen, Richard Hungerford, county Kerry.
Smith, Charles Edward, Essex.

And the following gentlemen passed their final examinations, and were admitted L.R.C.P. Edin. and L.R.C.S. Edin. :—

Cagney, Daniel, Croome.
Evans, Robert William Jonathan, Ruthin.
Fair, Robert Campbell, county Mayo.
Henry, George Fraser, Alyth.
Mason, William, Tralee.
O'Connolly, James, Drinagh.
O'Hanlon, William Palliser, Bandon.
Sparrow, Thomas Francis, county Kilkenny.
Steuart, Duncan, Edinburgh.
Sutherland, Daniel, Wick.

Royal College of Surgeons, Edinburgh.—The following gentlemen were admitted Fellows of the College at the annual meeting held on the 18th ult. :—

Crerar, Alexander, L.R.C.S.E., Rannoch.
Hicks, John Sibly, L.F.P. and S.G., Liverpool.
Meikle, Robert, L.R.C.S.E., Douglas, Lancashire.
Sainter, James Dow, M.R.C.S. Eng., Staff Assistant-Surgeon, Army, Military Barracks, Sligo.
Smith Robert, L.F.P. and S.G., Assistant Colonial Surgeon, Sierra Leone.

The following gentlemen passed their final examinations, and were admitted Licentiates of the College, during the recent sittings of the examiners :—

Maunsell, John, county Down.
M'Carthy, John Patrick, Glenogra.
Smith, Samuel John, Downpatrick.
Weir, Alexander M'Cook, Cookstown.

Apothecaries' Hall. — The following gentlemen passed their Examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, October 26, 1871 :—

Burgess, Edward Arthur, Bethnal-green-road.
Cane, Leonard, Queen-square, W.C.
Gatsell, Thomas, East-street, Walworth.
Harries, Thomas Davies, Llaneast, Fishguard.
March, Frederick Kimbell, Braunston, near Rugby.
Meredith, William Henry, Netherton, Worcestershire.
Rees, Albert Barnes, Swansea.
Watson, John Wilcocks, Heigham Hall, Norfolk.

The following gentleman also on the same day passed his first Professional examination :—

Godding, Charles Cane, Guy's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Avelino, Charles Taylor, M.B. Lond., F.R.C.S.E., and L.S.A.—Divisional Surgeon to the Hackney Police.

Brodie, Edward F., L.R.C.S.I., L.K.Q.C.P.I.—Medical Officer for the Lawrencetown Dispensary District of the Ballinasloe Union.

Campbell, Wm. Macfie, M.B., C.M.E.—Senior House-Surgeon to the Liverpool Northern Hospital, *vice* Thos. Dodson Chalmers, M.B. Edin., L.R.C.P. Edin., L.R.C.S., resigned.

Cross, F., M.R.C.S.—House-Surgeon to King's College Hospital.

Eardley-Wilmot, R., M.R.C.S.—Resident Accoucheur to King's College Hospital.

Emson, Alfred, M.R.C.S.E., L.S.A.—Medical Officer of the Dorchester District, and of the Workhouse of the Dorchester Union.

Hannay, R. Staickland, M.R.C.S.E.—House-Surgeon to the Westminster Hospital, *vice* Mr. William J. R. Ray, M.R.C.S.E. and L.S.A., resigned.

Reeve, Edmond, M.R.C.S., L.S.A.—Medical Officer of the Saham Toney District of the Swaffham Union, subject to the approval of the Local Government Board.

Vasey, C. Lyon, L.R.C.P.L., M.R.C.S.E.—Junior House-Surgeon to the Liverpool Northern Hospital, *vice* Wm. Macfie Campbell, promoted.

Warner, F., M.R.C.S., L.S.A.—House-Physician to King's College Hospital.

MILITARY APPOINTMENTS.

Royal Artillery.—Staff Surgeon Edmund M'Grath, to be Surgeon, *vice* Tertius Ball, M.D., who exchanges; Staff Assistant-Surgeon William Robertson, M.B., to be Assistant-Surgeon, *vice* Hugh Mackay Macbeth, who exchanges. Surgeon Alexander Scott Fogo, M.D., having completed twenty years' full-pay service, to be Surgeon-Major, under Article 342 of the Royal Warrant of December 27, 1870.

24th Foot.—Assistant-Surgeon William Tobin to be Assistant-Surgeon, *vice* Campbell Millis Douglas, M.D., V.C., appointed to the Staff.

31st Foot.—Staff Assistant-Surgeon Thomas Babington, to be Assistant-Surgeon, *vice* Charles Edward Jones, deceased.

Medical Department.—Surgeon Tertius Ball, M.D., from the Royal Artillery, to be Staff Surgeon, *vice* Edmund M'Grath, who exchanges; Assistant-Surgeon Hugh Mackay Macbeth, from Royal Artillery, to be Staff Assistant-Surgeon, *vice* William Robertson, M.B., who exchanges. The surname of the Staff Assistant-Surgeon appointed in the *Gazette* of September 19, 1871, is Cruickshank, *not* Cruikshank, as therein stated. Staff-Surgeon Robert Thomas Buckle, M.D., having completed twenty years' full-pay service, to be Staff Surgeon-Major, under Article 342 of the Royal Warrant of December 27, 1870. Assistant-Surgeon Campbell Millis Douglas, M.D., V.C., from the 24th Foot, to be Staff Assistant-Surgeon, *vice* William Tobin, appointed to the 24th Foot.

BIRTHS.

Austin.—On October 6, at Lingfield, Surrey, the wife of Sydney C. Austin, Surgeon, of a son.

Bryant.—On October 28, at 23A, Sussex-square, Hyde-park-gardens, the wife of John Henry Bryant, L.R.C.P. Edin., of a son.

Cameron.—On October 25, at Nairn, N.B., the wife of J. A. Cameron, M.B., of a son.

Ellis.—On October 28, at Shipley, Yorks, the wife of W. H. Ellis, M.R.C.S.E., of a son.

MARRIAGES.

Boxer—Jackson.—On October 9, at Quebec, Canada, at the residence of the bride's father, Charles A. Boxer, third son of W. L. Boxer, Esq., of her Majesty's Customs, Jamaica, and grandson of the late Admiral Boxer, C.B., to Susie, third daughter of Alfred Jackson, M.D.

Boyd—Carr.—On October 26, at St. Margaret's, Lee, Kent, Robert Boyd, Esq., of Glasgow, to Annie Gertrude, elder daughter of William Carr, M.D., F.R.C.S. England, of The Grove, Blackheath.

Burn—Bond.—On October 26, at St. John's Church, Notting-hill, George T. Burn, Esq., son of Dr. G. Burn, R.N., to Margaret Sophia, youngest daughter of Mr. Wm. Bond, Chard.

Fraser—Gard'ner.—On October 25, at the church of St. Michael and All Angels, Helensburgh, N.B., Henry Martyn Fraser, M.D., son of the late Rev. Hugh Fraser, of Ardchattan, and nephew of the late Sir Duncan Campbell, of Barcaldine, Bart., to Maggie Wilhelmina Dyce, second daughter of Lieutenant-Colonel Gard'ner, late of the 13th Bengal Native Infantry.

Freeman—Crosby. — On October 24, at St. Mary's, Lewisham, Kent, Joshua Charles Freeman, eldest son of the late Charles Henry Freeman, to Ellen Sarah, third daughter of John Lescombe Crosby, M.R.C.S., of Croft House, Carlton, Cambridgeshire.

Freeman—Hopewell.—On October 26, at the parish church, Abingdon, Northamptonshire, Alfred John Freeman, M.D., of San Remo, Italy, and Southsea, Hants, to Emma Louisa Hopewell, second daughter of Edward Hopewell, Esq.

Hall—Leonval.—On October 25, at the parish church, Bolton, Dr. John Hall, of Ruddington, Notts, to Margaret Louise, daughter of Jean Baptiste Paul Chappe de Leonval, of Prestwich.

Lindop—Heane.—On October 24, at Newport, Salop, John Crump Lindop, Surgeon, Newport, to Mary Ellen Maria, second daughter of the late Henry Heane, of the same place.

Mitchell—Burton.—On October 26, at Tottenham-court-road Chapel, Joseph Mitchell, L.R.C.P., to Emma, eldest daughter of Richard Frost Burton, Ballarat, Victoria.

Rogers—Shepherd.—On October 31, at St. Peter's, Bristol, the Rev. John Henry Rogers, curate in charge of Hemmington, Somerset, to May, only daughter of Dr. Shepherd, of Tyndall's-park, Clifton.

STEVENS—WINTER.—On October 25, at the parish church, Pewsey, Wilts, William Edward Stevens, M.R.C.S., to Eliza, only daughter of George Winter, Esq., of Pewsey.

DEATHS.

BRADY, LOUISA, widow of the late Charles Brady, Surgeon, at 194, Blackfriars-road.

EVANSON, RICHARD TONSON, M.D., at Torquay, suddenly, on October 26, in his 72nd year.

HILDER, HENRY HUGH, M.R.C.S.E., at Great Berkhamstead, Herts, on October 29, aged 68.

KEMPE, ARTHUR, F.R.C.S., at Southernhay House, Exeter, on October 25, aged 57.

KING, OSMER, F.R.C.S., late of Royal-hill, Greenwich, at Walton Villa, near Eccleshall, Staffordshire, on October 24, aged 54.

MOORE, WILLIAM D., M.D., at Fitzwilliam-square, Dublin, on October 28, in his 59th year.

SHAW, DAVID DE LEON HERBERT, only son of Deputy Inspector-General of Hospitals G. J. Shaw, M.D., late of H.M.'s Bombay Army, and grandson of David Thom, Esq., of Leith, at 18, Hope-crescent, Edinburgh, on October 26, in his 23rd year.

SIMPSON, EDWIN, M.R.C.S., L.S.A., of Long Melford, Sudbury, Suffolk, after a few days' illness, on October 24, aged 49.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

COUNTY OF WICKLOW INFIRMARY.—Apothecary. Must be duly qualified. Applications and testimonials to Mr. H. Rooke, Secretary, on or before November 13.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, BROMPTON, S.W.—Resident Clinical Assistant. Applications and testimonials to the Secretary, on or before November 4. Further information may be obtained at the Hospital.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Assistant-Physician. Must be M.R.C.P.L., or pledged to become so within twelve months. Applications and testimonials to the Secretary, on or before November 11.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Clinical Assistant. Gentlemen applying for this appointment must possess at least one qualification. Applications and testimonials to the Secretary, on or before November 11.

HULME DISPENSARY, MANCHESTER.—House-Surgeon. Must be duly qualified. Applications and testimonials to the Chairman of the Medical Committee, on or before November 6.

KENT AND CANTERBURY HOSPITAL.—House-Surgeon. Gentlemen applying for this appointment are required to possess qualifications in Medicine and Surgery. Applications and testimonials to Mr. T. Southee, Secretary, on or before November 24. The duties commence on January 1, 1872.

LINDSEY, LINCOLNSHIRE.—Medical Officer for the County Gaol and House of Correction. Candidates for this appointment must be duly qualified and registered. Applications and testimonials to the Deputy Clerk of the Peace, Lindsey, on or before November 18. The duties will commence about the end of March, 1872.

LIVERPOOL INFIRMARY FOR CHILDREN.—House-Surgeon. Medical and Surgical qualifications required. Applications and testimonials to the Chairman of the Committee, on November 11.

LONDON FEVER HOSPITAL.—Physician. The necessary qualifications are—F. or M.R.C.P.L. Applications and testimonials to the Secretary, at the Hospital, on or before November 7. Election on the 10th.

METROPOLITAN DISPENSARY, FORE-STREET, E.C.—Surgeon. Candidates for this appointment must be F. or M.R.C.S.E., not practising pharmacy. Applications and testimonials to Mr. F. Stiles, Secretary, on or before November 7.

MIDDLESEX HOSPITAL MEDICAL COLLEGE.—Lectureship on Materia Medica. Applications to the Dean, on or before November 11.

NORTH DEVON INFIRMARY.—House-Surgeon. Must be M.R.C.S.E., and be registered. Applications and testimonials to Mr. John Bridgman at the Infirmary, Barnstaple, on or before November 4. Election on the 14th.

PADDINGTON, PARISH OF.—Medical Officer and Public Vaccinator for the Eastern District of the parish. Candidates must have the qualifications prescribed by the General Orders of the Local Government Board. Applications and testimonials to the Clerk to the Guardians, Board-room, Paddington Workhouse, on or before November 8. Election the same day, at 10 o'clock, a.m.

POPLAR HOSPITAL FOR ACCIDENTS, 303, EAST INDIA-ROAD, E.—Resident Medical Officer, having qualifications in Medicine and Surgery. Applications and testimonials to the Rev. J. F. Kitto, on or before November 4.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, CITY-ROAD.—Operating Surgeon. The qualifications required are—F. or M.R.C.S.E. not practising midwifery or pharmacy. Applications and testimonials to Mr. C. L. Kemp, on or before November 7. Election on the 21st.

ROYAL SURREY COUNTY HOSPITAL.—House-Surgeon. Must be duly qualified in Medicine and Surgery. Applications and testimonials to the Assistant-Secretary, Guildford, on or before November 6.

SHEFFIELD PUBLIC HOSPITAL AND DISPENSARY.—Assistant House-Surgeon. The following qualifications are required:—Member of one of the Colleges of Surgeons of the United Kingdom, also L.S.A.; or possess a Licence to practise Medicine. Applications and testimonials to Dr. J. C. Hall, on or before November 15.

SUSSEX COUNTY HOSPITAL, BRIGHTON.—Surgeon. Must be M.R.C.S.E. Edin. or Dub. The office of Assistant-Surgeon is also vacant; the qualifications required are the same as for the appointment of Surgeon. Applications and testimonials to Mr. A. Vesey, on or before December 6.

TEIGNMOUTH, DAWLISH, AND NEWTON DISPENSARY AND INFIRMARY.—House-Surgeon. Must be duly qualified and registered. Applications and testimonials to the Chairman of the Committee, on or before November 16.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1861.

RESIGNATIONS.

Highworth and Swindon Union.—Mr. J. K. Kenyon has resigned the Third District; area 12,840; population 2954; salary £57 10s. per annum.

Toxteth-park Township.—Dr. Alex. McGregor has resigned the office of Assistant Medical Officer at the Workhouse; salary £100 per annum and allowances.

APPOINTMENTS.

Bristol Incorporation.—Robert Norton, M.R.C.S., L.S.A., to the Second District.

Bury Union.—Thos. Carrutbers, L.R.C.P. and L.R.C.S. Edin., to the First Tottington District.

Oakham Union.—Wm. J. Bonnor, M.R.C.S. Eng., L.S.A., to the Empingham District.

Pembroke Union.—Howard D. Reynolds, M.R.C.S., L.R.C.P., to the Fifth District.

Ticehurst Union.—Walter C. Blaker, M.R.C.S., L.S.A., to the Robertsbridge District.

Tiverton Union.—Edward M. Puddicombe, M.R.C.S. Eng., to the Silverton District.

Warminster Union.—Thomas Flower, M.R.C.S. Eng., L.S.A., to the Warminster and Corsley Districts and the Workhouse.

SIR WILLIAM FERGUSSON and DR. MORELL-MACKENZIE have been unanimously elected Corresponding Members of the Royal Buda-Pesth Society of Physicians.

THE ARMY.—We understand the subject of the abolition of the regimental Medical system has been abandoned, and eventually officers will not be allowed to hold regimental appointments for longer than five years.

CHOLERA is on the decrease in every part of Russia. A week ago the total number of cases under treatment in the whole empire was estimated at less than 5000.

SMALL-POX is so prevalent at Devonport that a temporary Hospital has been opened, and the Local Board have been recommended by the Medical Practitioners to close the schools in certain localities.

SCARLET FEVER is now epidemic in Londonderry—its prevalence amongst children is quite unparalleled; and small-pox is spreading alarmingly in Dublin. More than eighty cases have been reported in the Hospitals, and special provision has been made to meet the violence of the disease.

THE Winter Session of the Andersonian Institution, Glasgow, was formally opened on Tuesday, and Professor Herr Bischoff, recently appointed to the new Chair of Technical Chemistry, delivered his inaugural address in the great hall of the University. There was a large attendance of Medical gentlemen.

THE PHYSIQUE OF THE ARMY.—Major-General Brownrigg, speaking at a City festival a few days ago, said he was sorry to think that the *physique* of the army was not what it used to be. Certainly, the men had not the bone and sinew they used to have; and that was more especially so as regarded the artillery—the guns were becoming bigger and the gunners smaller.

THE LATE MR. FAITHORN.—At the last meeting of the Board of Guardians of the Amersham Union, the following resolution was passed, and a copy of it ordered to be sent to the family of the deceased—"That this Board desires to express its sense of the great loss which has been sustained by the death of Mr. Faithorn, the Medical Officer of the Chesham District, who was unremitting in his attention to the poor, and fell a sacrifice to his devotion to their interests."

A COMMITTEE of the Islington Guardians has been appointed to consider the propriety of disposing of the old workhouse in the Liverpool-road, with a view to prevent its being again converted into a temporary Hospital for the treatment of contagious disease.

DR. FRANKLAND, in reporting upon the results of a chemical examination of the water supplied to the metropolis during October, while acknowledging that the water sent out by those companies drawing their supply from the Thames and Lea had been "submitted to efficient filtration before transmission to consumers," adds—"The water delivered by the Chelsea, Southwark, Grand Junction, and Lambeth Companies was so polluted by dissolved organic impurities as to render it undesirable for human consumption."

THE MEETING OF THE ASSOCIATION OF GERMAN NATURALISTS AND PHYSICIANS AT ROSTOCK.—This, the forty-fourth meeting of this celebrated body, has only met with a qualified success, the number present being very limited. This has been attributed in part to the fear that outbreaks of cholera might call for attention in other directions, and also to the fact that men's minds have hardly yet become sufficiently settled after recent perturbations, while leisure has been wanting to

many. It would have been better to have postponed the meeting until another year. Such postponements have occurred five times before—viz., in 1831 and 1859 on account of the cholera, in 1848 on account of political events, and in 1867 and 1870 by reason of the war. Next year the Association will meet at Leipzig, where fifty years since (in 1822) the first meeting was held on the invitation of Professor Oken, and consisted of twenty-one persons. On the present occasion Professor Virchow delivered a very effective address (which will doubtless be published separately) "On the Position of the Natural Sciences in relation to the New National Life of Germany."

THE NEW GERMAN PHARMACOPŒIA.—A committee of twelve, consisting of four Professors of Materia Medica and of several Medical councillors and Apothecaries of various of the States, are to meet under the presidency of Geh.-Med. Rath Houssele, of Berlin, in order to prepare a conjoint pharmacopœia. The Committee has also the assistance of experts, as Privat-Docens, Oscar Liebreich, Prof. Schwanert, etc. It has been determined, notwithstanding the opposition of the Professors, to continue the adoption of the Latin language, although in South Germany the German has been long employed for this purpose; in fact, it would seem that the pharmacopœia will be little else than a new edition of the "Pharmacopœia Borussica," with the addition of some of the new remedies. If, as is said, it is to be printed by January 1, 1872, it is to be feared that its compilation will prove but a hasty and imperfect performance.

THE GERMAN BATHS IN 1871.—The following statement of the relative number of visitors frequenting the most celebrated German baths up to the end of August, 1871, may be interesting to some of our readers:—Aachen, 7162; Baden Baden, 36,614; Baden-bei-Wien, 7168; Badenweiler, 2409; Carlsbad, 16,725; Elster, 3632; Franzensbad, 7398; Gastein (Wildbad), 2194; Gleichenberg, 2302; Homburg, 14,342; Ischl, 3922; Kissingen, 8095; Kosen, 2411; Kropine-Töplitz, 1970; Marienbad, 7748; Nauheim, 4716; Neuenahr, 2671; Niederbronn, 1329; Norderney, 4654; Oeynhausen (Rehme), 3451; Pyrmont, 7017; Ragaz, 3376: Reichenhall, 4689; Rohitsch, 2202; Schandau, 1517; Schlangenbad, 1545; Schwalbach, 4627; Soden, 3292; Töplitz, 26,190; Warmbrunn, 2560; Weïsbaden, 40,386; Wildbad, 5841; Wittekind, 663.—*Deutsche Klinik, September* 30.

NOTES, QUERIES, AND REPLIES.

Be that questioneth much shall learn much.—*Bacon.*

Antwerp will see the report in question in the present number. American experience confirms the opinion that it is useless.

Mr. Delamark Freeman.—We shall be most happy to receive and publish your explanation of the affair.

Stockton.—As the case was adjourned we shall delay making any comments upon it until next week, when we hope to have full details of the evidence adduced on both sides.

Herbalists.—The *North British Mail* of the 27th ult. has an able leading article referring to an unrepealed Act of Henry VIII., which appears to sanction the practice of herb-doctors and such persons; and the writer expresses his opinion that the Act should be repealed.

Leper.—Dr. Gavin Milroy is at present, we believe, investigating the alleged successful treatment of leprosy by Dr. Beauperthuy. Considerable discussion on the subject of the case has taken place in Trinidad and other of the West Indian islands. We believe that Government was induced to send Dr. Milroy on his mission in consequence of the recommendations of the College of Physicians.

Kensington.—Dr. Dudfield, in his recently issued report for the year 1870, says—

"The population in 1870, at the middle of the year, is assumed to have numbered 115,062. The births registered during the year were 3705—viz., 1897 males, and 1808 females—equivalent to an annual rate of 32·20 to 1000 persons living, 3 per 1000 less than the birth-rate of the entire metropolis, which was 35·3 per 1000. The deaths registered were 2473 in number—viz., 1231 males, and 1242 females. The annual rate of mortality, therefore, was equal to 21·49 per 1000 in Kensington (or 20·45 per 1000, excluding the deaths of non-parishioners in the Brompton Consumption Hospital), while it was 24·31 in the West districts of London, 25·28 in the East districts, 24·12 in the metropolis as a whole, and 22·1 per 1000 in the entire kingdom. It is worthy of note that the annual death-rate of females in this parish was about 18 per 1000 only, as against 25 per 1000 of the opposite sex. The births exceeded the deaths in Kensington by 1232; but the estimated increase of population during the year was 8742, the difference being due to removals into the parish."

AMPUTATION OF THE TONSILS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Would you or any of your readers kindly inform me if amputation of the tonsils is likely to be followed by atrophy of the testes, and if in the female the continued use of iodine causes atrophy of the mammæ?

I am, &c., ATROPHY.

*** Nothing of the kind.

DYTE FUND.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In addition to the £42 already announced as received for the "Dyte *v.* The St. Pancras Guardians Appeal Fund," I beg gratefully to acknowledge the following subscriptions. In doing so, however, I must add, that unless further aid be speedily forthcoming, Dr. Dyte will be a loser to the extent of some hundreds, in the prosecution of his just claims, admitted as such by the Guardians themselves:—

	£	s.	d.		£	s.	d.
Andrew, Dr. James ...	1	1	0	Guy, Dr. W. A.	1	1	0
Beale, Dr. Lionel	1	1	0	Harley, Thomas, Esq. ...	1	1	0
Byles, J. C., Esq.	0	10	6	H. B., M.D....	0	10	6
B. C., Esq., M.D.	1	1	0	Lidderdale, John, Esq. ...	1	1	0
Brodhurst, B. E., Esq. ...	2	2	0	Mackenzie, G. W., Esq. ...	1	1	0
C. C. R., Esq.	0	5	0	Ramskill, Dr. J. S. ...	2	2	0
Clinton, Colonel	1	0	0	Rayner, Messrs., Uxbridge	1	1	0
Corfe, Dr. George	1	1	0	Sequeira, H. L., Esq. ...	0	10	0
Codd, G. G., Esq.	0	10	0	Sequeira, J. S., Esq. ...	0	10	6
Couper, John, Esq. ...	1	1	0	Tay, Waren, Esq.	0	10	6
Gill, J. B., Esq., M.D. ...	1	1	0	Wertheüner, Messrs. ...	1	1	0
Godfrey, Dr.	1	1	0				

I am, &c., W. BATHURST WOODMAN.

6, Christopher-street, Finsbury-square, E.C.,
October 31.

A CANDIDATE FOR THE MATRICULATION EXAMINATION.

"AUDI ALTERAM PARTEM."

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Intending to be a candidate for the Matriculation of the London University in January next, will you permit me to say a few words on the subject?

Being of Medical extraction, I have frequent opportunities of seeing the various remarks made in yours and in other papers on the matriculation and other examinations, which are pointed out to me in order, I suppose, to act as a stimulus, so that I may exert myself the more. Now, I have read these various remarks, and also the questions of the previous examinations, and I have also written the answers to them, and cannot for the life of me see what there is to grumble at. The questions appear to me, with some trivial exceptions, to be quite fair; and, as to those on natural philosophy, anyone who has paid any attention to the subject cannot fail to pass. I do not mean to say that a man who has merely taken a book on the subject and has "crammed" up various proofs and formulæ without having the faintest idea of their meaning, would do so (this might have paid two or three years ago), but if he thoroughly understands the main principles, he cannot fail to satisfy the examiners. Professor Haughton's remarks on the paper given this year in the Preliminary Scientific Examination were hardly necessary; for I know several men who passed it, and who say that it was a "decent" paper, and by no means so outrageous as the above-named Professor makes it out to be.

Again, as to the chemistry, many fellows who have only played at the subject while at school have been able to do, with a very little extra work, a good paper. If the "attention" candidates pay to their preliminary studies is anything like that which they pay to their college lectures, either in Arts or Medicine, they deserve to be plucked; for it is disgraceful to see the foolish (and more than foolish) pranks that are performed during the lectures, which not only injure the doers themselves, but prevent those desiring to study from paying the attention which the subject demands.

Pray, Mr. Editor, try and shame those whose "buoyant" spirits render them a nuisance to professor and student alike, and do not try to lower the standard of the University examinations. I am, &c.,

STUDENS (age 16).

*** We hope our young friend will find the examination as easy as he expects, and will pass with flying colours.

MEDICAL ETIQUETTE IN BAYSWATER.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I beg to call your attention to the enclosed copy of a circular which has been recently distributed in this neighbourhood, and which, as you will see, sets forth that a "Society" has been formed with the object of providing first-rate Medical attendance and medicine for an annual payment of 10s. The subscriptions are received quarterly or half-yearly in advance at the residence of Mr. Delamark Freeman, 20, Talbot-road, whose name, with that of a secretary, alone appears on the prospectus.

By what is perhaps merely a coincidence, a man has been engaged during the past few weeks calling upon the residents, including many of my patients, and soliciting them, in the most importunate manner, and much to their annoyance in many instances, to become members of this "Society." When taxed with being an agent of Mr. Freeman's, he answered that he was performing his laborious task with purely benevolent motives; that a relative of his had long suffered from a dreadful malady, which, having defied the efforts of all the Medical men in Bayswater, was cured with marvellous rapidity by Mr. Freeman, and that he was therefore anxious that every sufferer should avail himself of Mr. Freeman's extraordinary skill, more especially since they could do so for the ridiculously small sum of 10s. a year, not to speak of the medicines included.

Now, Sir, in the advertising columns of the papers we read daily of cases in which wonderful cures have been wrought by means of a single box of pills, or ointment, and as we of course believe these to be true, we do not doubt that Mr. Freeman's case may be also authentic; but I and many of my *confrères* in this district, for whom I speak, deny that this case had been previously treated by us, and we therefore deny, at least, that it had defied the efforts of *all* the Medical men in Bayswater. Seriously, we think we have a right to demand from Mr. Freeman some account of the constitution of this "Society" to which he is Surgeon; and we shall also be glad at the same time to hear whether the touting to which I have alluded has been carried on with his consent, and if not, whether he has requested his officious friend to desist from so equivocal a mode of displaying his gratitude. If Mr. Freeman can give us satisfactory explanations

on these points, and if he can clear himself from the grave charges of Professional misconduct which Dr. Roystan brings against him, I am sure he will receive from the neighbouring Practitioners a welcome such as is never refused to new-comers in Bayswater when their conduct is that of Professional men and gentlemen.

I am, &c.,
112, Westbourne-grove, Bayswater. ALGERNON C. W. NORTON.

[*Copy.*]

"BAYSWATER MUTUAL MEDICAL AID SOCIETY, for securing Professional Medical and Surgical attendance, and the supply of all medicines to the subscribers.—This Society is formed to enable persons, by payment of a small sum, to secure themselves efficient Medical and Surgical aid in case of illness or accident. All persons residing within the area of three miles of the 'Royal Oak,' Bayswater, can become members of this Society. It is not intended that persons who may be suffering from any chronic or inveterate disorder shall participate in the advantages of this Society. Terms of subscription: 10s. per annum, payable quarterly or half-yearly in advance. Hon. Sec., H. Harris, Esq.; Surgeon, Delamark Freeman, 20, Talbot-road, Bayswater, W. Subscriptions will be received between the hours of 10 and 11 o'clock in the morning, and from 7 to 8 o'clock in the evening, at 20, Talbot-road."

COMMUNICATIONS have been received from—

Mr. W. M. CAMPBELL; Mr. LOCK; Mr. C. T. AVELING; Mr. ASHURST; Mr. CROSKERY; Dr. HANDFIELD JONES; Dr. WILLIAM THOMSON, Australia; Dr. ALLBUTT; Dr. BEVEALEY; Mr. METCALFE JOHNSON; Mr. W. R. COANISH; Mr. T. E. AMYOT; Dr. J. WHITEHEAD; Dr. EDIS; Mr. R. E. WILMOT; Mr. T. JACKSON; Mr. J. A. CAMERON; Mr. DANKAERTS; Mr. C. INGLEBY; Mr. W. B. WOODMAN; Dr. FELCE; UNDERGRADUATE; Mr. DOCKER; Mr. J. ROBERTSON; Mr. HANNAY; Mr. LE GROS CLARK; Mr. GRANT; Mr. BRARENRIDGE; Dr. MALE; Dr. SUTHERLAND; Dr. A. C. W. NORTON; Sir WILLIAM JENNER; Mr. D. H. WATSON; Mr. R. LIEBREICH; Dr. FRANCIS R. HOGG, R.H.A.; Mr. W. MACFIE CAMPBELL; Dr. GOODING; Mr. J. C. BROUGH; ATROPHY; Dr. HOAION; Mr. D. FREEMAN.

BOOKS RECEIVED—

Porcher on the Resources of the Southern (American) Fields and Forests —Mr. Spencer Wells' Note-book for Cases of Ovarian and other Abdominal Tumours—Marsden on Cholera—Kidd on Decapitation as a Mode of Delivery in cases of Shoulder Presentation in which Version cannot be safely effected—Report on the Health of the Parish of St. Mary Abbotts, Kensington—Bray's Manual of Anthropology, or Science of Man, based on Modern Research.

PERIODICALS AND NEWSPAPERS RECEIVED—

Nature—Pharmaceutical Journal—North British Daily Mail—Cope's Tobacco Plant—The Chloralum Review—Kingston (Jamaica) Gleaner —Monthly Microscopical Journal—Hardwicke's Science Gossip—Medical Press and Circular—London Medical Journal—The Morningside Mirror.

APPOINTMENTS FOR THE WEEK.

November 4. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; King's, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

6. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

ANTHROPOLOGICAL INSTITUTE, 8 p.m. Meeting.

MEDICAL SOCIETY OF LONDON, 8 p.m. General Meeting. Dr. Lichtenberg, "Rhinoplastic Operation" (two cases, with patients). Mr. Thomas Bond. "On Urethral Rheumatism."

ROYAL INSTITUTION, 2 p.m. General Monthly Meeting.

7. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

PATHOLOGICAL SOCIETY, 8 p.m. The following Specimens will be exhibited:—Dr. Moxon, "Circumscribed Pleurisy and Pneumonia in a Syphilitic Man; Destruction of Trachea by Syphilis." Dr. Pye-Smith, "Cystic Disease of the Kidney." Dr. Dickinson, "Intracranial Aneurism productive of Sudden Death," etc.

8. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 2 p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

9. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; West London, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

10. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

CLINICAL SOCIETY, 8½ p.m. Dr. John Murray, "On a Case of Paracentesis Thoracis." Dr. Anstie, "The Continuation of a Case previously reported." Mr. Christopher Heath, "A Case of Wound of the Intestine during Ovariotomy, with Recovery." Dr. Ogle, "Notes on the Temperature in Tetanus."

QUEKETT MICROSCOPICAL CLUB, 7 p.m. Extra Meeting, for Conversation and Exhibition of Objects only.

VITAL STATISTICS OF LONDON.

Week ending Saturday, October 28, 1871.

BIRTHS.

Births of Boys, 1099; Girls, 1103; Total, 2202.
Average of 10 corresponding weeks, 1861-70, 2070·9.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	686	678	1364
Average of the ten years 1861-70	670·4	649·5	1319·9
Average corrected to increased population	...	...	1452
Deaths of people aged 90 and upwards.	...	...	...

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561189	4	5	7	...	6	...	2	...	5
North ...	751668	23	10	9	1	12	...	7	...	7
Central ...	333887	4	2	4	1	3	...	2	3	1
East	638928	10	5	1	...	2	3	4	4	8
South	966132	20	14	10	4	17	1	8	3	11
Total	3251804	61	36	31	6	40	4	23	10	32

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	30·017 in.
Mean temperature	46·9°
Highest point of thermometer	58·6°
Lowest point of thermometer	33·0°
Mean dew-point temperature	44·2°
General direction of wind	Variable.
Whole amount of rain in the week	0·01 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, October 28, 1871, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1871.*	Persons to an Acre. (1871.)	Births Registered during the week ending Oct. 28.	Deaths Registered during the week ending Oct. 28.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3263872	41·8	2202	1364	58·6	34·6	46·9	8·28	0·01	0·03
Portsmouth ...	113450	11·9	78	39	68·8	36·2	49·0	9·44	0·26	0·66
Norwich	80533	10·8	45	41	57·0	34·2	46·4	8·00	0·25	0·63
Bristol	183298	39·1	151	88	...	...	...	...	...	...
Wolverhampton ...	68476	20·2	40	38	61·0	32·0	48·3	9·05	0·36	0·91
Birmingham ...	344980	44·1	239	126	60·0	36·8	49·6	9·78	0·27	0·69
Leicester	95882	30·0	74	26	61·0	34·0	47·8	8·78	0·02	0·05
Nottingham ...	86929	43·6	51	42	60·6	33·7	48·6	9·22	0·28	0·71
Liverpool	493649	96·8	333	222	...	...	...	...	...	...
Manchester ...	356099	79·4	255	188	60·5	34·0	48·0	8·89	0·92	2·34
Salford	125422	34·3	108	64	60·1	32·8	47·3	8·50	1·08	2·74
Bradford	146987	22·3	93	57	59·8	41·0	50·5	10·28	0·17	0·43
Leeds	260657	12·1	187	96	60·0	37·0	49·4	9·66	0·28	0·71
Sheffield	241507	10·6	205	131	59·0	35·0	49·3	9·61	0·43	1·09
Hull	122266	34·3	86	41	59·0	32·0	48·6	9·22	0·14	0·36
Sunderland ...	98797	29·9	62	79	...	...	...	...	...	...
Newcastle-on-Tyne	128677	24·1	86	73	58·0	41·0	49·1	9·50	0·18	0·46
Edinburgh	201728	45·6	110	109	58·7	34·0	49·1	9·50	0·70	1·78
Glasgow	479227	94·7	347	256	...	...	...	...	...	...
Dublin (City, etc.)	310565	31·9	131	142	63·4	38·0	51·2	10·67	0·81	2·06
Total of 20 Towns in United Kingd'm	7204001	33·8	4883	3222	68·8	32·0	48·7	9·28	0·39	0·99

At the Royal Observatory, Greenwich, the mean reading of the barometer in the week was 30·02 in. The highest was 30·21 in. on Sunday evening, and the lowest 29·51 in. at the end of the week.

* The figures in this column are the unrevised numbers enumerated in April last, raised to the middle of the year by adding 1-40th of the rate of increase which prevailed between 1861 and 1871. As the population of Dublin and its suburbs showed a decline between the Censuses of 1861 and 1871, the enumerated number in April last has been inserted for that city, the population being assumed to be now stationary.

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Messrs. DARBY and GOSDEN respectfully call the attention of the Profession to this important and valuable improvement in a soluble animal food. The necessity for such a food in the treatment of diseases and during convalescence is fully recognised by the Profession, and even by the public, as is clearly manifested in the ready acceptance and extensive employment of Liebig's Extractum Carnis.

Whilst the public are unable to appreciate the fact, yet physiologists are well aware of the objection to an extract of meat consisting, for the most part, of the elements of nutrition in a state of retrograde metamorphosis: taking from animal flesh what is soluble in cold water, subjecting the solution to a boiling-heat and evaporation—*i.e.*, making an extract—excludes all the fibrine, albumen, and gelatine, the very substances which give meat its superiority as an article of diet over all others. These constituents are those most needed to supply the waste from wear and tear, and to restore the tissues after the rapid destruction caused by fevers, inflammations, and other exhausting diseases.

Baron Liebig himself recognises the inefficiency of his "Extractum Carnis." He has remarked ("Lancet," 1865)—"Were it possible to furnish the market at a reasonable price with a preparation of meat containing in itself the albuminous together with the extractive principles, such a preparation would have to be preferred to the Extractum Carnis, for it would contain the nutrient constituents of meat."

This is exactly what is accomplished in our FLUID MEAT. Fibrine, albumen, gelatine, together with all the saline constituents and extractive matters, exist as in meat and its tissues, but that they are brought into a soluble state—*i.e.*, the first step in stomach-digestion—by means of pepsin and hydrochloric acid, an artificial gastric juice. It will therefore be obvious how well adapted this Fluid Meat must be for all cases of weakened digestion, irritable stomach, insufficient nutrition, and convalescence from diseases which, like fever, consume the various tissues. It must also be equally acceptable as a concentrated form of food to persons in health, when subjected, by exercise or otherwise, to temporary exhaustion and wear and tear.

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ORIGINAL LECTURES.

LECTURE ON OPTIC NEURITIS FROM INTRACRANIAL DISEASE.(a)

DELIVERED AT THE LONDON HOSPITAL.

By J. HUGHLINGS-JACKSON, M.D., F.R.C.P.,
Physician to the London Hospital and to the Hospital for the Epileptic and Paralysed.

(*Concluded from page* 342.) (b)

13. *How does an adventitious product in the cerebrum lead to double optic neuritis?* I shall speak of the cerebral hemisphere only, because coarse disease of the cerebellum (or tumour under the tentorium) may exercise pressure on the corpora quadrigemina. These cases are complicated. We will consider three hypotheses:—

(*a*) Has the coarse disease destroyed some Centre for Sight? It can have destroyed no *known* part of the optic nervous system—taking a case of small tumour in the cerebrum. I do not believe in any "centre for sight" in the hemisphere, although I do believe that the optic and all other nerves are represented—perhaps I should say re-represented—in the cerebral hemisphere in very complex groupings. The fact is, that the coarse disease has not caused the defect or loss of sight by *destroying* any part of the hemisphere whatever; for destruction of large parts of the hemisphere may cause no obvious symptoms of *any* kind. Mark, I do not say that *disease* of the hemisphere does not; I say that *destruction* of much of it does not. If the destroying agent be a "foreign body," it may, and often does, lead to many symptoms, and amaurosis from double optic neuritis is one of them. A tumour does not "cause" amaurosis because it has *destroyed* so much of the hemisphere, but because it has led to secondary changes. Even supposing that there *is* a centre for sight, and even supposing that it is altogether destroyed, there must be a similar one in the opposite undamaged hemisphere. (Coarse disease in either cerebral hemisphere may lead to loss or defect of sight.)

In strictness, disease of no part of the hemisphere, so far as I know, "causes loss of sight." It causes inflammation of the optic nerves. This is neither scientifically nor practically a mere verbal distinction, for the optic nerves may be inflamed when there is no loss of sight (see No. 5), and loss or defect of sight may not follow, although it usually does. In Physicians' practice optic neuritis most frequently results from the *presence of a foreign body* in parts of the cerebral and cerebellar hemisphere, *destruction* of which parts may produce no symptoms at all. I shall in future lectures show you that optic neuritis goes most frequently with vomiting, headache, and with other symptoms which are not specially nervous.

To make what I have said clearer, let us make a comparison, or rather, as it will appear, a contrast betwixt loss of speech and amaurosis from optic neuritis. Observe, I do not say betwixt loss of speech and optic neuritis. This would be to institute a comparison betwixt a symptom and a pathological condition.

Loss of speech *is* caused by *destruction* of certain processes superintending speech. The amaurosis is not caused by destruction of any part superintending sight. For the loss of speech it matters not what the particular pathology of the lesion may be, clot or softening; it is enough that it is a *destroying* lesion. The lesion is of great consequence as to the production of amaurosis; it is "coarse" disease. Loss of speech depends on a primary change; it comes on as soon as the destruction is effected. The amaurosis depends on a change secondary to a primary lesion, and comes on after the primary lesion is developed. Loss of speech depends on direct lesion of a special part; amaurosis depends indirectly on disease of many parts.

(*b*) The coarse disease may have led to pressure transmitted to the optic nerves and venous sinuses at the base. This can only be entertained when there is a very large tumour—for instance, a great hydatid cyst. Now, in some of these cases there plainly is great pressure, as is evidenced in children by enlargement of the head. Thus it may be supposed that the neuritis is due to pressure transmitted to the optic nerves at the base, or that it is owing to impeded flow of blood from the eye into the cavernous sinus. I do not think it owing to pressure on the optic nerves, because none of the other nerves at the base suffer, and if the optic nerve fibres were partly or wholly destroyed by squeezing I should rather expect slow atrophy than neuritis. Nor do I think impeded exit of blood by pressure on the sinuses is the cause, because the neuritis runs through its stages, and the swelling of the discs subsides, although the intracranial pressure goes on increasing. In these cases of vast tumours, the optic neuritis does not differ from that caused by small tumours at the vertex of the brain, which cannot exercise pressure of any consequence at the base. There are the same ophthalmoscopical appearances in each class of cases. In some cases of large cerebral tumour there is no amaurosis, but, as we have seen (No. 5), there may nevertheless be double optic neuritis. But there may be no neuritis, or, at all events, no swelling of the disc. You should never omit to use the ophthalmoscope in cases of thoracic or abdominal cancer, for in these cases you occasionally find post-mortem secondary cancer of the brain, although the patient's symptoms never led you to suppose there was any grave cerebral lesion. In one such case carefully observed by Mr. Stephen Mackenzie, we found no swelling of the discs and no enlargement of the veins, although post-mortem there was discovered, besides cancer in the thorax, extensive cancer of each cerebral hemisphere and of each lobe of the cerebellum. We must suppose that in such cases the tumours develope rapidly, and that thus they would lead to increase of intracranial pressure very quickly. I believe, then, that the intracranial disease does not lead to optic neuritis by causing increased pressure within the head.

3. I come now to the hypothesis, several times implied, that double optic neuritis is the result of irritation by the foreign body in some parts of the encephalon. This is in effect the hypothesis of Brown-Séquard. The neuritis I suppose, as Benedikt does, is probably produced by the intermediation of the arteries and their vaso-motor nerves. But observe, in the present state of our knowledge, I *cannot know* this; and, as Dr. Moxon says in an Introductory Lecture at Guy's Hospital, "Never trust a man for what he cannot know." I do not wish for a moment to conceal from you the great difficulties in the way of concluding. I confess that optic neuritis is a very great puzzle. But although we cannot declare how optic neuritis results from adventitious products within the cranium, there is one thing we can do now. We can, in numerous cases, note the circumstance with which it occurs, and use hypotheses to put our facts in *some kind* of order. I offer the following suggestions with this object:—

(1.) Amaurosis from optic neuritis (there may be no amaurosis—see No. 5) occurs with general symptoms which show disturbance of brain—viz., severe diffused headache, vomiting, slow and, possibly, unrhythmical pulse, and the symptoms of "cerebral fever."

(2.) It often occurs with convulsive seizure; or, putting it in another way, with affections of grey matter—with "discharging lesions."

(3.) In a considerable number of cases in Physicians' practice it occurs with those convulsions (convulsions beginning unilaterally) which point to disease of the convolutions of the cerebrum in a certain arterial district. In some of these we have three symptoms: (*a*) right-sided convulsions, (*b*) epileptic aphasia, (*c*) temporary loss of sight. These symptoms may hypothetically be explained on the supposition that parts are affected in the region supplied by the middle cerebral artery, and branches from the internal carotid, of which trunk the middle cerebral is practically the continuation. In these cases the temporary symptoms are, as it were, occasionally written down in permanent symptoms. There follow hemiplegia (epileptic hemiplegia), temporary defect of speech, and amaurosis from optic neuritis.

In conclusion, I beg you to remember, at all events, three things:—1st. That optic neuritis frequently exists where the patient can read the smallest type. 2nd. That the ophthalmoscopic appearances vary extremely in degree in cases of adventitious products within the cranium, and that the appearances vary much at different stages in the same case. 3rd. That you should *never* omit to use the ophthalmoscope when a patient has *severe* and *continued* headache.

(a) This lecture was delivered several years ago, and, with modifications, again in June last, in reference to particular cases of cerebral disease. As since 1863 I have published numerous papers on Medical Ophthalmoscopy (Royal London Ophthalmic Hospital Reports), this lecture necessarily involves considerable recapitulation; but there is no impropriety in reproducing in a condensed form the facts stated in former papers, and the opinions therein expressed, now partly modified.

(b) Since this was written, Dr. Clifford Allbutt's book, referred to by anticipation (page 241), has appeared. In Chapter V. of that work he goes thoroughly and most ably into the various hypotheses on the mode of production of changes in the optic discs by intracranial tumours. In the forthcoming number of the Royal London Ophthalmic Hospital Reports Dr. Hermann Pagenstecher discusses this question very carefully.

THE

DISCUSSION ON PURULENT INFECTION

AT THE

PARIS ACADEMY OF MEDICINE.

By Professor VERNEUIL.

(*Continued from page* 553.)

I SHALL to-day try and complete the demonstration of my first communication—namely, to prove, as stated in my eighth and last proposition, that pyohæmia is nothing more than a severe septicæmia, with special complications having special causes, but which, in spite of these special characters, enters into the series of traumatic fevers, and does not break the unity.

I have taken care to determine in a rigorous manner the meaning of certain terms. I chose a name for the putrid poison—*sepsine;* another for the poisoning—*septicæmia;* and thus it was easy to give a definition to the latter—infection of the blood by the sepsine. If I were to adopt the ideas which have been taught for the last fifty years, I should do the same with purulent infection. The name of the poison (the pus), as well as that of the poisoning (the pyohæmia), already exists, and this latter would have a definition in itself: the infection of the blood by the pus.

Unfortunately, I shall have to begin by placing myself in opposition with the most universally adopted ideas, and, without paying any attention to them, overthrow a dogma which, to tell the truth, has never been seriously questioned. In giving the name of pyohæmia, or purulent infection, to the disease attributed to a mixture of pus with the blood, it was scarcely remarked that we were simply making a *petitio principii;* for we admit as demonstrated the three things which are precisely under litigation—the toxic property of pus, the reality of its mixture with the blood, and, lastly, the dangers of this mixture.

At the time when the belief which I now contest was first established, it was never asked if the pus is always the same—if sometimes it is not deprived of, and at other times endowed with, deleterious properties; if in this complex fluid such an action might not be due to the liquid part, and such another to the figured elements; if, lastly, the matter in question, which was considered altogether foreign to the organism, was not, on the contrary, formed by the simple heterotopical hypergenesis of a normal anatomical element.

It is true these questions—secondary in appearance, though they dominate the debate—have long ago been answered; but as the answers were at times contradictory, many Surgeons, tired of the hesitations of the dogma, neglected the questions of first cause and intimate nature. Content to recognise the existence of a general disease of a serious nature—*clinically* characterised by fever, adynamia, and a fatal progress, generally ending in death; *anatomically* by the formation of abscesses in the viscera or the cellular interstices—they continued to give to these series of symptoms and lesions the convenient name of pyohæmia, or purulent infection.

As concerns the qualities and properties of pus, modern science has definitely established the following facts:—

1. Pus—a humour which might be qualified as useless without considering it morbid—like the blood, is composed of organic and mineral substances, suspended or dissolved in a serum, and of figured elements, called leucocytes or purulent globules.

2. These leucocytes do not differ sensibly from the white blood globules, excepting that they are in a state of ectopia—that is to say, situated outside of the vessels in cases of abscess, of purulent secretion, and of suppurating wounds.

3. Pus, like other humours of the body, such as blood, urine, bile, etc., may present itself in two forms—not always easily distinguished from each other, but which are incontestable—in a state of purity, and in a state of alteration.

4. Pure pus, also called fresh, laudable, or non-fetid, is not possessed of any deleterious properties, and exercises no injurious effect upon the organism; it can be injected into the connective tissue, into the natural cavities, and even into the bloodvessels themselves, without causing the slightest derangement.

5. This rule suffers one exception. If the pus globules are introduced into the circulation in too great a quantity they may, like air or any other insoluble minutely pulverised substance, bring about capillary obstructions. These *embolies* may be of serious consequences, but they only act in a mechanical way. The experiment, which consists in asphyxiating an animal by injecting a large quantity of pus into the veins all at once, is curious, but not applicable to the theory of pyohæmia in man; it only explains how, in a few well-authenticated cases, the breaking of an abscess into a vein has been capable of causing death in a very short space of time.

6. The nocive action of laudable pus injected into the veins is alone imputable to the globules; the serosity, if carefully filtered, can be transfused in considerable quantity without fear; the functional disturbances which have been observed by certain authors are very mild, and resemble in no way the symptoms of pyohæmia.

7. Clinical observations go to confirm these experiments in more than one instance. Collections of pus sometimes sojourn for months, and years even, in the natural or accidental cavities of the body, without producing the least febrile reaction; or they may also be slowly absorbed without inconvenience, and in that case prove of benefit to the general health and certain compromised functions.

In leucocythæmia we find the bloodvessels charged with an enormous quantity of white globules; but the symptoms of this disease, however formidable, differ completely from those which characterise pyohæmia. The only and formal conclusion is this: normal pus, deprived of all toxic properties, cannot be considered as the poison of pyohæmia. Thus the *petitio principii*, before alluded to, is demonstrated.

This irrefutable argument will doubtless compel the partisans of the old theory to change their front of battle. They will quote the innumerable experiments showing the possibility of developing pyohæmia by the direct introduction of altered pus into the circulation. They are right, it is true; but unrelenting criticism finds new objections.

The expression "altered pus" is very elastic, and it is necessary to specify the nature of the alteration. Pus proceeding from syphilis, variola, glanders, or carbuncle is not normal, therefore it is altered; but it is altered in a special manner for each of the corresponding diseases. Are we to believe in the existence of pyohæmic pus, which serves as the substratum or the vehicle of a special poison as in the above-mentioned diseases, and, consequently, capable of reproducing pyohæmia by contagion, miasma, inoculation, or by any other process?—or is the altered pus which creates pyohæmia merely charged with sepsine, and equally capable of producing the simple form of septicæmia if introduced into the system in a certain manner? What pleads in favour of the latter hypothesis is, that pus, like all fluids and solids of the body, is very apt to undergo ordinary putrefaction, and it is then that it most surely creates purulent infection. Seeing the importance of the question, I shall have to ask permission to enter into it more fully. As in the case of normal pus, let us resume what the researches of the last fifty years have taught us about putrid pus.

1. Putrid pus introduced into the economy, immaterial in what way, and in the slightest quantity, surely and rapidly causes disease—a real intoxication.

2. This disease presents two distinct forms; in one may be easily recognised the characters of septicæmia, whereas in the other the progress as well as the symptomatology is somewhat different; visceral abscesses are found at the autopsy. In short, we have to do with classical pyohæmia.

3. The experimenter may, as he likes, produce one or the other of these forms. For septicæmia he need only take the filtered serosity, and inject it into the connective tissue, into the vessels, or any other part of the body; if the pus employed contain both serum and globules, care must be had not to inject it directly into the veins. It is by this process, on the contrary, that pyohæmia is sure to be brought about, and we may therefore, for the present, at least, define pyohæmia as a disease caused by the direct introduction of putrid pus into the veins.

The adverse party wins, but only upon one point; for, far from being demonstrated, the specificity of pyohæmia is absolutely contradicted by these experiments. In order to create a truly specific disease, like syphilis, variola, carbuncle, or glanders, by way of experiment, it is necessary, first of all, to procure the toxic matter from a thoroughly infected subject, and the pus, if pus is made use of, must be taken from a person affected with syphilis, variola, carbuncle, or glanders. These essential conditions existing, every part of the pus is equally efficacious—the filtered serosity, the globules alone, or both together; nor does it matter as regards the manner of introduction—connnective tissue, cavities, vessels. With pyohæmia it is otherwise; it makes no difference where the pus comes from so long as it is putrid. But, to insure the success of the experiment, two conditions are requisite—the pus globules and

their direct transfer into the venous system. Any other method of experimenting will merely produce septicæmia.

If my opponents, pushed to the last extremity, were to argue that the specific properties of pus reside in the globules, I could easily prove that the said globules only act in a mechanical manner, like any other solid particles, and as simple vehicles of the septic matter. A third series of experiments will prove this latter proposition.

1. Any inert foreign body, deprived of toxic properties, introduced into the organism, is either tolerated or else causes an inflammatory process to take place in its vicinity, which, if once begun, may present all the possible terminations of inflammation.

2. If the introduction be made directly into the vessels (I leave aside, on purpose, the extra-vascular foreign bodies), and the volume of this foreign body be of any considerable size, it eventually arrives at some vascular tube which it cannot traverse. There it stops, obstructs the tube, and consecutively brings about all the secondary lesions following ischæmia on the one hand, and the inflammatory process on the other—that is to say, *ramollissement*, sphacelus, infarctus, and the so-called metastatic abscesses.

3. These results have been produced again and again by Cruveilhier, D'Arcet, Virchow, Coze, and Feltz, and many others, with mercury, gold, caoutchouc, the pith of elder, fibrine, and various powders. The theory of artificial embolus is to-day complete. I have already observed that the leucocytes of laudable pus, in their capacity of solid bodies, enjoy the same properties, although, inasmuch as their volume is in relation with the calibre of the capillaries, they rarely stop when they are isolated and free; but, nevertheless, their stoppage is possible and proven—at least, as far as the leucocytes of the blood are concerned; for nothing is more common than to observe in the disease called leucocythæmia the obstruction of capillaries by an accumulation of white globules. It may be added that, after thrombosis, the blood-clots (the most benign of all intra-vascular foreign bodies) may be displaced, become embolic, and thus exert the mechanical action already invoked.

4. *En résumé:* the action of most foreign bodies, whether coming from without or arising in the interior of the vessels themselves, is the following, in case of migration:—Vascular obstruction, according to the volume; possible toleration, but also imminence of secondary inflammatory or other lesions.

But what will take place if the foreign body is in itself, or by impregnation, poisonous? The result can be easily foreseen. Local toleration may still be observed, provided the poison is not phlogogenous; but this will be rare, and intoxication must almost inevitably follow in every instance. If the foreign body remains outside of the vessels, we have to do with a poisoned wound, complicated by the sojourn of the toxiferous body—that is to say, with all the conditions favourable to the development of local and general accidents. If the foreign body is carried into the circulation, it first infects the blood in its course, and afterwards causes, at the place where it stops, an obstruction, creates a morbid focus, and lastly realises every condition and all the effects of an intra-vascular inoculation.

The theory of experimental pyohæmia is based entirely upon this point:—The putrid pus is injected into the veins; its serum infects the blood, and also the globules, which yield a part of the poison that impregnates them, whence the preparatory septicæmia. These same globules, once carried into the capillary network, come to a standstill, create an infarctus, which suppurates, and in its turn becomes a new focus of septicity, more dangerous than ever, inasmuch as it is inaccessible to therapeutics. But do not believe that the purulent globules alone are capable of producing such effects; any solid particle will do the same, provided it is imbibed with poison. Take any powder, sprinkle it with any putrid serosity, well filtered; in the absence of powder, take certain fluids which are insoluble in the blood (such as mercury or fat-globules), or take putrefied blood-clots reduced to fragments, and inject them into the veins—pyohæmia, with its fever, its adynamia, and its metastatic abscesses, will be the fatal and never-failing result. The demonstration of this capital fact was made by D'Arcet twenty-nine years ago.

Ten grammes of a solution of gold were injected into the jugular vein of a dog; ten grammes of putrid serum, exhaling an infectious odour, were introduced forty hours later, and in the same manner. The animal died six hours afterwards, with the ordinary symptoms of putrid infection. At the autopsy, the lungs, instead of being simply congested or ecchymotic, presented numerous lobular obstructions, of which some (six in number) contained pus, whereas others showed a less advanced state of the inflammatory process.

From his series of experiments, D'Arcet concludes "that purulent infection is a complex disease, comprising two well-marked series of phenomena, but which are so much united and so intimately connected with each other, that they have been confounded up to this moment. These phenomena are—1. A local mechanical obstacle in the capillary circulation, due to the introduction of bodies into the vessels not in harmony with their volume or use. 2. A general state, of a very serious nature, presenting all the characters of adynamia, and caused by the development, *sui generis*, of putrid matters in the organism, probably acting like ferments—that is to say, able to produce such modifications in the blood that the initial deleterious action persists and continues under its influence."

"I have cited these passages of D'Arcet not only to support my own opinions, but also to render justice to an author who should be regarded as the true creator of the modern theory of pyohæmia. Very little was wanting to this physiologist to arrive at the complete truth—to isolate, first of all, septicæmia from pyohæmia; to believe no longer in the necessary connexion of this latter disease with suppuration; and, lastly, to draw from the above-cited experiments these heretic, subversive, paradoxical conclusions, which I lay before you without hesitation:

1. There exists no necessary relation between the outer and metastatic suppurations; there is simply an habitual coincidence, but no necessary dependence.

2. Pyohæmia involves pyogænia in effect, but not in cause; or, in other words, purulent infection ends in suppuration, but does not arise from it.

(*To be continued.*)

ORIGINAL COMMUNICATIONS.

ON PUERPERAL FEVER.(a)

By Dr. EDWARD MARTIN,
Professor of Clinical Midwifery in the University of Berlin.

Since I had the honour of reading to this Society, in 1860, a Report on an Epidemic of Puerperal Fever, wherein I put forward the view that this disease depended upon a diphtheritic process set up in the female genital organs, I have omitted no opportunity of expanding and settling this doctrine; but if I venture to bring the subject again before you now, it is that I am impressed by the conviction that one reason why the views of this disease are still so divergent is, the confusion produced in the statistical reports by their comprising all the febrile diseases of lying-in women under the same rubric. Febrile conditions may be met with in lying-in women as well as in non-pregnant women, whether as a consequence of inflammation in almost any organ (but which has no connexion with the puerperal condition) or in connexion with various contagious diseases, as scarlatina, variola, etc. There may even be febrile affections consequent upon inflammatory action in the genitals of lying-in women, but which are essentially different from puerperal fever in the alarming sense of the word. Entirely unconnected with this, lying-in women may have very severe fever from inflammation of the breasts or nipples, after contusion or laceration of the uterus or vagina, as well as consequent on abscesses or ulceration which may ensue upon effusion of blood into the connective tissue. Such fever neither in its course, symptoms, or issue, resembles the conditions which arise from the diphtheritic process; and it is this which should be regarded as the essential characteristic of puerperal fever. Even the existence of thrombosis is not as a matter of course to be attributed to puerperal fever, as in many cases this remains entirely isolated, as contrasted with the thrombo-phlebitis which accompanies or follows the diphtheritic process.

Limiting in this way the conception of puerperal fever, the question naturally arises—What are we to understand by the "diphtheritic process"? You are aware that recent investigations have thrown most important light on the nature of diphtheria affecting other organs—especially the pharynx, where it has been shown to consist of a fungous formation, the spores of which are seen under the microscope to penetrate not only into the tissues, but within the bloodvessels—producing in this way a generalised disease. In diphtheria of the genital organs investigations have as yet not been extended

(a) Translated from the *Berliner Med. Wochenschrift*, 1871, No. 32.

thus far, and it remains a question calling for farther examination. Admitting, however, that the diphtheria is here due to a fungous formation, other questions arise. Is the fungus in question specifically different?—since we are familiar with various fungi which germinate in the vagina of both pregnant and non-pregnant women without giving rise to any dangerous affections;—is the fungus the mere carrier of the contagium? or is the puerperal fever produced in consequence of the special condition of lying-in women favouring the production of certain fungi, by reason of changes taking place in the organic substances and fluids?

Leaving these considerations, we may next advert to an examination of what the macroscopico-anatomical basis of puerperal fever is. In the majority of cases we find on the external genitals and the vagina a diphtheritic deposit covering those wounded spots which, in the form of larger or smaller lacerations of the mucous membrane, so frequently occur during labour. The circumference of these spots is more or less considerably swollen. In many cases the diphtheritic deposit is thus confined to the external genitals, and the disease pursues its course by casting off the deposit without any or with very little general disturbance. But in the majority of cases coming under Medical recognition, the diphtheritis is not confined to the entrance of the vagina, but is found deep within the canal, covering the large or small lacerations of the os uteri, and within the cavity of the uterus itself. Here it occupies both the site of the placenta and the upper paries of the organ; and it is sometimes found exclusively here, and in no places accessible to the eye.

It may be objected that in many autopsies of women dying of puerperal fever no diphtheritic deposit has been found. This is a fact which I have myself verified in several instances, in which not only have the symptoms been present, but careful examination of the patient during life has shown the presence of the deposit. In explanation of this apparent contradiction, we must not forget that the diphtheritic deposit in many cases very quickly disappears, and especially when injections or caustics have been employed, while its consequences may persist and undergo farther development. That we should not be able during life to see the diphtheritic deposit when within the uterus is conceivable enough, but the diphtheritic flocculi may be recognised in their expulsion with the returning uterine injections.

As a general rule, the diphtheritic process spreads rapidly from the genital organs, but it does so only rarely towards the skin of the thigh, nates, etc. These then exhibit an erythema (which has been well named puerperal scarlatina) or pass into ulceration. More frequently the diphtheria extends into the urethra or the rectum, if it have not already appeared there primarily; but its most common modes of spreading are either by means of the connective tissue surrounding the vagina and neck of the uterus, by the mucous membrane of the tubes to the peritoneum, or by the lymphatics and veins—these various modes of its extension being often combined with each other.

1. In the first of these modes, there is an infiltration of the pelvic cellular tissue, with a turbid serosity which extends to the peritoneal covering of the pelvic genital organs as far as the ovaries, there being usually also peritoneal effusion. This infiltration of the pelvic tissue may extend to the retro-peritoneal space, the kidneys, and the liver, and indeed even to the pleura and lungs; and after it has persisted for some time, it frequently gives rise to abscesses of the pelvic cellular tissue. By many authors this turbid-serous infiltration of the connective tissue is regarded as a primary occurrence, and a perivaginal or periuterine phlegmon is then represented to be the essential condition of the puerperal fever. This view I cannot accept, as it does not accord with the results I have obtained from observing cases from the first, since I have constantly seen traces of diphtheria preceding the turbid-serous infiltration. It is true that tumefactions in the vicinity of the cervix uteri may be present soon after birth, from other causes—as, *e.g.*, from contusion and effusion of blood into the connective tissue surrounding the cervix—and such swellings may also issue in abscesses. But we must distinguish these from those which are dependent upon the turbid-serous infiltration consequent on diphtheria, although in many cases the two conditions may be combined.

2. Another mode of spreading the diphtheritic process, which can scarcely be said to be of frequent occurrence, is along the mucous membrane of the internal genital organs to the peritoneum. In the cases of this kind which have fallen under my notice, I have often at the autopsies been able to follow the course of this usually rapid disease. In such cases, in which there was no other visible mode of propagation, the inner surface of the uterus was covered with a bloody-purulent matter, and the tubes (sometimes only one of these) were reddened, especially along their external third, dilated, and filled with a purulent mass, their fimbriæ being unusually swollen and reddened, and covered with or imbedded in fibro-purulent exudations. In these cases, usually a sudden attack of the pain peculiar to peritonitis (sometimes at first confined to one inguinal region) occurred on the second or third day after delivery.

3. The third mode of extension operates through the vessels, and most frequently through the lymphatics. Many of the dilated lymphatic vessels, and especially those of the uterus, are found filled with masses of white crumbly or fibro-purulent matters. Sometimes, when life has been sufficiently prolonged, there are also circumscribed collections of pus, which it would be erroneous to regard as abscesses. This extension through the lymphatic vessels is usually complicated by the serous infiltration, the so-called phlegmon of the connective tissue; and, almost as a general rule, one or both of the ovaries is infiltrated with serum, and penetrated by dilated lymphatic vessels containing firm white coagula or purulent fluid. In some rare cases the ovary becomes completely loosened in tissue, as if from shredding away. In this form of extension exudation is seldom absent in the cavity of the abdomen, sometimes chiefly occupying the coverings of the genital organs, and sometimes having no defined limits. Finally, in some cases the diphtheria is propagated through the vaginal and uterine veins. This is especially shown in those prolonged cases in which the the separation of the diphtheritic deposit from the genitals is followed by thrombosis of the veins, with its consecutive circumstances, such as breaking up, emboli, etc. Peritoneal exudations may also be met with, but not ordinarily. That the phlebo-thrombosis of lying-in women may, however, arise in other ways, quite independently of any diphtheritic process, needs only to be mentioned.

In these various but frequently combined modes of extension of the diphtheritic process of the genital organs, the great glandular organs of the abdomen, the kidneys, liver, and spleen are soon implicated, so that they are usually met with in a state of parenchymatous inflammation; and finally, the lungs, especially at their lower lobes, not infrequently exhibit the turbid-serous infiltration, pleuritic exudations being also associated with the peritoneal. A more infrequent result of the diphtheritic process, because in general a longer duration of the affection is required for its production, is inflammation of the peripheric cellular tissue, which may happen in different parts of the body. This most frequently occurs in and around the joints, around the muscles of the extremities (*e.g.*, in the pernicious form of phlegmasia dolens), or around some of the superficially placed glands, as the breast or parotid.

It is precisely this great multiplicity of local affections, and their combination with each other, that constitute the peculiar characteristic of puerperal fever. As, however, sometimes one and sometimes another of these occupies the foreground, we are furnished with the explanation of why different authors have come to regard these different local affections, whether peritonitis, phlebitis, lymphangioitis, phlegmon, etc., as the essential feature of puerperal fever.

Although, in regard to our knowledge of the etiology of puerperal fever, decided progress has been made in recent times, yet many points remain obscure. Thus, in relation to the admission that the disease is autochthonous—*i.e.*, that it may arise from the spontaneous decomposition of retained portions of the placenta—we must not overlook the fact, that remains of the placenta or membranes are not infrequently retained for days, weeks, or months within the genitals, without any putrid decomposition taking place, or any symptoms of puerperal fever appearing, while their presence often gives rise to repeated attacks of hæmorrhage. If, then, in numerous other cases the retention of such remains is followed by septic decomposition and puerperal fever, it is evident that some other circumstance has to be sought for which has determined this unfortunate occurrence. From the known influence of the air in exciting putrefaction in fermentable bodies, it results that decomposition of the retained remains of the placenta would be especially expected when these protruded from the os uteri into the vagina, while they would be more protected from the influence of the air when enclosed within the cavity of the uterus. And, in fact, in this last case putrefaction does much more rarely occur; but it must not be overlooked that the remains of the placenta are then more intimately united with the wall of the uterus. However, there are plenty of examples of the occurrence of puerperal fever, notwithstanding complete expulsion of the placenta; and in such cases we must seek for

other causes. Numerous cases have proved to me that women who are delivered while the subjects of recent gonorrhœa frequently become affected with puerperal fever, the diphtheritic process being immediately set up, and proving difficult of arrest. I must therefore admit that a preceding inflammatory condition of the mucous membrane of the genital organs stands in a certain relation to the occurrence of the diphtheritis. In the great majority of cases, however, the germ of puerperal fever gains access in other manners; and this is very positively shown by the well-known fact (confirmed by the numerous figures of the Vienna Lying-in Hospital, as also by the results observed in my own clinic, that the so-called street-births (*Gassengeburten*) are scarcely ever followed by puerperal fever. The transport of the diphtheritic germs takes place beyond all doubt very frequently during labour, more rarely after delivery, and sometimes shortly prior to parturition. In what the transported germ consists is less made out. Experience has taught us that cadaveric products and decomposed animal substances place puerperal women in danger, especially when an internal examination is made by fingers that have had to do with dead bodies without having been afterwards cleansed—although Practitioners may also convey the disease who have observed care in washing. The dead bodies in question have not always been those of the subjects of puerperal fever, although these entail a greater degree of danger. Again, certain secretions from suppurating wounds and ulcers conveyed to the genitals of a puerperal woman may give rise to diphtheritis. The epidemic prevalence of puerperal fever in Berlin during the winter of 1870-71 may with strong probability be attributed to the employment of so many of the civil Practitioners in the military Hospitals. Still more decidedly are diphtheritic products —which not infrequently are produced in scarlatina, typhus, cholera, suppurating cancer, etc.—dangerous to lying-in women. The most usual mode of propagating the diphtheritic poison from the sick to the healthy is its direct conveyance by means of sponges, dirty towels, catheters, clyster-pipes, or the fingers of the accoucheurs; and in this way epidemics of puerperal fever are brought about most frequently in Hospitals, although they are also met with in private practice. What relation this origin bears to an incubation stage is uncertain; for although Veit has observed this to vary between twenty-seven and forty-eight hours, the number of cases adduced are as yet too few to allow of any general statement being made.

Diphtheritis of the genitals is not only met with in puerperal women, although they—on account of the denudation of the mucous membrane of its epithelium, and the numerous lacerations of tissue, as well as the ready decomposition of the lochial secretion—exhibit a special predisposition for contracting the disease, while the dilated vessels present a favourable condition for generalising the affection. Paul Dubois, forty years since, observed that the pupils at the Maternité, who, while menstruating, tended sick puerperal women, also became the subjects of an affection resembling puerperal fever. In Germany similar observations have been published, showing that, under certain favouring circumstances, a similar diseased process may be set up in non-pregnant women. I remember the case of a woman, 52 years of age, who was admitted into the gynæcological clinic of the Berlin Charité on account of repeated hæmorrhage. This arose from a large crumbling myoma, for the removal of which I used a forceps which probably had not been properly cleansed after a former employment. The woman died of diphtheritis of the internal genitals fifteen days after the operation. The autopsy disclosed the same lesions as are found in women who have died of puerperal fever—viz., diphtheritic deposit upon the wounded surface whence the tumour had been removed, lymphatic vessels filled with pus, and peritoneal exudation. It would seem to result, from other cases, that this diphtheritic process of the genital organs in non-pregnant women is but rarely followed by dangerous general disease.

Finally, it may also be mentioned that new-born children, and especially those of women who are the subjects of puerperal fever, sometimes are the subjects of a similar diseased condition, which in them proves fatal.

Little need be said concerning the symptoms of a disease well known to you all. The elevation of the temperature is characteristic—this rising, except in the cases in which the diphtheritis is limited locally to the genitals, to an abiding height of 39° or 40° C., or even yet higher. The rapidity of the pulse is also very persistent, frequently remaining much more than 100. The general condition appears usually, at the commencement of the affection, to have undergone but little change; yet in many patients there is soon observed a peculiar death-like aspect, although consciousness is generally retained to the last. In some cases there is delirium, and in some rare instances maniacal paroxysms, the autopsies usually revealing no morbid changes in the brain. The diphtheritis itself is only visible to the eye within the vagina and as far as the os uteri, its presence within the uterus being discovered by the lochial fluid acquiring a peculiar smell, and by the discharge of diphtheritic masses on the re-issue of injections that have been thrown in. The features of the disease are in different cases essentially modified, according to the extension it has acquired. Very frequently the hypogastrium is painful on pressure in the region of the uterus, and tumefaction is here perceived both on external and internal examination. Such tumefaction, as already stated, may arise in puerperal women from other circumstances; and this is especially the case after laborious labours, effusion of blood having taken place into the cervix uteri or the cellular tissue surrounding the vagina. This hæmatoma may also, as well as the parametritis consequent on diphtheritis, pass into suppuration and give rise to pelvic abscess. The symptoms produced by the frequently ensuing affections of the intestine or bladder—peritonitis, pleuritis, phlegmon—call for no explanation.

With regard to the prognosis of puerperal fever in general, if we except the cases in which the diphtheritis remains localised, it is upon the whole unfavourable; for we must admit that one-third of the cases in which fever has ensued upon diphtheritis of the genitals terminate fatally. Death takes place most frequently up to the fifth day, and then up to the eleventh day. In some cases the disease may last even for months.

I have only a few words to say concerning treatment. The prophylaxis lays claim to our most earnest attention, and the etiology of the disease indicates many important points for the exercise of this. The extremest cleanliness of all having to render sevice to the lying-in woman, both as regards their persons and their clothes—especially their fingers and sleeves—and cleanliness in regard to all clothing, catheters, sponges, enema-pipes, etc., must be most stringently insisted upon. It is very much to be desired that all the utensils of labour should be new for each woman, and the same elastic catheters should never be employed for several lying-in women. As mere washing the hands which have become contaminated with infectious matter does not seem to afford sufficient security for internal exploration, I think it best under such circumstances to rest satisfied with external exploration. Especially does this rule apply to lying-in Hospitals when cases of diphtheritis have appeared; and my own experience on this point entirely confirms the propriety of the advice given by Halbertsma and Litzmann. How necessary, then, is that complete practice of external exploration which I have taught since I first held the Professor's chair, speaks for itself. Lastly, in regard to the curative treatment, I can only refer to what I have already stated in a detailed communication which I presented to this Society on "The Treatment of Puerperal Inflammations of the Female Sexual Organs."(b) It must be pre-eminently symptomatic, and, as long as the temperature continues high before all things the fever should be diminished. Internally digitalis with nitre or acids, and externally tepid or cold applications, contribute to this end, after due evacuation of the bowels has been secured. I cannot speak so well of quinine as do many authors. Local treatment has during the last ten years rightly been much tried. Cleansing out the vagina by syringing and injections of tar- or creasote-water, with carbolic acid, chlorine, or solution of nitrate of silver, has without doubt proved of great utility, even although it has not often happened that the process has been cut short by their agency. Injecting the same substances, suitably warmed, through a large catheter *à double courant* into the cavity of the uterus has sometimes been followed by a considerable diminution of temperature, as well as cleansing out the uterine cavity; but a decided general improvement has been by no means of such frequent occurrence as might have been hoped.

EXTIRPATION OF THE ENTIRE PAROTID.—In the *Deutche Klinik*, 1871, No. 37, is given a detailed translation from the *Sperimentale*, of the total extirpation of the parotid, by Professor Marcacci, of Sienna, the divided carotid at its temporal end, and several other vessels, being tied during the operation. The ligature around the carotid only came away three months after the operation, but the wound had cicatrised, with the exception of the aperture for this, long before.

(b) *Monatsschr. f. Geburtskunde*, Band xxv., pp. 85-106. 1865

TWO WELL-KNOWN SYMPTOMS OF PHTHISIS—REMARKS ON THEIR EXPLANATION.

By Dr. F. A. HARTSEN.

Much has been written upon, and still more spoken of, a certain sound—so unwelcome to the Physician, so importunate to the invalid by its tick, tick, tick, in the silence of the night. In spite of many hypotheses, the "cliquetis métallique" of lung cavities (for this is the pathological music to which I allude) is enveloped in a cloud of mystery. Some try to explain it as the effect of a drop falling from the top to the bottom of the cavity; others attribute it to the bursting of a bubble.

The first explanation, to my mind, is entirely unsatisfactory. The sound in question is heard in cases even where the fluid contained in the cavity is of a viscous nature. Now, it would be contrary to all rules of acoustics, that a drop of viscous matter—even if the formation of such a drop in a cavity were probable—falling from so slight an elevation upon a viscous surface should produce a ticking sound. As to the second hypothesis, it evidently represents the "metallic sound" as a kind of "râle crépitant" on a large scale. It, however, is insufficient, so long as it has not been proved experimentally that a metallic sound can be produced by a bubble of viscous matter.

This objection cannot be made to a new hypothesis which I would offer to the judgment of competent readers. It has often occurred to me that a sound, exhibiting a remarkable analogy with the "cliquetis métallique," may be produced in this manner: two surfaces of a mucous membrane covered by a small quantity of viscous matter are brought into contact, and afterwards separated. The sound is detected at the moment of separation. Such will be the case, at least, if the said mucous membrane is sufficiently stretched and has the opportunity of communicating its vibrations to a trumpet-like column of air. So, for example, the metallic sound can be imitated by the surfaces of the nostrils, and especially by the corners of the lips.

I conclude, by analogy, that most probably this mysterious "cliquetis métallique" is produced by the linings of the cavity losing their hold upon each other, after having been partly brought into contact by the movement of respiration. As no cavity is limited on *all* sides by bony matter, there is always an opportunity for the re-connexion of these linings.

Another pathological symptom, of which I wish to discuss the explanation, is the anti-æsthetic hooked appearance of the nails. Dr. Taylor, if I am not mistaken, attributes this to a process of tuberculisation in the root of the nails. I do not consider this phenomenon of such a serious and complicated origin.

By careful observation, we shall find that the shape of the nails varies with the state of the patient's nutrition. If he regains flesh, the nails gradually recover their normal shape. It seems to me that an abnormal growth of the nails is simply a symptom of emaciation.

The disappearance of the conjunctiva from under the nail deprives it of its natural support. It must henceforth rest almost immediately upon the bone as upon a model, and is obliged to follow the direction of its surface. This surface being rounded at the top, the nail takes a direction downwards. If my memory fail not, the late Professor Niemeyer has explained this phenomenon by the absorption of the substance under the nail.

In one case of phthisis under my observation, I remarked another particularity which has been, perhaps, hitherto overlooked. It is this: if you allow the nail to grow, its breadth, far from being the same in all parts, increases gradually towards the top—in fact, the nail assumes a cuneiform or conic shape. This curious and equally unæsthetic phenomenon confirms my explanation of the former; for this is evidently owing to the disappearance of the supporting conjunctiva.

As the surface of the phalanx bone is more or less flat on the outside, the disappearance of the conjunctiva causes the nail to be flattened. And as the disappearance increases by degrees towards the top of the finger, the flattening of the nail will increase in the same way. Consequently, the nail from cylindrical will become conic.

To me, it appears that this nail phenomenon is more apparent in the toe-nail than in the finger-nail. If this be the case, it is in accordance with my (Niemeyer's?) explanation. For it is to be expected that, the nail being farther removed than the hands from the great source of nutrition (the heart), they will more quickly suffer from every decrease of nutrition. In fact, "cold feet" is a more common complaint than "cold hands."

One more remark in conclusion. If this explanation of crooked nails be, as I think, the correct one, it is clear that this phenomenon has no importance whatever as a diagnostic for tubercles, but must occur in every form of emaciation. Observation must decide if this be really the case.

A very rapid growth of the nails and hair seems to belong equally to the symptoms of emaciation. This, however, may be generally known, and I do not attempt to explain it here.

REPORTS OF HOSPITAL PRACTICE

IN

MEDICINE AND SURGERY.

ST. MARY'S HOSPITAL.

CASE OF OBSCURE RHEUMATIC FEVER, WITH HEAD SYMPTOMS—CLINICAL REMARKS.

(Under the care of C. HANDFIELD JONES, M.B. Cantab., F.R.S.)

L. B., aged 24, single; admitted October 6, 1871. Was taken ill October 1, with severe shiverings, which lasted several hours; they were succeeded by pains in all her limbs and head. Has had rheumatic fever twice before; the last attack was three years ago. She complains at present of pains in loins and hands, but none of her joints are much affected; there is no notable inflammation. The sister reports that soon after she came into the ward she walked several steps alone. Her aunt states that she used to suffer much from rheumatic pains in the feet, and applied cold cloths to them for relief. A systolic murmur at the apex of the heart is very marked; it is heard both inside and outside the nipple-line loudly; good breathing in both backs. Pulse 102, small and weak; tongue coated; no appetite.

October 7.—Bowels well opened by podophyllinæ gr. j.; is taking mist. potass. citrat. ʒjss., and pot. iod. gr. j. + pot. bromid. gr. v. 2dis horis, pt. mist. 4tis horis.

8th.—Last evening she felt stiff and painful all over; if she raised her head felt giddy and faint. In the night she was quite stupid, anxious, tremulous, and delirious; her respiration was short and sniffing. This morning she looked wildly about her; appeared very anxious; her lips were tremulous. Temperature at 10.30 a.m. 103°.

9th.—At 11 a.m., temperature 103·6°; at 2 p.m. 105°; still seems nervous and anxious; sighs; does not attempt to feed herself, but takes nourishment well; both radial pulses compressed by 134 grammes; forehead not hot; knits her brow; is rational now; says she has got such a cold; tongue coated, and rather dry; urine red, clear, neutral, copious, not albuminous. Acidi nitrici dil. mxv. + aq. ʒj. 2dis horis; chloral gr. xv. + liq. morph. bimec. mx. + aq. ʒj. h. n.; port 4 oz.

10th.—Better night, slept a good deal; respiration quiet; temperature 104·8°; pulse 140; great thirst; seems to suffer pain when right iliac region is pressed; some suspicious typhoid spots on abdomen; acid enters both lungs posteriorly fairly well.

11th.—Temperature 104·7°; pulse 135, excited; is tolerably rational; hands tremulous; has an eruption on arms and legs consisting of small red spots scattered over the surfaces. Ammon. carb. gr. v. + tinct. cinchon. ʒj. + dec. cinchon. ʒj. 4tis horis.

12th.—Eruption rather increased; on abdomen there are some dull red spots, and some subcuticular diffuse brownish discoloration.

13th.—Died this morning at 2.35 a.m.; sank gradually. She was conscious till about 11 p.m., but her sight failed quite early in the evening. Her face looked swollen and spotty. All her evacuations were passed in bed the last day. The motion was very offensive, clayey, and light-coloured.

Autopsy.—Remains of a spotty dull-tinted eruption on face; some spots also on abdomen. Much hypostatic congestion of trunk. Left lung pushed aside by heart. Pericardium contained some serous fluid, slightly reddened by blood, which blued reddened litmus very slightly; nothing like so much as eczema serum or nasal catarrh fluid does. In a case of acute phthisis soon after, the pericardial fluid gave the same reaction as in this. Right lung weighed twenty ounces, left sixteen ounces. Upper lobe of left lung intensely congested, blackish,

and softened; rest of this lung tolerably healthy. Right lung a good deal congested at back; quite apoplectic in some patches of lower lobe. Heart weighed sixteen ounces; there were numerous spots of white patching on its anterior surface, and on the parietal pericardium there was a notable amount of whitish recent lymph. The mitral flaps and their cordæ tendineæ were thickened, and at one spot there was a vegetation, which seemed to be of some standing, and inclined to disintegrate. Aortic valves healthy. The right ventricle was filled with colourless coagulum, which extended as a solid strand into the pulmonary artery as far as its bifurcation. The right auricle contained only black clot, filling, but not distending it. The left ventricle also contained a large decolorised coagulum. The spleen weighed twelve ounces, was soft, but apparently healthy. The kidneys weighed together sixteen ounces and a half; were large, pale, with spots and patches of congestion. In the lower part of the small intestine the solitary glands at some places were found reddened and notably enlarged; but Peyer's patches were quite unaffected. The right knee (the only joint examined) contained some thickish opaque gelatinous synovial fluid, which under the microscope showed multitudes of well-formed pus corpuscles. In the pia mater of both hemispheres there were a few minute whitish spots, situated on the fore part of the convex surface. One of these consisted of corpuscles and granular matter, and had quite the appearance of tubercle; another larger one, which seemed to be made up of three or four small ones grouped together, was less definite in structure, but in parts resembled tubercle a good deal. On the outer side of each hemisphere there was a large patch of sanguineous extravasation, the pia mater being infiltrated with blood; but there was no capillary apoplexy nor breaking down of the brain substance by clot. The patch on the left side was the larger.

Remarks.—The phenomena in this case were hard to read aright. The history of two previous attacks, and of recent rheumatics in the feet, the presence of a mitral murmur and of pains in the hands, were insufficient to make the diagnosis clear during life. But the discovery at the autopsy of a little recent fibrine on the pericardium, and of a few drops of puriform fluid in one knee-joint, go far to establish it. The opinion was expressed at the bedside that the case was one of those of rheumatic fever marked by very high temperature and cerebral symptoms ending fatally, of which several are now on record. This was not precisely verified, as the patient did not die in coma, but chiefly in the way of asthenia, the circulation being brought to a standstill by the fibrinous coagulum which filled the right ventricle. However, the main point—that the case was one of rheumatic fever—seems established, and the peculiarities it presented related to the absence during life of evident articular inflammation, and to the existence of fever of a typhoid character, and of severe cerebral symptoms. It seems that the unknown cause of acute rheumatism in this instance affected the articulations and heart but slightly, and spent its chief malignity on the regulating temperature-centres, the hemispheres, and certain vaso-motor nerves. The effusions of blood into the pia mater and lung tissue indicate a weakened state of capillaries—a state very much the same as that existing in purpura, and like it many instances associated with, and probably dependent on, loss of power in the vasal nerves. The cerebral symptoms, stupor, anxiety, and delirium seem to have been rather the immediate results of the general morbific agent than of the extravasation in the pia mater, which took place probably at a later period. The cerebral tubercles were quiescent, and took no share in the morbid process. The possible dependence of the phenomena on blood-poisoning derived from the disintegrating fibrine on the mitral valve has been considered, but seems to be negatived by the absence of any fibrinous deposits in the viscera.

MEDICAL COLLEGE HOSPITAL, CALCUTTA.

TRAUMATIC ANEURISM OF THE POPLITEAL ARTERY.

(Under the care of Dr. FAYRER.)

W. R., EUROPEAN, aged 32 years, a healthy, muscular young man, of temperate habits, and who has been about ten years in India, was admitted into the Hospital at 9 p.m. on August 3, 1871, with symptoms of traumatic aneurism of the left femoral artery, just above the knee.

It appears that about seven weeks ago—he thinks it was on, or about, June 18—when in the railway station, his attention being suddenly attracted by the passage of an engine close to him, he walked (having turned his head, without seeing it) against an iron rail that was projecting from the place on which it rested. He felt that he had sustained a severe blow on the lower and inner aspect of the left thigh, which came in contact with the rail; the pain was severe, but it soon passed away, and he resumed his occupation. For a week he felt little or no pain, but the lower part of the thigh then began to swell, and to have deep-seated aching pain; for this he applied liniments, lotions, and fomentations. It disturbed his rest at night, and caused him much uneasiness; but still he continued to do his work as a foreman, until July 3, when the pain and swelling increased so much that he was compelled to lay up in bed, for he was no longer able to stand. The swelling appears to have been regarded as an abscess, for poultices and leeches had been applied, but without relief. The swelling continued to increase; the leg swelled, and became numb. His account of his sensations is not very clear, but he appears to have suffered much pain of a burning character, as well as that due to distension and swelling, with what he describes as a benumbing sensation throughout the limb below the knee. On July 27 he sought relief by admission into the Howrah Hospital. Three or four punctures with exploring needles, or a small trocar, were made, but only dark blood escaped. The swelling continued to increase. The leg and foot became œdematous; a sense of numbness in the leg, and a burning sensation in the swelling, caused him much distress. I saw him on August 3 with Dr. D. B. Smith; the leg and foot were swollen and œdematous, and colder than the other leg. He was in bed, with the limb slightly flexed at the knee, and resting on a pillow. There was an oblong oval swelling, commencing just above the inner side of the left knee, which extended upwards for about seven or eight inches, and transversely about five to six inches. It had a somewhat livid appearance, especially in certain patches. There was distinct fluctuation; it was elastic and tense, but there was not the faintest pulsation or thrill. It was considered to be rather rapidly increasing. The leg and foot, I have said, were œdematous and colder than the other limb, but the circulation was evidently well kept up, for there was no sign of gangrene, and he could feel perfectly in every part that was touched. Neither anterior nor posterior tibial arteries could be felt, but their pulsation in the opposite limb was unusually faint. The pain was so severe as to have rendered the use of morphia frequently necessary; and either this or the constitutional disturbance had induced irritability of stomach, and a somewhat icteric tinge of skin and conjunctivæ. His health, originally good, seemed worn by suffering and confinement. I stated my opinion that the tumour was due to the presence of blood; the question of a deep-seated abscess was discussed. A small incision decided the question. A quantity of black clots were turned out of the cavity, and a warm gush of blood against my finger, on disturbing the clots, left no doubt as to the nature of the swelling. On passing the finger deep into the wound, the femoral could be felt pulsating distinctly, and it was much thickened. The finger came on the artery just where it became popliteal, having passed through the opening in the adductor magnus. I withdrew my finger, and applied lint compresses and a bandage until measures could be taken for more effective treatment. In consultation with my friends Dr. D. B. Smith and Professor Cutcliffe, it was decided to remove him to the Medical College Hospital, where he would have advantages, in the way of the attendance of dressers and nurses, that were not elsewhere obtainable. He was easier after the puncture and evacuation of clots, and he reached the Medical College Hospital safely; a slight oozing on the way, however, rendered it necessary that immediate operation should be resorted to. With the assistance of Drs. Smith and Cutcliffe, Baboo Ishen Chunder Roy, the resident Surgeon, my House-Surgeon, Baboo Soorjee Coomar Chuckerbutty, and the dressers, I laid open the tumour by an incision in the course of the femoral artery, about seven or eight inches in length, and, turning out a quantity of clots, a jet of warm blood soon indicated the breach in the main artery, just where it lies near the bone, as it becomes popliteal. The opening in the artery was quite obvious—it was oblong, and involved at least two-thirds of its calibre; the inner coat of the vessel could be seen on that portion which remained intact. The artery was tied above and below the wound. No trace of the femoral vein could be found, but the tissues surrounding the artery and its sheath were so much thickened that it was considered that the obstructed vein probably was included in the thickened mass. The femur was also exposed for a short extent in a situation corresponding to the breach in the artery. The interior of the large cavity formed by

the clots was ragged and discoloured with dark blood; the tissues were condensed and matted. The breach in the artery could not have been less than a half or three-quarters of an inch in length. The distance between the ligatures was fully an inch and a half. The lower end was the most difficult to ligature. The cavity having been carefully cleaned out and washed, and all bleeding having ceased, the wound was brought together and dressed antiseptically; the leg was enveloped in cotton and a flannel bandage. The artery was so well compressed at the groin that very little blood was lost. Immediately after the operation his pulse was 96; temperature in axilla 101°, left foot 99°, right 98°, at the groins equal, 100°. As his stomach was irritable, an opiate enema was given.

August 4.—9 a.m.: He is doing well. Had some sleep; Pulse 96; temperature in axilla 101°, left foot 100°, right foot 99°. Slight oozing from the upper part of the wound, but merely a sero-sanguineous fluid. 7 p.m.: Skin moist; is still nauseated, he says, from the morphia and chloroform. Bowels have acted freely. Looks bilious; eyes yellowish; no pain; great relief to the limb since the operation. Temperature of left foot 101°, right 100°. Effervescing draughts, with hydrocyanic acid. He is in excellent spirits; feels so much better.

5th.—Slept well; slight coloured oozing from the wound. Pulse 92; temperature in axilla 101°, right foot 99°, left foot 100°. Is still inclined to be nauseated. Conjunctivæ tinged yellow. ℞. Hyd. chlorid. gr. vi., pil. coloc. co. gr. vi., st. s. Effervescing draughts; changed the dressing. 12 p.m.: At midnight, when his bowels were acting, as he strained, hæmorrhage began. I saw him soon after, and found that he had lost very little blood, but it was evidently necessary to interfere. Opened out the wound, cleared out a considerable quantity of clot, and found that the bleeding was rather free from the lower end of the artery as well as from some collateral branches. The ligature had separated from the lower end. The upper end of the vessel was not bleeding, and it could be seen and felt pulsating in the wound. The other ligatures had separated and lay loose in the wound. The tissues had been so much softened that they would not hold. The wound itself looked quite healthy. The upper end of the divided artery was evidently closed by a clot. No bleeding occurred from it whilst the wound was open, and the lower end was again secured by a ligature. Several new points also had to be ligatured. The hæmorrhage was soon checked, very little blood having been lost. The wound was again dressed antiseptically, but was not closed with sutures. During the proceeding I ascertained that part of the femur was denuded of periosteum; the bone exposed was smooth and white, probably not yet necrosed. The patient was restless, and suffering from nausea; his pulse was quick, and his skin cool and moist, though it and the conjunctivæ were still tinged with bile. During the day, especially after taking food, he had vomited bilious matter. I took this opportunity of trying to find the femoral vein; it was evidently consolidated in the thickened tissue of the arterial sheath. The left foot and leg were 101°. The circulation has evidently been completely re-established in the limb.

6th.—He is doing fairly; slept after the operation; bowels have acted again. Temperature of leg 101°; no pain. Stomach less irritable, but he still suffers somewhat from nausea. Repeat the effervescing draughts. Let him have champagne and beef-tea. Sinapisms have been applied over the hepatic and gastric regions. An opiate enema was given after the operation. Pulse good; temperature normal; skin moist. He looks altogether better.

7th.—Has diarrhœa; vomited several times, and did not sleep well during the night; pulse 112; has pain in the left side of the chest; conjunctivæ less yellow; temperature of right foot 98·5°, left foot 99°. 6 p.m.: Diarrhœa continues; vomited several times, but took a fair amount of nourishment; pulse quickening. 120; says he feels better; no bleeding; tongue clean; the ligature in the lower end of the artery separated, and was reapplied for the third time by the House-Surgeon; temperature in axilla 101°, right foot 99·5°, left foot 99·5°; temperature of limbs now equal; all swelling and numbness gone.

8th.—Had several loose bilious motions last night; slept a little; vomiting ceased; complains of dryness of the throat, but says, though weak, he feels much better; pulse 92, rather feeble; no fever; says he feels uneasy in the chest; breathing good, respiration rather harsh.

9th.—6 a.m.: Pulse 130, full; is feverish; had many loose stools during the day; no bleeding; wound looks pretty well; temperature in axilla 101°, right foot 98·5°, left foot 100°. 6 p.m.: Pulse 124, full; still feverish; diarrhœa continues; complains of pain in the left chest; abdomen tympanitic; temperature in axilla 104·5°, right foot 101°, left foot 100°.

10th.—Pulse 128; diarrhœa continues in spite of astringents; did not sleep; is still feverish; tongue dry and clean; temperature in axilla 100·5°; feet 100°. 6 p.m.: Pulse 126, small; is very restless and thirsty; starts in his sleep; says his sight is failing; three loose motions during the day; tongue dry and clean; is slightly delirious; has had no rigor, nor ever complained of chilliness throughout his illness; extremities cold; respiration hurried and gasping; much perspiration; temperature in axilla 100°; feet 91°. 9 p.m.: Is very low; no pulse at wrist; respiration hurried, laborious, and gasping; extremities cold; delirious; nothing characteristic beyond harsh respiration was detected by auscultation or percussion except slight dulness. There was no swelling in the limb, the temperature natural, and perfect freedom from tenderness along the course of the femoral vessels. It was evident that he was sinking, and on going to the Hospital on the morning of the 11th I was told that he had continued much in the same state, except that the distress of breathing became more urgent, and that he died at 3 a.m. of the 11th. The wound for the last twenty-four hours had changed in appearance, and the deeper portions of it were covered with a sloughy film of a dark colour. There was no recurrence of the bleeding, though all the ligatures had again separated, and were loose in the wound.

Autopsy, August 11.—Thorax: Lungs congested posteriorly and in the lower lobes, œdematous throughout. They were united in many places by old adhesions to the walls of the thorax. There were no pyæmic patches in the lungs. Heart soft and flabby, not firmly contracted; a small white clot occupied the left ventricle, extending a short distance into the aorta; valves normal; inner coat of aorta somewhat rough—not atheromatous, but not having the appearance of perfect health; looked, as Dr. Chevers said, as though "it had been much worked." Right auricle contained a firm white clot, which passed into the ventricle, and was moulded in the auriculo-ventricular opening. This clot extended also into the pulmonary artery, plugging the orifices, and was drawn out in the form of a tree, with many branches forming its ramifications. Abdomen: Liver pale and fatty, but not otherwise diseased. The other viscera appeared normal. There was neither peritonitis nor symptom of any mischief in either iliac artery or vein. On dissecting out the femoral vessels, it was found that the profunda was given off very high (just under Poupart's ligament), and was enlarged. The vein and artery were closely adherent after entering Hunter's canal; they were closely matted together amidst thickened tissue. The coats of the vein were much thickened, its calibre diminished, and its lining surface roughened. Within it lay grumous-looking fluid; small clots protruded into it from collateral branches. Where the vein was injured, it also terminated abruptly, being closely matted to the artery; about the ends were some clots and inflammatory products. The artery was also shrunken and rough on its inner surface; no clot was found *in* it, but about the end where the ligature had separated there were clot and inflammatory products. The lower end being dissected out, presented a similar appearance; the tissues generally about the wound were matted together by inflammatory products. The bottom of the wound looked sloughy on the surface; the upper margins were healthy. The small portion of the upper end of the artery, included in the last ligature, lay loose in the wound, showing how brittle and diseased the parts had become. No further dissection was practicable, as the patient's relations were much opposed to any examination. The circulation had been thoroughly re-established, for the leg had returned to its normal size and temperature. I am convinced that this was the case before the ligature was applied to the artery. The femoral vein for some distance above, and probably below, the wound had been obliterated. The circulation, both venous and arterial, had nevertheless been re-established. About two inches of the surface of the femur looked dry and denuded, and probably would have exfoliated had he lived. There were no symptoms of osteo-myelitis. It is worthy of note that the weather, since his admission, has been most unfavourable—damp, warm, and oppressive to a degree; malarious influences most rife. He had no rigor, no fever; but during the last few days he looked depressed and his countenance was pinched. He emaciated rapidly, had frequent diarrhœa and vomiting of bilious matter. Indeed, since the operation, he had forgotten the leg in his other troubles. Death was due to blood-poisoning (the septic matter probably originating in the femoral vein). Fibrinous clots in

the right side of the heart were most probably the immediate cause of the apnœa which preceded and caused death. The condition of blood which gives rise to the formation of these fibrinous coagula was the result, most probably, of the septic condition produced by absorption of matter from the femoral vein and the evil influences of a peculiarly malarious season. Had the sudden formation of fibrinous coagula in the pulmonary circulation not carried him off, I have no doubt the usual structural changes seen in death from pyæmia here, in Calcutta, would soon have been manifested in the lungs, pleuræ, and elsewhere.

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Medical Times and Gazette.

SATURDAY, NOVEMBER 11, 1871.

THE HAMPSTEAD HOSPITAL INQUIRY.

The evidence in the investigation into the management of the Temporary Small-pox Hospital at Hampstead having been now brought to a close, we are at liberty to offer our readers some remarks on the wearisome details which have lately occupied so much of our space. The verdict which the Profession and the public will ultimately form on the subject is, of course, of the highest importance—not merely to Dr. Grieve and the three Assistant Medical Officers, who may be said, in some degree, at least, to have staked their Professional and social prospects and their character for veracity on the proceedings—not merely to the Sisters of East Grinstead, who bravely devoted themselves to the repulsive task of nursing all comers through the most disgusting of maladies, but to all who lack in their own homes facilities for careful nursing and segregation when those homes are invaded by contagious diseases—not only to the pauper-classes who are supported by rates, but to persons of a higher grade, whom, for the safety of others, or under the pressure of circumstances, it may be advisable to remove from their homes when struck down by a communicable malady.

It is well that the confession should be made. This investigation arose in the first instance out of a quarrel. There were differences between Dr. Grieve and his subordinates; there were charges of insubordination and counter-charges. Dr. Grieve was not satisfied with the conduct of the Assistant Medical Officers. Representations were made to Mr. Wyatt and to the Hospital Committee. The subordinates were dismissed—ostensibly because there was no longer necessity for their services, but really because the Committee were not pleased with the manner in which they had conducted themselves. The subordinates naturally demanded an investigation, which was refused by the Hospital Committee, on the ground that Dr. Grieve had refrained from bringing formal charges against them, whereupon they wrote their now notorious letter to the *Times* newspaper, bringing specific accusations against the Hospital, out of which accusations this inquiry has arisen. There can be no doubt that had Dr. Grieve and the Assistant Medical Officers been on good terms, or had he adopted the wise plan of obtaining from the Committee the power of enforcing his authority on pain of instant dismissal, we should never have heard of the Hampstead Hospital Inquiry. The truth is, Dr. Grieve does not appear to have had the necessary powers for maintaining discipline, and it is needless to say that without discipline the hastily constructed organisation over which he presided would assuredly get out of gear.

There is, however, another light in which to look at the matter. The charges made against the Assistant Medical Officers may or may not have been true, but they were evidently believed by certain of the authorities of the Hospital; for Mr. Wyatt, when the management of the Hospital over which he presided was impugned by the Assistant Medical Officers, had the singularly bad taste to write a letter to the *Times*, wherein he accused them of drinking too much beer and of indulging in rat-hunting. We do not know how far these amusements led to the dismissal of the Assistant Medical Officers; but, as Mr. Wyatt thought these matters of sufficient importance to offer them as an answer to the charges of neglect brought against the Hospital, we presume that they had some weight with him when, on July 24, he recommended the Committee of which he was chairman to dismiss Mr. Greaves and Mr. Kynaston. For his own part, he does not scruple to say that, in fact, "they were dismissed because their conduct was insubordinate and they showed no zeal for their duty." This may or may not have been the fact; but if this were the real reason of their dismissal (and we have Mr. Wyatt's word for it), we maintain that they were most unfairly treated when they asked for the inquiry into their conduct, which was refused them.

But, putting aside the squabbles between Medical officers and the questionable (to use Mr. Gladstone's phrase) line of conduct pursued by the Committee, the issue now arises whether it was for the good of the public and the Profession that this inquiry should be held. We answer, "Undoubtedly," for two reasons. First, because it shows how unprepared London was to meet a great epidemic; and, secondly, because it proves how dangerous it is to trust the charge of an enormous Hospital to a merely voluntary Committee—to a small staff of resident and cheaply paid Medical officers, who were the mere servants of the Committee, their duties being supplemented by an occasional visit from a Poor-law Medical Inspector. The charges were (1), that delirious patients, more particularly children, were tied down to keep them in their beds at a time when their bodies were covered with the small-pox eruption; (2) that strait-waistcoats were used for the same purpose; (3) that patients in an acute ward, in the height of the disease, had been provided with a most inadequate supply of milk and fluid during the night; (4) that patients on low diet were kept without food from 7 a.m. until 3 p.m.; (5) that complaints were continual regarding the unfitness of the food supplied; (6) that through the totally inadequate number of nurses, children had been found dead in bed, and the nurse ignorant of the fact; and (7) that the body of a patient who died at midnight had been removed into the bath-room, where it remained all night in a most offensive condition. There were other charges, but these were the chief; and the Medical Superintendent, Dr. Grieve, was pointed at as being responsible for this alleged condition of things.

Now, these charges were all proved by a certain number of witnesses. With regard to the first, the practice has been defended on high Medical authority, and, to say the least, it becomes absolutely necessary when nurses are few. Of the second the same may be said. With regard to the third, whatever some patients may have found, others came forward in

numbers to say that they had not enough milk at night. It was proved that, at least in one instance, patients on low diet were kept for some hours without food; whatever the butcher who supplied the meat may say, it is undoubtedly a fact that some patients did not find the meat tender or palatable. It cannot be disputed that more than one child died in bed without the nurse of the ward being aware of the fact; and it was also proved that a dead and offensive body was allowed to remain during part of a night and day in the bath-room. It cannot, therefore, be said that these charges were unfounded. Moreover, in the inquiry it has been proved that there were lice in the Hospital, else how did the joke about the Hampstead donkeys arise? Clean linen was not at all times plentiful, and eggs and extras were not always supplied directly they were ordered. We know enough of Hospital patients and of the working of the Hospital system to be surprised at many of these complaints. Ten years ago a book was published by a gentleman of some literary pretensions, entitled "Two Months in a London Hospital." In consequence of an accident he was compelled to pass that space of time in one of our metropolitan Hospitals; and although he was not at all unmindful of the benefits and kindness he received, his book contains a number of specific complaints. He tells his readers that had he been compelled to live on the Hospital diet alone he should have sunk; that the Hospital contained no proper apparatus for a particular injury; that gin was given to the patients instead of wine; that a patient was allowed to bleed to death; that the nurses had favourites, and joked cruelly and thoughtlessly with weak patients; and makes many other complaints which prove that even a presumably well-managed Hospital of high repute is no pleasant place for a well-educated and sensitive sick man. But, making allowance for the querulousness of some patients, and the miseries and annoyances almost unavoidably attendant on Hospital life, the conviction will force itself upon any person who attentively reads the evidence brought forward by the Assistant Medical Officers; first, that the organisation was not perfect; secondly, that the diet and general treatment, although they may have been on a par with that in workhouse Hospitals, was not of a kind in all the wards, and at all times, to suit the requirements of persons who had been accustomed to the comforts with which the lower middle-classes surround themselves in this country. The Hospital may have been fairly good for a pauper Hospital, but it was not suited for the reception of patients of various grades of society.

In his evidence, Mr. Wyatt frankly acknowledges the faults due to hasty organisation, the difficulty of getting servants, and the over-work imposed on Dr. Grieve. These may be excuses, but we doubt whether they are valid ones. Funds would not have been refused by the public for a more liberal management, had funds been wanted. The confession of hasty and imperfect organisation cedes the whole point at issue, for no one for a moment would suppose that the gentlemen who formed the Committee, the Sisterhood who undertook the nursing, and the Medical Superintendent of the Hospital were not actuated by the strongest desire to do their duty to the unfortunate patients committed to their care.

There are some lessons to be drawn from the present inquiry which should not be lost. The first and principal one is, that when an epidemic malady requires public effort to meet it, the organisation should be ready to hand. The Local Government Board may supply what is needful, but we have but little faith in voluntary committees and amateur inspection. The second is, that a public Hospital for infectious disease should at least have as good and independent a staff of Medical officers as a Hospital supported by voluntary contributions. Had one-half of the money expended in this inquiry, which will be paid for by the ratepayers of London, been expended in providing proper honoraria to secure the services of four Visiting Physicians, whose position in the Profession and in society would have made them entirely independent, this scandal could not have occurred, and a large sum of money would have been saved. Instead of which, the staff for a large Hospital of 500 beds consists of a Naval Surgeon, whose name has now for the first time come before the public, and three young men just out of their studentship. We have already spoken of the necessity of discipline and of powers being given to the Superintending Medical Resident. This is only a part of organisation; but there is a third lesson—which is, the necessity for more constant paid official Medical inspection of rate-supported Hospitals. Dr. Bridges, we believe, paid about six visits to the Hospital in the course of some months. Surely an official Medical inspector should have visited such an establishment once a week, if not oftener. Lastly, the system, or want of system, which classes paupers and decent clerks and tradesmen together in the same wards—making them use the same linen and towels, and undergo the same hardships and indignities—is manifestly a mistake.

It will be seen from what we have said that we think there was a necessity for the inquiry, and we cannot regret that it has taken place. We may hope that Mr. Simon's well-known abilities will be concentrated, in his new position at the Local Government Board, on introducing a more satisfactory organisation in public rate-supported Hospitals, and in providing the means of meeting more satisfactorily those epidemics from which England seems destined to be never long free.

THE CHOLERA AT SECUNDERABAD IN MAY, 1871.

Surgeon W. R. Cornish, the Sanitary Commissioner for Madras, has published an inquiry into the circumstances attending the outbreak of cholera among the 18th Hussars at Secunderabad in the month of May last. Our readers will remember that we commented on this remarkable epidemic from time to time as the earlier reports arrived in this country, and that in one of our numbers for September last we recorded the main facts of the outbreak, and observed at the same time the striking analogy between it and the instance reported by Mr. C. Macnamara in his work on Cholera, of a virulent outbreak of cholera of short duration, which occurred among a small community by whom water contaminated by cholera excreta had been used for drinking purposes. Although the Sanitary Commissioner for Madras did not succeed in tracing link by link the chain of evidence, which alone could have established the connexion as a scientific fact in the instance under investigation, between the use of polluted water by the men of the 18th Hussars, and the outbreak of cholera among them, he evidently entertains the opinion that it is only in this way that all the circumstances can be accounted for. With true philosophic caution, however, he merely enounces among his conclusions on the subject that the Hussar Regiment, so far as is known, differed only from the other European troops, among whom no cholera had occurred, in using water from a public well that was liable to receive extraneous impurities, and that the actual fouling of the wells used by the Hussars with cholera matter, though exceedingly probable, cannot be directly proved.

We find from Mr. Cornish's report that the epidemic of cholera, which in 1869 moved southward from the central provinces over a large portion of Southern India, had quite disappeared from Secunderabad in August, 1869, after having been very fatal in Hyderabad and in the Secunderabad Bazaar, but having caused only a few cases among the European troops, and none whatever in the 18th Hussars. Up to the date of the recent outbreak, not a case of cholera had been known to occur anywhere within 150 miles of the cantonment of Secunderabad. Early in January, 1871, however, there had been indications observed that, after occupying the extreme south of the peninsula and Ceylon, the cholera-wave had begun to travel northwards again along the western coast, and also in the centre of the peninsula. This being the first opportunity

which he had had of studying such a reflux of cholera, Mr. Cornish of course watched the progress of the disease with great care, tracing it from village to village through the districts under his charge; and believing it to be absolutely true that no local outbreak of cholera ever occurs which has not a defined place in a general epidemic movement of the disease, the connexion between the epidemic among the 18th Hussars and the returning cholera-wave became an essential question for his consideration.

On May 8, at Juggiapett—about 100 miles to the eastward of Secunderabad—a severe outbreak occurred, but, owing to the dilatory proceedings of the police, intelligence of it did not reach Mr. Cornish until May 25, or after the disease had become established in Secunderabad; so no warning could be given to the military authorities there of the impending danger. The interval between Juggiapett and Secunderabad being in the Nizam's country, there are no records to show the daily advance of cholera along the high road; but it is a fact beyond all question, that so far as Secunderabad is concerned, the disease was introduced along this eastern road from Juggiapett. On May 20 three travellers coming from this direction died from cholera near "James Bazaar," the most densely populated part of Secunderabad; so that the introduction of the disease was actually accomplished before the civil and military authorities had received any intimation of its approach. On May 21 a fatal case occurred in the village called "Chota Mulkapoor." On the 22nd the wife of a sepoy of the 24th N.I. was seized by genuine cholera, and on May 23 a party of cart-drivers, who had been attacked by the disease on their way from Masulipatam, near the Kistna River, and had lost several of their number, arrived at a village within half a mile to the south-east of the Hussar barracks, and close by the regimental horsekeeper's lines; on the same day two fresh cases occurred among them. Measures were immediately taken by the local authorities to stop all ingress to the barracks from the affected quarter. The next day—the 24th—was the Queen's Birthday, and there was a general parade of all the troops. The 18th Hussars were not unduly exposed in any way, and were, in fact, back to barracks earlier than any of the other regiments, being nearer home. There had been nothing remarkable in the health of the men up to this date. There were thirty-two in Hospital suffering from diseases, chiefly of debility; there was only one case of diarrhœa, and it was of a chronic nature. No change in the food or drink of the men had occurred, and there had been no drunkenness.

Two cases of suspicious diarrhœa occurred during that day among European officials who had been present at the birthday review. Five cases and two deaths from cholera occurred during the day among natives in the Secunderabad Bazaar, but these were not reported until the next morning. The day is said to have been close and sultry, but the meteorological record showed no remarkable variation as regards temperature, the maximum having been 106° and the minimum 79°. Dust-storms, rain, and sometimes hail are common in the Deccan about this season; but there had been no rain in the station since May 3, when ·14 inch was registered. The wind from the 3rd till the 24th blew strongly from the north-west—a direction in which it was quite certain that no cholera existed. There is no evidence as to whether any of the subsequent victims to cholera had visited the affected village on the 23rd, or had in any way come in contact with the cholera-stricken cart-drivers. The village is so close to the Hussar barracks and stables, that it would be rather remarkable if some of the men had *not* visited it during the time the cart-drivers were suffering from cholera.

The first person in the Hussar Regiment known to have been attacked by cholera symptoms was a patient in Hospital—a convalescent from fever—who was seized with choleraic purging at 10 p.m. on the night of May 24, but who did not report the circumstance until another man had been admitted with cholera. Other cases followed rapidly. In twenty-six hours thirty-four men and one child had been attacked, and during the next twenty-four hours there were eighteen additional admissions in the regiment out in camp. The whole stress of the epidemic fell upon the regiment during the first three or four days, and the disease was practically at an end in the corps four days after removal to camp, although several cases did occur on the fourth and fifth days of the outbreak.

Meanwhile the artillery and infantry in the Trimulgherry Barracks were in the enjoyment of their normal health; subsequently, however, isolated cases occurred among them in June, and the epidemic was prolonged among the native population. The 18th Hussars had been nearly six years at Secunderabad, and their health had considerably deteriorated of late. Their barracks in 1852 had been condemned as unfitted for Europeans, on account of defects in both site and construction. Many virulent epidemics of dysentery and fever had occurred among the troops quartered in them, but they had never been a notorious locality for cholera. Their situation is most faulty, lying in a hollow, and surrounded on three sides by higher ground. They had formerly been occupied by a full regiment of infantry, and were then much overcrowded; but on their conversion into cavalry barracks, surrounding walls and subsidiary buildings were removed. Their ventilation was thereby much improved, and other sanitary measures were effected; and for a cavalry regiment there was more than ample accommodation, the cubic space to each man of the 18th Hussars in the barrack-rooms at the time of the outbreak having been 2800 feet. The conservancy and drainage of the barracks were good, and the subsidiary buildings, although neither convenient nor well-arranged, were clean and in good order. Dry-earth conservancy had not been adopted in the latrines, but the excreta were removed twice daily.

The barrack blocks, eight in number, are arranged in the form of a square. The outbreak was almost simultaneous in all the blocks but one; but the men of this barrack began to suffer on the day of removal to camp. To windward of the barrack in which the outbreak was most severe were an old latrine and urinal, about twenty yards distant. The latrine is said to have been offensive at times. It was probably much resorted to on the night of the 24th, being more conveniently situated than any of the others. It is possible, therefore, that the inhabitants of the neighbouring barracks may have been more exposed to emanations from choleraic evacuations than any of the other troops of the regiment.

A theory was raised by Dr. Anderson, Assistant-Surgeon of the regiment, that in consequence of the disturbance of the soil during recent improvements in the vicinity of the barracks, cholera virus may have been extricated from it and carried by the prevailing north-west wind over the Hospital, in which the first case occurred, and those blocks of the barracks which were most affected. Dr. Anderson, however, at the time his report was drawn up, was not in possession of the facts of the introduction of cholera into Secunderabad; and Mr. Cornish demonstrates his theory to be inconsistent with those facts.

Mr. Cornish next proceeds to the consideration of the water-supply. The well in the barracks having some time previously been condemned, in consequence of the water containing an undue proportion of organic matter, a new well had been constructed to the north of the barrack enclosure, but the water in it being temporarily spoilt by solution of the lime used in cementing the walls, the drinking-water for the regiment was brought in barrel-carts from a public well close to the water-course which bounds the Secunderabad general parade-ground, and near the Sapper lines. During the dry season the water in the wells along this watercourse is not more than ten or twelve feet from the surface, and in the rains it rises very near the level of the surface soil. The cantonment burial-ground lies close to the watercourse, and, as a matter of fact, the well from which the drinking-water for the Hussars was obtained

lies about 400 yards *below* the burial-ground. In this situation, and within a short distance of each other, are four wells near the public road. They are essentially public wells, open to anyone who takes the trouble of lowering a chatty and drawing water. They are lined with masonry, and have parapet walls and platforms, but the latter are insufficient to prevent soakage into the soil around. On the whole, the surface of the ground about these wells is kept clean, but the watercourse close by and its margins are occasionally defiled with ordure, probably by travellers along the high road during the night, when detection is difficult or impossible.

Suspicion immediately fell upon these wells when the outbreak of cholera occurred, but was diverted from them by the theory advanced by Dr. Anderson. The water of the old condemned well in the barracks, whatever may have been its condition on May 24, was found by Mr. Cornish, on June 28, to contain less organic impurities than the drinking-water used at the same time by the Hussars; and it was thus plain to him that the regiment had, at great trouble and expense, been procuring a dubious supply from a distance, while a cleaner water, and one less liable to extraneous pollution, existed at the barrack doors.

There is no evidence to prove that the water used on May 23 and May 24 had been obtained from any other source than the parade-ground wells; but the suspicion that the water-carriers, to save themselves trouble, had brought it from a nearer source, is probably well founded. There were nearer sources close at hand—viz., the well in the horse-lines, and another near the horsekeepers' huts, both of which are within an easy distance of the village in which the cholera-stricken cart-drivers were detained on May 23. Either of these wells might have been used by people with cholera, and have also supplied the water for night use in the barracks on May 23 or May 24; but Mr. Cornish considers the evidence for or against this view of the question to be wholly untrustworthy. Even the parade-ground wells were liable to contamination—they are crowded all day long by people from the neighbouring bazaar, who bring their own chatties and ropes to draw water; and it is quite possible that chatties from an infected house, soiled with cholera-matter, may have been washed at the wells, and that thus the *ordinary source* of supply for the drinking-water used in barracks might have been temporarily contaminated with cholera-matter. This, however, cannot be directly proved.

The only difference between the 18th Hussars and the other European troops in the Trimulgherry barracks in regard to water-supply is, that the Trimulgherry wells were kept solely for the troops and followers. The wells are of great depth, so as to be impracticable to natives, who draw for themselves by a chatty tied on to a rope. All the water from them is lifted by bullock-power, in large leathern bags, into masonry reservoirs, and thence removed to the various barracks by carts or water-carriers' bags. Beyond the water-supply, the conditions of existence of the Hussars did not differ from those of the other European troops in the command. The food, drink, canteen supplies, etc., were of exactly the same nature.

It is therefore a most important fact that, while the Hussars were suffering from the cholera outbreak, the troops at Trimulgherry escaped absolutely. Although, as admitted by Mr. Cornish, the evidence in regard to the actual pollution of the water-supply is not sufficient to convince those who decline to accept the view that water is the most common medium by which cholera is communicated from man to man, the lesson drawn from it by Mr. Cornish, in the very full and able report now before us, is easily learned, and is of extreme importance—to the effect that, without pretending to say that in every case cholera is communicated by polluted water, "it behoves those who are responsible for the lives and safety of British troops to see that every possible precaution is taken to insure that their water-supply cannot have been exposed to the chances of defilement."

Mr. Cornish also details several other facts of this very remarkable epidemic, but we have no space to notice them at present.

TRIAL FOR ALLEGED MALPRAXIS.

At Stockton County Court, on the last Friday and Saturday of October, was tried the case of Hutchinson against Watson. The facts may be briefly stated. The plaintiff was a single woman, and, being *enceinte*, was removed from her own home to a lodging, at which Dr. D. H. Watson attended her in her confinement. The child was born alive, and the woman, according to Dr. Watson, was left by him in a perfectly satisfactory state, the uterus being contracted. He continued to attend her for five days. The woman afterwards was found to have inversion of the uterus. Several Medical gentlemen saw her, and attempts were made to reduce it; but these failing, Dr. Murray, of Newcastle, assisted by other Surgeons, excised the uterus at the expiration of six months after delivery. The operation was successful, and the woman made a good recovery. The action was brought against Dr. Watson for "improper, negligent, and unskilful treatment," and it was sought to be proved that he had removed the placenta almost immediately after delivery, and by the insertion of his hand into the uterus. By this proceeding, it was contended for the plaintiff, the uterus had been inverted, and all her subsequent sufferings and mutilation had arisen. With the exception of the girl's evidence, there was really nothing to show that any violence whatever had been used; and it is more than probable that she was not in a condition to know exactly what did take place. Opposed to her evidence is that of Dr. Watson himself, who distinctly swore that he had examined her closely for five days, to "ascertain that the uterus retained its proper position;" and that of Dr. Tarleton, who had also examined the woman some time after delivery, and found "the uterus in its proper place." Upon the meagre testimony of the patient, and some allegations of neglect by others after delivery, Dr. Watson was sued for damages; and these were laid at £2000. For the plaintiff several Medical witnesses were called, and these were examined on the assumption that violence had been used by Dr. Watson, and that the inversion of the uterus was consequent thereon. Their evidence, of course, was condemnatory of the defendant. On his part, however, the Medical evidence was conclusively in his favour. The opinion of Dr. Keiller and others was that the inversion was spontaneous, and was altogether independent of anything done by the defendant. In his summing-up, the judge said the evidence was as conflicting as could be—of course, he alluded to that of the Medical witnesses. "But," said he, "certainly no evidence was given to show that during the time the plaintiff was in the hands of the defendant there had been any negligence." The jury having retired for a short time, returned with a verdict for the defendant, which was received by those present with considerable cheering.

Such are the brief outlines of this extraordinary case—extraordinary as showing the flimsy grounds upon which a Medical Practitioner may be put upon his trial; and extraordinary that such a conflict of Medical evidence should have existed, when a few words of explanation from the defendant might have convinced all those of his brethren who appeared against him that the inversion was spontaneous, and that he was not to blame in any way. The verdict was for the defendant; but is it a triumph? A very questionable one, indeed, so far as anxiety and pecuniary loss are concerned. Here is a man, from no fault of his own, but from circumstances which might occur in the practice of any one of us, kept for months on the tenter-hooks of suspense, and incurring ruinous costs, to defend himself from a groundless charge of incompetence and negligence. The money-cost to Dr. Watson must, indeed, be very large, for the plaintiff has no means whatever of paying

anything towards it. Indeed, one of the peculiar hardships of this case is, that it was originally brought in the Court of Exchequer at Westminster, but removed by order of Judge Bramwell to the Stockton County Court, because the plaintiff could not give security for costs. By this proceeding, no doubt, the expenses of the trial were much diminished; but mark the result! Under any circumstances Dr. Watson must be severely punished—must be a great loser. This is a state of things which should not exist. The lawyers say there is "no wrong without a remedy." Where is the remedy for the grievous wrong inflicted on Dr. Watson? This trial, as well as many others which have taken place within the last few years, show how vastly important it is for Medical witnesses, before they appear in court against a brother Practitioner, to make themselves thoroughly acquainted with all the facts of the case. It may be the turn of one of the hostile witnesses to-morrow to have his reputation, and perhaps his very existence, jeopardised by being sued on a groundless charge of "incompetence and negligence." Are we never to be true to the interests of ourselves and our Profession?

There is one circumstance connected with this trial which we would fain omit to notice, but cannot with propriety do so. We allude to the appearance of the partner of Dr. Watson in the witness-box against him—a position which must have been painful to that gentleman in the extreme, inasmuch as he had quarrelled with the defendant. We should have been pleased if Dr. Farquharson had found it possible to decline giving evidence—conscientious evidence we are sure it was; but the defendant might well exclaim, on seeing him in the witness-box, "*Et tu, Brute.*"

THE WEEK.

TOPICS OF THE DAY.

THE Profession throughout the three kingdoms will be glad to hear that the Queen has been pleased to bestow the well-merited honour of a baronetcy on Dr. Christison, of Edinburgh. Sir Robert Christison's services to Medicine, whether as a practical Physician and pathologist, a chemist and toxicologist, or a writer on the nature and uses of medicines, require no praise from us—they speak, and have long spoken, for themselves. We cannot refrain from saying, however, that Sir Robert Christison has done more to place toxicology on a thoroughly scientific basis than any man of the present century, with the exception of Orfila. We hope he will long live to enjoy his deserved honours, and to adorn the University in which he has so long been a foremost teacher.

A young Radical baronet, who has lately acquired some notoriety (Sir Charles Dilke), has been enlightening the colliers of Newcastle-on-Tyne on the extravagant expenditure of Royalty and the enormous cost of the Royal household. He made his grimy hearers especially merry with the following account of the Queen's staff of Medical attendants:—

"The salaries in the Royal household, which amount to £131,000 a year, include a vast number of totally useless officials—Chamberlains, Controllers, Masters of Ceremonies, Marshals of the Household, Grooms of the Robes, Lords-in-Waiting, Grooms-in-Waiting, Gentlemen Ushers, and a few persons who appear to perform services, but who ought to be paid for those services as they perform them, and not be made permanent officials with great titles of honour—such, for instance, as the Historical Painter to the Queen, Portrait Painter to the Queen, and the Lithographer-in-Ordinary. Under the Lord Steward's department, and the department of the Master of the Horse, we have such officers as the Coroner of the Household, and the Chief Equerry and Clerk Marshal, and various others whose duties are not of a very burdensome description. Nothing is more singular than the constitution of the Medical department. You would hardly credit the number of Medical gentlemen who are required for the service of the Household, but I am aware that some of them are unpaid. There are three Physicians in Ordinary, three Physicians Extraordinary, one Sergeant-Surgeon Extraordinary, two Sergeant-Surgeons, three Surgeons Extraordinary, one Physician of the Household, one Surgeon of the Household, one Surgeon-Apothecary, two Chemists of the Establishment in Ordinary, one Surgeon-Oculist, one Surgeon-Dentist, one Dentist in Ordinary, and one other Physician—or twenty-one in all; while the Prince of Wales has for his special benefit three Honorary Physicians, two Physicians in Ordinary, two Surgeons in Ordinary, one Surgeon Extraordinary, one Chemist in Ordinary, or eleven more—making thirty-two Doctors in one family."

Now, we hardly think that such a charge requires a reply. Sir Charles Dilke himself allows that some of the Medical appointments are only honorary—which, indeed, we should think scarcely a matter on which to congratulate the Queen of England's subjects. But we may remark, *en passant*, that the Medical expenses of her Majesty's household can scarcely be comparable with the vast sums which Sir Charles Dilke's father and others assisted Prince Albert to lavish on the fine arts at South Kensington—for which services of his father Sir Charles Dilke now inherits a baronetcy, the use of which honour seems to be somewhat incongruous with his principles.

A meeting of the Poor-law Medical Officers' Association was held at the Medical Club, in Spring-gardens, on Tuesday last. The object of the meeting was the consideration of Mr. Corrance's Bill for the better regulation of Medical Poor Relief, and for establishing Dispensaries in England and Wales.

PROFESSOR HUXLEY AT THE LONDON INSTITUTION.

THE subject of Professor Huxley's second lecture, on Monday last, was, "Contractile Matter: its Structure and Properties." He commenced with a *résumé* of the concluding portion of the previous lecture, on the contractile properties of the colourless blood-corpuscles, and then mentioned various other structures in the human body which the contractile principle endows with most important functions—such as the membrane lining the air-passages and other mucous canals, in many of which a constant current of fluid in one direction is maintained by the alternate contraction and relaxation of the opposite sides of the cilia, arranged in regular order on the epithelium. Such movements, though difficult to observe in the human subject, may be demonstrated in a frog by placing a little charcoal on the tongue extruded from the mouth, and retained for a short time in that position. It will then be observed that the stain of the charcoal gradually changes its place, in consequence of the motion communicated to its particles by the cilia of the mucous membrane of the tongue. A similar result may be observed in the motion of the particles contained in water in which a small portion snipped off the gill or beard of a living fresh-water mussel has been placed. But it is not in the higher or purely animal textures only that contractility exists—it is a fundamental property of protoplasm of all sorts; it is observed in the amœbæ and lower organisms existing in countless numbers in muddy pools. In these the contractile protoplasm converts the cilia on their surface into actual locomotive organs, by which they are propelled, without definite direction, from place to place in the field of the microscope. In plants, also, the same property of their protoplasm maintains a constant circulation of their fluids, as may be proved by careful observation of the sting of the nettle under the microscope. It may also be demonstrated in the green fungus which grows on damp walls and trees, and in which, under the favouring circumstances of heat and moisture, numerous projections of protoplasmic tissue of extreme tenuity and perfect transparency, but endowed with contractile properties, may be observed. This motion of the protoplasm of plants, however, he warned his audience, is distinct from the "irritability" possessed by the sensitive plant, and must not be confounded with it. The motion of granular material along the surface of the extremely minute and delicate projections from the bodies of various marine organisms, also illustrates

the existence of contractility in the protoplasm of which they are composed. Such bodies, by alternate contractions and relaxations, gradually move small granules along their surface—much in the same way as a horse, or other animal possessing the necessary muscular apparatus, can shake or corrugate his skin so as to detach troublesome insects; or as persons arranged in a line, to assist in extinguishing a fires pass the buckets of water along from hand to hand.

Professor Huxley next proceeded to inform his hearers as to the connexion between this contractility of protoplasm and the muscular power by which he was enabled to perform the typical motion which he had selected for illustration—namely, the flexure of his forearm on his arm. He described the experiment of Kühne, who, on enclosing a small quantity of the protoplasm of the fungus found in tan-pits, known as *æthalium*, in an extremely fine animal membrane—namely, a piece of the intestine of a beetle, thus forming a protoplasm-sausage as it were—and fixing one end, and attaching the other to the extremity of a sensitive lever, found that on passing an electric shock through the protoplasm contained in the beetle's intestine, a contraction ensued, its result being rendered evident to the eye by the movement of the attached lever. This contraction, consisting in a diminution of length and an increase in breadth, is exactly analogous to the contraction of a muscular fibre; and there was thus artificially formed a texture essentially identical with the forms of certain muscular tissues in the higher animals—namely, the plain or non-striated muscles—which he described as simply protoplasm contained in fine membrane, and as examples of which he mentioned the muscular investment which surrounds the whole length of the tube of the intestinal canal, and which, on being submitted to the requisite stimulus, performs the important function of propelling the semi-fluid contents of the intestine; another being the muscular tissue which controls the flow of blood through the capillaries. He next demonstrated by diagrams the structure of the striated muscular tissues as observed after death—how they resemble in their essential nature the simpler structures, but that, from the contained protoplasm not being homogeneous, they assume, when closely packed together, the striated appearance from which muscles composed of them derive the name of "striped muscles." He illustrated the arrangement of the ultimate muscular molecules in living muscle by the familiar instance of the currants in a plum-pudding, and mentioned that the earlier notion of these molecules forming longitudinal fibrillæ is a mistake, the appearance of striæ and fibrillæ being a post-mortem change, depending upon the coagulation of the plasma contained in the muscular molecules, and its separation into myosin and water, and not being observed in actually living muscle. This coagulation of protoplasm may be demonstrated by squeezing out the fluid of a piece of muscle frozen in the living state; it will then be observed that, on raising the temperature above 32°, coagulation takes place, and the myosin separates from the water exactly as the coagulum of blood, which when drawn is perfectly fluid, but on cooling separates into clot and serum. There is a remarkable difference, however, in the fact that protoplasm coagulates on rise, while blood coagulates on fall, of temperature. One of the most remarkable results of this post-mortem coagulation of protoplasm is the condition known as the "death-stiffening," which occurs at varying periods after an animal dies, and is followed by complete relaxation. On battle-fields this condition often presents itself in very striking forms, the bodies of men killed instantaneously being found stiffened exactly in the position in which they received their death-wound. It has also been observed that this result was more frequent among men who had previously undergone great muscular fatigue.

The effect of muscular action is not limited to simple motion of a limb. The hand and arm, for instance, can be steadily maintained in any desired position for a considerable period; and this is effected by the alternate and extremely rapid contraction and relaxation of the molecules of the muscle. For the maintenance of such alternating contractions and relaxations a due supply of nervous stimulus is necessary; when this fails from any cause, as age or intemperance, the steadiness of hand and limb is lost. Every such contraction involves a chemical change in the nature of the contained protoplasm, which, while at rest, is alkaline, but on contraction becomes slightly acid, the acids given off being chiefly carbonic and lactic acids. The same change takes place at the moment of death; and it thus becomes apparent that every muscular contraction involves a temporary death of the muscular molecules.

A STARTLING STATEMENT—A CASE FOR INQUIRY.

In one of his most popular novels, Mr. Charles Reade made some revelations respecting the treatment of patients in private lunatic asylums, which, if even mere fiction, were sufficient to awaken the interest and excite the indignation of the reader. Even if they were true, they would not exceed in atrocity what is stated on the authority of Dr. Stallard to be the case respecting the Metropolitan Asylum for Imbeciles at Caterham. At the meeting of the Holborn Board of Guardians last week, this gentleman stated that he had gone over the Asylum very carefully, and had arrived at the firm conviction that there were a number of persons confined in that Asylum who ought not to have been sent there. Admission into the Asylum was too easy; and he could quite understand, when persons made themselves disagreeable in a workhouse, that the Medical officers stretched a point, and certified that those persons should be sent to one of the asylums. It was remarked by the chairman that this was a very startling statement; and, if the facts were as stated, the Board thought such a state of things ought not to continue. We should think not, indeed! Anything more disgraceful cannot be conceived. But surely there must be some mistake in the matter. Is it possible that any Medical officer would "stretch a point," and confine a sane man in a madhouse because he was troublesome? We cannot believe it. But such a statement as that made—and made, too, *officially*—demands the immediate attention of the Commissioners in Lunacy. A thorough investigation should take place, and the truth searched out. The Chairman of the Committee of Managers of Caterham, Dr. W. G. Certis, writes thus to the *Daily News*:—

"I beg to inform you that the statement which, according to your report, was made to the Holborn Board of Guardians, that a fee of one guinea is paid to the Medical officer certifying for a patient to be sent to Caterham, is entirely incorrect. There is no fee whatever paid in the case of either of these asylums, although there is in the case of a lunatic sent to a county asylum. Neither, to the best of my belief, is there any sane person in the Asylum."

But surely, if a guinea was to be paid for signing a certificate of insanity, it is not presumed that a sane man would be sent to an asylum for the mere purpose of the Medical officer receiving such a fee!

A VETERAN ON WOMEN-DOCTORS.

At the Medical students' annual dinner, in connexion with the Manchester School of Medicine, held last week at the Albion Hotel, Manchester, Mr. Turner, who founded the School nearly half a century ago, in reply to the toast of the evening said—"They had many competitors. Yes; and he would beg to introduce to their notice new competitors—he referred to the ladies. There were now Practitioners in the garb of ladies, inoffensive in every respect, and calculated to perform certain offices in connexion with their Profession well; but he only wished they would follow those offices in which they might excel, and that they would not meddle with those duties which would devolve more properly upon the Physician or the Surgeon. They knew that ladies were sometimes apt to get out of their proper rank very much; he liked to see them in their proper station."

CHARGE OF NEGLECT AGAINST A MILITARY MEDICAL OFFICER AT ALDERSHOT.

A CORRESPONDENT of a military contemporary last week made a serious charge of neglect against the Medical officers of a regiment stationed at Aldershot, to the effect that the wife of a soldier had died, after the birth of a dead child, without having been visited by a Medical officer. So far as we have been able to learn about the matter, the case is as follows:—The unfortunate woman was one of those married "without leave," and consequently not entitled, according to the regulations of the service, to Medical attendance of any sort. The regimental Assistant-Surgeon, however, to whom her husband applied, taking his stand upon humanity instead of regulations, told the husband he would see her if the midwife in attendance required any assistance. The husband returned to his lodgings, and brought back a written message from the midwife that the child had been born about two hours, that the placenta had been discharged, and the patient was at that time going on well. Shortly afterwards, the Surgeon of the regiment was hurriedly called to see the woman. He went at once, and found her dead—from hæmorrhage, we believe. If the facts be as we have detailed them, and taking into consideration that, as we are informed, according to the regulations of the service the Medical officers of a regiment are not required to attend even the wives of soldiers married "with leave," during their confinements at their own quarters, unless the midwife employed requires their assistance, the Medical officer against whom the charge of neglect in the present instance has been made will have nothing to fear, either in a Professional or military point of view, from the fullest inquiry into the matter.

MILITARY ETIOLOGY.

A DUBLIN correspondent informs us that cases of enteric fever have latterly become rather frequent among the troops stationed at Dublin and at the Curragh. The occurrence of some cases among the soldiers confined in the military prison at Arbour-hill has attracted the particular attention of the military authorities, who have, as we are informed, ordered a board of field officers to investigate the origin of the disease in that establishment. Except a jury of matrons, empannelled to decide as to the pregnancy of a female under trial on a capital charge, it appears to us that nothing could be more absurd, or less likely to lead to valuable results, than an investigation, into the etiology of a local outbreak of disease by a board of military officers. The procedure of such a board is, we believe, to summon the Medical officers before them as witnesses pick their brains, and then report the conclusion at which they have arrived for the information of the general in command. The supreme stupidity of military jealousy of Medical or other interference in matters concerning which professional advice may be construed into the semblance of command, prevents mixed boards of military and Medical officers considering any subject on which a Medical opinion may be required; hence arises the absurd system of a purely military board being assembled to investigate and report upon a purely Medical question. We hear, also, that in one of the Guards regiments stationed in Dublin more than a hundred cases of severe impetigo of the head and face have occurred. Although the first cases appeared among the children, some connexion is suspected between the appearance of this disease and the issue of new bearskin shakoes to the men. Here will be a nice point in the etiology of cutaneous diseases to be discussed by a board of field officers!

If we might venture a piece of advice to Medical officers summoned as witnesses before such boards, it would simply be—to give no information except in reply to specific questions from the board, to volunteer no technical or Professional opinion, but just to let the board, as schoolboys say, "pick it out of their learning." If Medical officers are not permitted to sit as members or presidents of mixed boards, according to their relative rank in the army, or to investigate and report on Medical or sanitary matters without going through the farce of appearing as witnesses before a board of military officers, the public service cannot but suffer; and it would be to the interest of the public to inquire whether, instead of the present roundabout system, there cannot be discovered a more excellent way.

MEDICAL CORONERS IN AUSTRALIA.

THE *Melbourne Herald*, most probably inspired by some member of our Profession who objects to one of the Medical coroners in Victoria, has a laboured and inconsequent leading article on Medical coroners. According to the *Herald*, Medical coroners are "incompetent," "mercenary," and "officious." The writer proceeds in a strain of vituperation against them, and instances several cases, in which he states inquests were unnecessary; but he is sadly ignorant, not only of the duties of a coroner, but of the object of a coroner's inquest. Here is a specimen of the writer's assertion: "If the public are satisfied as to the cause of death, the coroner has no right to take upon himself to act." How is a coroner to know that the public is satisfied?—he has no decided means of ascertaining this. It is far more conducive to the public safety, to the protection of life, and the prevention of crime, for inquests to be held on all causes enumerated in the Coroners Act. But whatever may be the shortcomings of one or two Medical coroners in Victoria, it is certain that in this country they are far superior to lawyers. Not only are inquests better conducted by the Doctors, so far as the cause of death is concerned, but it is remarkable that as yet no case has occurred, in which an inquest has been presided over by a Medical Practitioner, of an attempt to quash a verdict on the score of incompetence or bias on the part of the judge. And, recollecting the great number of Medical coroners of boroughs and counties there are in the United Kingdom, this is a striking, and should be a convincing fact. Colonial legislation is, in some respects, in advance of ours; but if the Medical coroner is to be superseded by the lawyer, legislation will be retrograde. There is evidently much personal feeling mixed up in the question now being discussed in Victoria—a feeling which has the effect of ignoring the real question at issue, so far as the Profession and the public are concerned.

MEDICAL BENEVOLENT FUND OF IRELAND—BELFAST BRANCH.

THE usual quarterly meeting was held last week. Dr. James Moore presided. The branch was very flourishing. The balance-sheet was as follows:—The total available amount for distribution this year was £933 11s. 8d., and the number of actual grantees was 82, thus enabling but little more than £11 to each on an average. We have made the following analysis of those grants, and find one awarded £41; four, £31 each; one, £26; one, £25; one, £21; one, £20; eight, £16 each; one, £15; two, £14 each; one, £13; two, £12 each; fifteen, £11 each; four, £10 each; thirteen, £9 each; four, £8 each; eighteen, £6 each; and one, £5—so that the highest and lowest sums respectively were £41 and £5. We hope that the Society has by this been put in possession of the sum of £1000 so handsomely offered by a philanthropic Medical man signing himself "Nemo," provided that twenty Medical men in Dublin gave £100 each, or forty the sum of £50 each. This offer was to hold good for six months from June last. After making arrangements for the annual meeting of this branch in February next, and the transaction of some other routine business, the chair was vacated, and the meeting separated.

EFFECTS OF WAR.

WE stated in a recent number that the Medical students at Strasburg had been reduced in number to such an extent as would render the classes all but obsolete. The Faculty of Medicine of that place is now about to be settled at Nancy, where it is to be hoped a prosperous career will attend it.

THE FEVER TREE.

The cultivation of the *Eucalyptus globulus* is making great progress in the South of France, Spain, Algiers, and Corsica; nor is this to be wondered at, if an account lately given of its virtues by Professor Gubler, in the *Bulletin de Thérapeutique*, is even partially true. It is a native of Tasmania, where it was of old known to the natives and settlers as a remedy for fever. It prefers a marshy soil, in which it grows to a gigantic height with great rapidity. It dries the soil by the evaporation from its leaves, and shelters it from the sun, thus preventing the generation of marsh miasm. Its wood is as hard as teak. Every part of it is impregnated with a balsamic, oil-of-camphor-like odour; and besides a notable quantity of astringent matter, it contains a peculiar extractive, which is supposed to contain an alkaloid allied to quinine. At any rate, its efficacy in intermittent and marsh fevers has gained for it in Spain the name of the "fever tree." It is a powerful tonic and diffusible stimulant, does wonders in chronic catarrh and dyspepsia, is an excellent antiseptic application to wounds, and tans the skins of dead animals, giving the fragrance of Russia leather. We can vouch from personal observation for the flourishing condition of the plantations at Hyères and Nice, where trees from seeds sown in 1859 are said to be now sixty metres high. We hope that experience will confirm Professor Gubler's anticipations of the remedial virtues of the *Eucalyptus*.

A FAMILY DANGER.

It has been reported on several occasions that animals fed on the milk of cows affected with foot and mouth disease have suffered considerably—some even to their death—in consequence. The *Liverpool Mercury* of last week contains a letter from a correspondent, who says that the younger members of his family have been ill—the baby seriously so—from partaking of milk supplied from a farm whereon there were cattle affected with the above disease. The writer complains that whilst the law compels owners of cattle to give notice to inspectors when animals are infected, it does not prevent the sale of milk from diseased cows. He suggests that the magistrates should pass by-laws with the object of remedying the evil, and, secondly, that parents should look carefully after those who supply milk to their families. In reference to this subject we would refer our readers to an able paper in our last number, by Mr. T. E. Amyott, on "Foot and Mouth Disease in the Human Subject."

FROZEN BEEF-TEA.

A good idea comes to us from America, through the medium of the *Philadelphia Medical Times*. Dr. Burney Howe writes, remarking how difficult it often is to get children suffering from inflamed throat to take nourishment, and mentions the following case:—

"A child was seriously ill with scarlet fever, and, owing to the condition of his throat, it was almost impossible to induce him even to attempt to swallow the beef-tea which his condition imperatively demanded, although he took ice with avidity. He was evidently sinking, when his father suggested that beef-tea made according to Liebig's formula might be readily frozen into a sort of water-ice. This suggestion was immediately carried out, and without trouble—a confectioner freezing the beef-tea, a pint at a time, into a firm mass. Portions of this the child took readily, finally recovering—a result due in great measure to his father's ingenious device. It is, of course, necessary to keep the frozen mass surrounded with the freezing mixture, but with this precaution it may be kept for a great length of time."

We do not clearly understand what preparation of meat is here meant—whether beef-tea freshly prepared but deprived of gelatine, or a watery solution of the so-called extract of meat. We almost begin to wish that this preparation, useful though it be, had never been introduced; for to give a man such a solution when he is ordered beef-tea is very like giving him a stone when he asks for bread. Extract of meat is no more food than brandy is. It is exceedingly useful for flavouring an otherwise tasteless mess; and if the patient can take it thickened with good corn-flour—not starch alone—it will do him good; but to give it alone is a mistake. We have eaten half a pot of the stuff, and remained as hungry as ever—the only effect being to produce thirst, to heighten the bodily temperature, and to increase the nitrogenous matter in the urine. Unfortunately, it has made its way into Hospitals, and we are often vexed to see unfortunate patients, ordered beef-tea, getting only a dose of kreatin, kreatinin, sarkin, and what not substances, not of the slightest value as food. But, with good beef-tea or beef essence, the freezing suggestion should prove admirable.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.

An ordinary general meeting of this Society was held on Friday, October 27, at the room, 53, Berners-street; the chair was taken by the President, Dr. Burrows. From the half-yearly statement of accounts read, it appeared that the amount of the grants for the half-year ending June 30 was £1370 10s., given to fifty-three widows and fifty children, and the expenses £125 0s. 5d.; the available receipts for the half-year amounted to £1479 10s., and the expenditure to £1442 10s. 5d., leaving a balance of only £36 19s. 7d. in favour of the Society to meet any addition to the present grants. Fresh applications have been made from three widows and four children. The directors appeal to the kind assistance of their Medical brethren, who, they feel confident, will not, from want of help, compel them to diminish the relief hitherto accorded to the widows and orphans.

MEDICAL EDUCATION AT CAMBRIDGE.

Symptoms of making the curriculum of Medical studies at Cambridge somewhat more practical are exhibiting themselves. The Vice-Chancellor of Cambridge has just presented to the Senate the following report of the Board of Medical Studies:—

"The Board of Medical Studies recommend—

"1. That the following be added to the requirements prior to the third examination for the M.B. degree: That the candidate be required to produce a certificate of having been clinical clerk for six months, at least, at a recognised Hospital, or of having, subsequently to the completion of his attendance on Hospital practice, attended to practical Medicine with special charge of patients in a Hospital, Dispensary, or parochial union, under superintendence of a qualified Practitioner, unless he himself be duly qualified. This regulation to come into force in the Easter term, 1872.

"2. That 'experimental physics' be added to the list of courses of lectures in Section 10 of 'Regulations for Degrees in Medicine.'"

The Vice-Chancellor appointed yesterday for the discussion of the above report.

SEA-WATER BATHS IN LONDON.

A company has been started for the establishment of swimming- and other baths of sea-water, and for retailing sea-water to the public. The first set of baths are to be erected in Pimlico, but the projectors of the company have in view the institution of floating baths on the river, also. The great difficulty in the way of such schemes has been the expense of bringing sea-water to London. We understand the new company propose to float it up the river in enormous tanks dragged by steam-tugs. Anything which will increase facilities for bathing and personal cleanliness has our warmest approbation.

SMALL-POX AT OXFORD.

Seven new cases and two deaths have occurred, against eight new cases and three deaths last week. Both the deaths occurred in unvaccinated cases. The total number now under treatment is thirty-two.

SMALL-POX JOTTINGS.

In several of the large towns of England small-pox is still epidemic. At Chorlton, twenty-seven cases of the disease had been admitted into the workhouse infirmary during the last month. Six deaths had taken place, and of these five were entirely unprotected by vaccination. In the workhouse, revaccination had prevented any spread of the disease. At Wolverhampton, during the past week, the number of cases amounted to 240—an increase exceeding by fifty the return of the week before. These cases are all, or nearly all, taken from the poorest class; and there is reason to apprehend the spread of the disease amongst the wealthier classes is even more marked—at least, that is the opinion expressed by one of the Medical officers of the union.

SCARLATINA IN INDIA.

In the last edition of his "Practice of Physic," Sir Thomas Watson says—

"Till quite recently I had supposed scarlet fever was unknown in India. . . . . Rumours of its appearance, however, had of late arisen, and Surgeon Chapple, of the Royal Artillery, has set the question at rest by a report of a series of cases of unequivocal scarlatina which happened in the early part of the present year at Kirkee. Kirkee is a large military station, within six hours by rail from Bombay. On January 31, 1871, seventy-five artillerymen, seven women, and twelve children landed at Bombay from the troopship *Euphrates*. Several cases of scarlet fever had occurred on board the *Euphrates* during her voyage from England. On February 20 a child was admitted into the Hospital at Kirkee with scarlet fever; on the 24th two more children; on the 27th another. Cases continued to occur up to the end of April, when the disease ceased to show itself."

The occurence of this outbreak seems to have excited considerable attention in India; and the question has been raised whether scarlet fever ever occurs in Calcutta. Inquiries have been made, and the results are published in the *Indian Medical Gazette* of October 2. The general opinion is, that the disease does not prevail there, though one in some respects similar is occasionally observed. Here are the conclusions arrived at—

"On the whole, the evidence on the subject hitherto recorded in these pages amounts to this:—Scarlet fever does occur in India, in European communities, either as an isolated case or a limited outbreak. It does not appear to shew any great tendency to spread, and in all cases there is a demonstration or a strong suspicion of its importation into this country from Europe. There is not a jot of evidence that the disease is indigenous, or has ever occurred among the natives of the country. As far as Calcutta is concerned, the evidence now adduced confirms our original assertion. The disease, as a contagious exanthem, may be said to be unknown here, and isolated instances are puzzling as to etiology. The subject is still open for inquiry or discussion."

ARMY MEDICAL DEPARTMENT.

Dr. H. H. Massy, C.B., Deputy Inspector-General of Hospitals, at present Head of the Sanitary Branch of the Army Medical Department, is, we hear, about to go out to India as Principal Medical Officer at Bangalore, and that he will be succeeded in the Director-General's Office by Inspector-General W. Muir, C.B., now Principal Medical Inspector of British Troops in Bengal.

INDIAN MEDICAL SERVICE.

It is intended, we believe, to admit candidates for this Service to the competitive examination to be held in February next. We have not yet learnt the probable number of vacancies.

FROM ABROAD.—M. BRIQUET ON AN EPIDEMIC OF SMALL-POX—OPHTHALMOLOGY A FRENCH SCIENCE.

At a recent sitting of the Académie de Médecine, M. Briquet read a paper upon an epidemic of small-pox occurring in an ambulance to which he was attached during the siege of Paris. The cases that came under his care were 504, all occurring in soldiers, nine-tenths of the number having been vaccinated, and one-tenth revaccinated. Of 413 subjects having characteristic pock-marks, 252 had slight variola, 107 varioloid, 20 discrete variola, and 34 confluent variola. Of the 66 subjects in whom no cicatrices were present, 14 had varicella, 7 varioloid, 13 discrete variola, and 32 confluent variola. The general result was, that in properly vaccinated individuals five-eighths had the disease but slightly, two-eighths had it somewhat seriously, and only one-eighth had dangerous variola. In the non-vaccinated there was a third of slight, to two-thirds of serious cases. In the vaccinated the mortality reached about a tenth, while in the unvaccinated it amounted to two-thirds. With reference to the period after vaccination, the number of cases of variola regularly increased in proportion to the length of this. The subjects, too, who exhibited the fewest pock-marks, constituted the largest proportion of the cases of variola and the smallest proportion of those of varioloid and varicella.

With respect to the anatomical coaditions of the pock M. Briquet regards it as having its seat in the rete mucosum, the variolous pimple being constituted by the development of the capillary network of the skin. After the third day, when the pearly colour appears, a greyish exudation takes place between the epidermis and dermis, and is much more adherent to the former. The central depression of the pock seems to be due to the projection of this disc of exudation, which is much thicker at the circumference than at the centre; while the brown colour arises from the transparency of the epidermis allowing the brown colour of the contents of the pustule to become visible. In discrete variola there is a disc for each pustule, only a vestige of which is seen in varioloid. In variola with "coherent pustules" the discs are in close and regular contact, while in the confluent form they become embedded and confounded with each other, and are more or less atrophied and misshapen in consequence of their reciprocal compression. In the hæmorrhagic form there is only blood, or blood mingled with pus.

In what he terms the pathological section of his essay, M. Briquet examines the characteristics of this epidemic, and, among the special facts observed in it, adverts especially to the accompanying rash, the hæmorrhagic condition, the delirium, and the mortality. The rash was observed in twelve of the cases, always preceding the eruption two or three days and lasting four or five days. It presented two forms, the one continuous (like scarlatina) on the trunk, and the other discrete or disseminated on the limbs. Among the twelve patients in whom it was observed five died. Delirium was observed more commonly than usual; appearing only during the early days of the eruption, it generally ceased after three or four days, persisting, however, in some cases, until death. The hæmorrhagic form was of frequent occurrence during this epidemic, a fact which M. Briquet attributes to the bad diet and the work in the trenches during winter. The mortality has been very considerable. According to the figures communicated by M. Worms, variola gave rise in Paris, between July, 1869, and June, 1871, to 13,611 deaths, 1800 of these taking place in soldiers. On comparing the mortality of the civil and military Hospitals from November 1, 1870, to May 1, 1871—the period during which the epidemic was at its highest intensity—it was found that it was for the former 35 per cent., and for the latter 16 per cent. Examining the dates of the deaths which took place in the civil and military Hospitals, it was found that three-fifths occurred from the intensity of the eruption, and two-fifths either indirectly from the intensity of the disease or from consecutive diseases. In M. Briquet's cases the reverse of this was observed, for the deaths imputable to the intensity of the eruption were thirty-nine, and those which resulted from various complications were forty-five. The deaths of this second category were greatly influenced by the hygienic conditions in which the patients were placed. The most ordinary causes of these

deaths were secondary hæmorrhage, prolonged diarrhœa, local phlegmasia of the skin followed by abundant suppuration, laryngitis, bronchitis, pneumonia, etc.

The objects aimed at in the treatment were the prevention or relief of the accidents which accompany the eruption. Cases of varioloid and varicella are always left to themselves; and the course of the disease was only sought to be interfered with when the eruption was either very abundant or confluent. For such cases, mercurial ointment was employed, with the view of preventing the swelling of the face, and the formation of those layers (*nappes*) of pus which, escaping through the fissures of the epidermis, cause such severe pain and give to the head so repulsive an appearance. It was applied in ninety-five cases in which the eruption was intense. When the variola was discrete, the inflammation of the pustules was either diminished or completely arrested, the red areola disappearing, and the fibro-plastic exudation taking place very incompletely. Of the ninety-five patients so treated, and who were all badly attacked, forty were cured and fifty-five died. Salivation was not infrequently produced, but it yielded promptly to the usual gargles.

M. Briquet, in this paper, laid great stress upon the fact that the variolous pustule reposed on a kind of support or disc, which seemed to consist of fibro-plastic tissue. This disc, he observed, is very easy of enucleation by means of a slight incision and a needle, the disc being very easily isolated from the pustule. He believes this disc to have its clinical importance, as it enables us to diagnose true variola, and distinguish it from varioloid, which is devoid of disc. Upon this point M. Vulpian addressed an elaborate communication to the Academy, showing that what M. Briquet regarded as a disc of fibro-plastic tissue of new formation had no existence—being, in fact, but a mass of macerated epidermic tissue. Indeed, he regarded M. Briquet's whole account of the variolous pustule as erroneous, and supplied himself a minute histological description of it. This, which is of great interest, we have not space to notice further, but the communication has been published in full in the French Medical journals of last Saturday.

M. Richet, on presenting, in the name of the author, to the Académie de Médecine a copy of Dr. Galezowski's new work, "Traité des Maladies des Yeux," delivered a little address that may be characterised as pre-eminently "French":

"The book which I have the honour of presenting to the Academy is, if I may be allowed the expression, a *French* work. I will explain. Ophthalmological science, since the arrival among us of our regretted *confrère*, Sichel the elder, seemed to have become *Germanic*. He imported into Paris the doctrines of the school of Beer, which he, so to speak, appropriated and taught to our students. The French Surgeons—Velpeau and Sanson among others—did indeed strongly protest, in their lectures on diseases of the eye, against those exaggerated pretensions of Outre-Rhin, which seemed desirous of seizing hold of everything. It was reserved to one of Sichel's *chefs de clinique*—to Desmarres, senior—to demonstrate that the science of ocular diseases was entirely French in its origin, and ought to remain French. M. Galezowski, a *chef de clinique* of M. Desmarres, has followed the traditions of his master, and, more generous than one of his predecessors, who has since gained great celebrity—Von Graefe—he dedicated his first work to his Professor, while Von Graefe has always studiously abstained from mentioning him in any of his numerous writings, in this way showing how much he feared lest the source whence he had drawn his instruction might be recognised. This treatise of M. Galezowski, besides the merit of doing full justice to the French School, and placing its works in the light, has another which assures it a distinguished place in our Medical literature, which is—that it is *au courant* not only of German, but also of English and Italian science."

THERE are in Birmingham whole streets in which absolutely every house belongs to the working-class. 13,000 houses are owned by working-men, and it is certified that these are the healthiest districts in the town.

REVIEWS.

The Science and Practice of Surgery. By FREDERICK JAMES GANT, F.R.C.S., Surgeon to the Royal Free Hospital. London: J. and A. Churchill. Pp. 1265.

CONSIDERING the number of excellent books on general Surgery in the English language which, if not of very recent date, have—some of them, at least—gone through quite recent editions, it might appear a work of supererogation on the part of any Surgeon to add another to the list. This has not, however, been the case with Mr. Gant, for the volume before us has its own individual merits as a text-book for students and Practitioners, and is no superfluous contribution to our Surgical literature.

Mr. Gant is known to the Profession by his previously published works; but though the present work contains the author's Lettsomian Lectures on Excisional Surgery delivered this year before the Medical Society of London, it is quite distinct from his "Principles of Surgery," to which, however, reference is occasionally made.

While in the latter work he systematically *expounds* the leading doctrines of *all* diagnosis, prognosis, and therapeutics from an examination of general pathology, in the "Science and Practice of Surgery" he systematically *describes* the individual injuries and diseases as to their pathology, course, symptoms, and treatment. Mr. Gant is fully alive to the importance of anatomy, physiology, and the whole field of Surgical pathology in forming a basis for the correct practice of Surgery, and he nowhere spares himself the trouble either of stating fully the pathology of the injury or disease he is describing, of interweaving physiology with pathology, or of introducing the normal anatomy of parts, when by so doing he can make his subject more perfectly understood, or more conveniently describe it. Thus, in the chapter on Inflammation our memory is refreshed with a summary of the processes of nutrition, growth, and development—an appropriate, if not necessary, introduction to the study of so complicated a subject.

Again, not only is the anatomy of hernia and lithotomy fully described, and the anatomy of the arteries, in connexion with ligature, detailed with such fulness and conciseness as to render unnecessary any reference to special works on anatomy for information on these subjects, but the structural relations of parts are everywhere brought into service when they can explain symptoms, assist in diagnosis, or guide treatment. No undue stress is, however, laid by the author upon the value of anatomy even in its application to operations. In his introduction he says:—"Surgical anatomy is modified throughout by constant association with pathological conditions in the performance of any operation. Such an association will tend to correct the *purely* anatomical impressions of the student, and to safely guide the operating Surgeon."

After mentioning the very few occasions on which an operation is done through healthy structures, and away from the seat of injury or disease, he goes on to say—"On all other occasions the physical properties and relations of parts disclosed during an operation are then so changed by disease as sometimes scarcely to admit of recognition; and thus it is that anatomy *plus* certain pathological alterations, or the *pathologico*-anatomical conditions of the body, are those with which the operating Surgeon is concerned." But pathologico-anatomical conditions are not the only circumstances which interfere with the appearances to which the anatomist is accustomed. Life itself vastly alters all the tissues seen even in the simplest operation—"thus the colour, consistence, size, and shape, etc., of the various parts of the body are presented to the Surgeon when modified by the twofold conditions of disease and life combined. These together may be termed Pathology, and not pathological anatomy, which represents only *dead* structural disease. Pathology conjoined with anatomy is, therefore, our guide during Surgical operations."

These quotations will suffice to indicate the comprehensive treatment which his subject receives at Mr. Gant's hands.

The work is divided into two parts: the first, on General Pathology and Surgery, occupies 241 pages, and includes the forms of disease common to all parts of the body, such as inflammation and tumours. Part II., on Special Pathology and Surgery, is subdivided into two divisions—the first, *relating to textures*, comprises burns, aneurisms, fractures, and diseases of bone, etc.; the second, *relating to organs and regions*, commences with those of the head and proceeds downwards, and embraces all the special branches of Surgery, such as the eye, ear, and teeth. Appended to the end of the volume is a Guide

to the Examinations for the Membership and Fellowship of the Royal College of Surgeons, written from personal observations during the years 1870 and 1871, which shows the nature of the preparations, instruments, and questions, both written and verbal, submitted to the candidates at the first and pass examinations. This is sure to prove of great assistance to those preparing for the examinations at the College.

Of course, in a work extending over so wide a field, many sources must contribute to its accomplishment. Acknowledgment is, however, made of the free reference to other authors; and so numerous are the references (in foot-notes) to standard works and well-known writers on all unsettled or disputed points, that the reader sees at once where to go to extend his knowledge with respect to them.

In Part I., under the head of Diseases of Nutrition, after a lengthy and instructive chapter on Inflammation, the subject of "Tumours or Morbid Growths" is treated of under two heads—(α) Localised or Non-infiltrating Growths, and (β) Infiltrating Growths. Here the general and special characteristics in respect to their structure and vital endowments are described; but they are again referred to in Part II. under the head of Diseases of different Structures and Regions, in order that the points to be attended to in their diagnosis may be brought out side by side with the other affections of the parts in which they occur.

To complete the pathology of nutrition the various forms of degeneration should have been described; but Mr. Gant having treated of these in his "Principles of Surgery," contents himself here with an enumeration of the several kinds which, as he correctly says, are of as much importance to the Surgeon as to the Physician.

Eight diseases are grouped together under "Diseases of Contagious Origin." These include some acquired from contact with a poison in the human species and others in animals. This arrangement is artificial and unsatisfactory, since it places together, and in association with each other, diseases of such different nature as syphilis, pyæmia, and hydrophobia.

The reparative processes in wounds and fractures are in their places carefully described. In the chapter on "Wounds of Arteries," certain particulars respecting the application of ligatures are given, which ought to be read and known to every Dresser and House-Surgeon, although, judging from the bungling manner in which one sometimes sees a ligature applied, the inference is that the significance of such particulars has not been generally understood.

Mr. Gant is a declared advocate of torsion, "scarcely ever employing ligature to any artery, of whatever size." The method he adopts is that of simply twisting the end of the vessel several times, but short of detaching it. He says of acupressure that experience has shown that the clot which forms and plugs the vessel when the needle is withdrawn is sufficient, "without the additional security of lymph-deposit and sealing of the vessel as at the line of ligature or twist;" but he adds, "assuming the liability to the occurrence of secondary hæmorrhage to be about equal after either of the three methods of Surgical treatment, the tendency to *primary union* of the flesh-wound, and the prevention of *pyæmic infection* of the system, must be very different. Torsion has decidedly the advantage over either ligature or acupressure in regard to both these very important considerations. The twisted portion of an artery not being killed, as its subsequent adhesion shows, no sloughing of the end of the vessel ensues when this portion is allowed to remain in the wound—yet this event necessarily and intentionally ensues after the application of ligature, or accidentally by prolonged acupressure; and no foreign body is allowed to remain in the wound, for however short a period, to possibly provoke suppuration, as after both these methods of treatment." These are strong points in favour of torsion, and deserve the consideration of those Surgeons who still mistrust every means of controlling divided arteries excepting the ligature. The twisted end of the artery, when torsion has been used, has been asserted by some Surgeons of considerable eminence to act as a foreign body; but observation appears to have settled the fact that there is no necessity so far to detach as to kill the twisted portion.

A short chapter on Morbid Cicatrices is of value, as it brings at once under the notice of the reader the various results of faulty modes of healing of skin-wounds, and also the subsequent diseases of the healed surface. But the most important portion of the book is that which treats of Excisional Surgery. It contains a vast quantity of information respecting the results of operations, as obtained by the author from a large number of public and private sources. After giving a short historical sketch of the operation of excision, he points out its relation to the general treatment of joint disease, and gives the following indications of treatment:—"The non-operative comprise—(1) Preservation of the joint, functionally, by restoration of its mobility; (2) preservation of the joint, with loss of its mobility, by anchylosis. The operative indications are—(3) Preservation of the limb and life by sacrifice of the joint, with anchylosis—excision. (4) Preservation of the life alone, by sacrifice of the limb—amputation. The question of operative interference, it will thus be seen, can arise only when the joint disease is already past the control of the first indication of treatment—restoration of the mobility and functional use of the joint; and when it has become subject to the second indication—preservation by anchylosis. But this result is also the object of excision. The true comparison, therefore, of joint disease is with the probability of *natural* cure by anchylosis. Such comparison should have reference (1) to the joint . . . . and (2) the liability to life, or the comparative mortality of the natural cure by anchylosis, and that resulting from excision, must also be considered."

Excision has been often compared with amputation, and, so far as the mortality after the operation is concerned, this comparison is not perhaps unjust. As to the time required for a cure, the true comparison is, as Sir W. Fergusson has pointed out, with compound fracture; no comparison, however, can rightly be made between the two as *alternative* operations, merely because the joint disease is incurable without operative treatment. On this last point Mr. Gant remarks, "The comparatively early period for excision is too early for amputation; and the comparatively late period for amputation is too late for excision. When either operation becomes justifiable for joint disease, the other should not be entertained." The diversity of opinion amongst Surgeons in regard to the propriety of excision *versus* amputation, springs, Mr. Gant thinks, "from a twofold view of the nature of the state in question. Thus, scrofulous disease of the knee-joint may be considered incurable without operative interference, when the disease has advanced to destruction of the articular cartilaginous surfaces of the tibia and femur without the supervention of anchylosis, so that the joint has become functionally useless; or the same disease may not be regarded as incurable until it has advanced to a further and even to an extreme state of disorganisation."

We congratulate Mr. Gant upon the result of his labour, which must have been very considerable and prolonged; he has produced a book which reflects great credit upon his own ability and enterprising spirit, and which will be of service to the Profession. It is profusely illustrated, although, as is fairly acknowledged in the preface, only a portion of the woodcuts are original; for many of them Mr. Gant is indebted to the standard works of Astley Cooper and Liston. These excellent representations, of course, greatly enhance the value of the book. We do not say, however, that there are no faults to be found in it, for there are evident omissions. We do not always approve of his classification and arrangement of subjects, and are not infrequently annoyed by his punctuation—especially his constant use of semicolons—which sometimes renders his meaning obscure. But these do not detract seriously from the general merit of the work; and it must be remembered—

> "Whoever thinks a faultless piece to see,
> Thinks what ne'er was, nor is, nor e'er shall be."

On the Use of the Ophthalmoscope in Diseases of the Nervous System and of the Kidneys, etc. By T. Clifford Allbutt. M.A., M.D. Cantab., Physician to the Leeds General Infirmary, and Lecturer on Practice of Medicine, etc. London and New York: Macmillan and Co. Pp. 405.

The book now lying before us is one well deserving general attention, not only because it is the work of a highly intelligent and eminently scientific Physician, one whose opinion is always worth having;—it is not on that fact alone, nor on any similar fact—but because Dr. Allbutt has devoted his great abilities to the elucidation of a literally dark subject that this work is so well deserving of this attention. Those only who have striven to use the ophthalmoscope systematically in ordinary Physician's work can tell how difficult it has been to put the right interpretation on the phenomena observed. They also know that there was no book to which they could refer for aid in their difficulties—for the use of the ophthalmoscope in ordinary Medicine is but of yesterday. To such men as those we have just referred to, this book will be specially welcome, whilst many to whom the ophthalmoscope is an instrument unknown will be encouraged to take it up and work with it now that its value is thus made clear before them.

The author begins with an account of the introduction of the ophthalmoscope into ophthalmic practice, and its gradual application to the elucidation of other than purely ophthalmic problems. Next he speaks of the mode of using the instrument. For general use he commends a metallic mirror, and at least two object-glasses. He condemns all fixed apparatus as useless and cumbersome. Here also he gives a word of practical advice, which Physicians will do well to bear in mind. When learning to handle the apparatus it is well to operate on an eye whose pupil has been dilated by atropine; but the sooner dilatation can be dispensed with the better, for patients do not like it, as the disordered accommodation remains long after the necessary examination, and normal vision is, consequently, interfered with. One speedily gets accustomed to dispense with the use of atropine. The succeeding chapter is devoted to anatomical details, the most important of which seem to us to be the fact that the vascular supply of the optic discs is connected with the brain system rather than with the retina, and that in the coverings of the optic nerve there is an actual prolongation of the arachnoid interspace.

The anomalies of the optic disc are next considered; and they are well worth attention, for to the beginner they are most puzzling. Those here alluded to are—the varied distribution of the retinal vessels, the persistence of the hyaloid artery, pulsation of the veins of the retina, excavation of the disc similar to that existing in glaucoma, but physiological, and finally those troublesome anomalies in the colour of the disc. These last have an important bearing on the subjects next discussed—which are hyperæmia and anæmia—for it takes some experience to say what is physiological or natural, and what pathologic or the result of disease-change. Œdema and ischæmia are almost equally annoying, for the latter is by very many confounded with inflammation of the disc, under the common but perplexing title of optic neuritis. On this account we find here the term neuro-retinitis introduced, to mark out the truly inflammatory process, the term ischæmia being applied to conditions superficially somewhat similar, but due to vascular arrest alone. The term chronic optic neuritis is here retained, not for the consecutive atrophy it has sometimes been confounded with, but rather for the subacute inflammation which precedes the white atrophy. The next two conditions—retinitis and perineuritis—are of great importance Medically, but the two following have an almost equally important bearing on the daily practice of our Profession; these are, consecutive atrophy and primary atrophy, between which the diagnosis is not always easy.

Next are considered the relations of these conditions to intra-cranial disorders, and the diseased conditions thus considered are —epilepsy, chorea, mania, dementia, meningitis, concussion and fracture, hydrocephalus, tumours and periostitis chronica, atheroma, softening and hæmorrhage, cerebritis, abscess and sclerosis, and, finally, general paralysis. We can hardly refer to all of these conditions, but to some of them we may. Epilepsy during the intervals is marked by a somewhat vascular disc, the vessels being generally larger and fuller than usual. This corresponds with the results of our own observations. In chorea there is no change, as a rule. In acute mania, just after a paroxysm, there is slight hyperæmia or pinkness. In dementia there are many changes, but none very marked. In meningitis, especially the tubercular form, the ophthalmoscope is exceedingly useful in enabling the Physician to come to an early diagnosis—for, long before there may be other symptoms, congestion of the optic papillæ may give warning of the approaching danger. In hydrocephalus, too, we have the ischæmic condition at an early stage, but later on only simple white atrophy. It is, however, with regard to intra-cranial tumours that most work has been done by the ophthalmoscope—so much, indeed, that we can only refer to the subject here, without entering into the discussion on it, as that would take us farther than we care to go; for though much has been done in this field, very much more requires to be done. In general paralysis of the insane there is a great tendency to simple white atrophy of the discs. Diseases and injuries of the spinal cord are often enough followed by altered conditions of the optic disc to show a connexion between the two, and some interesting facts have been adduced in support of this view; but much remains to be done before the ophthalmoscope can be rendered of much use in the discrimination of these.

There is one morbid condition within the category of internal disorders which in a wonderful way affects the eyes, and consequently from these may frequently be drawn valuable conclusions as to its existence and non-existence. The disease is albuminuria, and the morbid condition of the eye is albuminuric retinitis; this, indeed, may exist in a marked degree without any appearance of dropsy, and in itself constitutes a sufficient reason why Physicians should cultivate the use of the ophthalmoscope. So, also, there is a leukæmic retinitis, which presents peculiar and characteristic symptoms. Toxic amaurosis we have not time to touch; and though we would fain linger over what might be called the classic story of embolism of the arteria centralis, space and time will not permit —and so we must take leave of Dr. Allbutt. His book, it will be seen, is not a perfect history of the morbid conditions of the retina in all kinds of disease: for such a work no sufficient material exists.

The great merit of this work is, that it clears the way for other workers. By its aid men will no longer be compelled to work for years in the dark—they will have a definite standpoint whence to proceed on their course of observation. And we think it well to say a word on the spirit of the book, which is to us most pleasing. It is not a book of controversy; in it all fellow-workers are spoken of in the most loving spirit. From the kindly dedication to Dr. Hughlings-Jackson to its "Finis," this treatise has only words of encouragement to those workers for whom the author lays bare all his stores—the accumulation of much hard work both in the field of observation and in that of research. Did it not seem unkind, we should be tempted to desire that a new edition might be deferred until these stores had fructified and produced the ample harvest of exact knowledge the labour spent in their acquisition deserves.

NEW BOOKS, WITH SHORT CRITIQUES.

Three Lectures on the Preservation of Sight. By David Smith, M.D., M.R.C.S.E., Extra-Academical Lecturer on the Eye, Glasgow. London: R. Hardwicke. Pp. 92.

*** These lectures were delivered before a lay audience last May, and are decidedly above the average of such lectures; they give a fairly accurate account of the phenomena of vision. We notice, however, something in the preface which seems like a puff, though quite possibly not so intended.

Food, Water, and Air. Edited by Arthur Hill Hassall, M.D. No. 1, November.

*** This is the first number of a serial edited by Dr. Hassall, which promises to be of much service to the public, and not without interest to the Profession. The chief subjects discussed, and which are treated with much ability, are as follows:—"Has Adulteration Increased or Diminished of Late Years?—Milk and its Adulterations—The Standard of Purity of Water—On the Danger of Reliance on the Permanganate Test for Water—Dr. Sanderson's Experiments on the Growth of Microzymes in Water—On the Utilisation of Sewage." In addition to these there is an article on "Food, Water, and Air," and a *résumé* of miscellaneous intelligence bearing upon the public health. The work is to appear monthly, and is 3d. in price.

THE HAMPSTEAD HOSPITAL INQUIRY.

Thirty-second Day.

On Thursday the evidence of a meat-contractor, Mr. Hughes the nurse, and of Sister Frances, the superintending Sister, in favour of the Management of the Hospital, was taken. Sister Frances gave a full account of the duties she performed—namely, the superintendence of all matters relating to the womanly care of the patients, nursing, charge of linen, laundry-work, and the like. She was taken over the various charges which have been gone over in previous evidence, and she spoke of them as not being in accordance with fact.

On the thirty-third day some other of the ladies who had worked in the Hospital were examined, and gave evidence in favour of the Management. Mr. Collins made a speech in support of the complaints, and the Court afterwards broke up.

Vichy in 1870.—Although the arrivals took place somewhat later, the visitors were very numerous, and the place was as gay as usual. The total number of visitors amounted to 18,857—16,700 of the number being French and Algerians, 836 British, 197 American, 183 French Colonials, 44 Belgians, 79 Dutch and Belgians, 103 Russians, 215 Spanish and Portuguese, 92 Italians, 41 Poles, 21 Prussians, and 217 Swiss.

PROVINCIAL CORRESPONDENCE.

IRELAND.

Dublin, November 7.

The Introductory Lectures.

The opening of the session in the various Hospitals and Medical Schools of our city has this year been marked by comparatively little stir. In fact, before many more sessions have passed by it is more than probable that the time-honoured "introductory" will have become generally, if not altogether, obsolete. The tendency seems to be to make the close rather than the commencement of the yearly period of study an occasion for advising, and of congratulation. The annual distribution of prizes at our Hospitals and Schools is gradually taking the place of the old-fashioned opening-days. And perhaps this is as it should be. The display at the "introductory" was too often followed by an anti-climax of lessening energy and industry throughout the remainder of the session, and only in exceptional instances was there a goal at the close to which the hard-working student might strive to attain. The Royal College of Surgeons this year took the lead in opening the session, an introductory lecture having been delivered on October 30, by Mr. James Stannus Hughes, Professor of Surgery to the College. The lecturer commenced by alluding in laudatory terms to the late Surgeon Collis, to whom, he said, the Royal College of Surgeons was largely indebted for the high position it had attained. Having referred to the improvements which had been effected in Surgery of late years, and also to the triumphant return of Sir Dominic Corrigan, a leading member of the Profession, as Member of Parliament for the city of Dublin, he entered into a technical statement, containing for the most part advice to young students, as to the books they should study, the companions they should select, and the necessity for unremitting industry in their work. In conclusion, he trusted that all the students would adhere to the declaration they were obliged by Act of Parliament to make before entering the College—namely, by every means in their power to conduct themselves so as to uphold the dignity of the institution.

On the 1st inst., Mr. W. H. O'Leary commenced the courses of lectures at the Ledwich School of Medicine by an address of high merit, its subject matter having reference chiefly to the manner in which young men then entering on the pursuit of a noble Profession should pursue their studies with the best advantage to themselves and their teachers.

At the Adelaide Hospital, a lecture was given on the 3rd inst. by Dr. John Kells Barton, one of the Surgeons. The different members of the staff, a large number of students, and several visitors were present. Of Dr. Barton's address I hope to give some account in a future letter.

On Saturday, the 4th, Dr. Fleming inaugurated the session at Dr. Steevens's Hospital and Medical College. In the course of his remarks, the lecturer congratulated the students on their past success, and expressed a hope that the present session would enable them still further to distinguish themseves. The usual distribution of prizes subsequently took place. To Mr. Frederick Warren was awarded the Senior Medal. The prize of the second year was carried off by Mr. David Bookey, and that of the first year by Mr. Emerson.

On the same day, Mr. Robert Cryan lectured at the School of the Catholic University, Cecilia-street.

The introductory address at the Meath Hospital and County Dublin Infirmary was delivered on Monday morning, the 6th inst., by Dr. Arthur Wynne Foot. Amongst those present were—The Right. Hon. the Lord Mayor; Dr. Hudson, President of the College of Physicians; Dr. Wharton, President of the Royal College of Surgeons; Dr. Stokes, Regius Professor of Physic in the University of Dublin; and G. H. Porter, Esq., Surgeon to the Queen and Senior Surgeon to the Meath Hospital.

Dr. Foot commenced by alluding to the fact that frequently, of late years, the opening sentences of the introductory addresses in this Hospital had consisted of obituary notices, and expressed the general gratification which was felt that on this occasion the prelude was not to be pitched in a minor key. He alluded in graceful and delicate terms to the circumstance that he occupied the post of Junior Physician, vacated by the retirement of Dr. Hudson, now the President of the College of Physicians, rather as his representative than his successor, and regretted that the presence of his predecessor precluded him speaking of him as he could and would. Alluding to the conditions which have led students to regard these annual orations as the capital affliction of human patience, while not expecting that he should escape their criticism in many particulars, he assured them that their ears should not be re-assailed with stock quotations from Bacon and the poets. Declining to handle any topics of intense Professional interest, or even national importance—such as Medical ethics, or State Medicine—he preferred to dedicate the occasion to the interests of the youngest student now beginning to prepare himself by Hospital attendance for the future business of his life. He offered to take him, step by step, over the course he had gone himself, offering, as a guarantee of his sincerity, that, were he in their position, and commencing life, he would, a second time, adopt the plan he now proposed to them. If his food was poisonous he had tasted every dish, and regarded his position there that day as a convincing proof that his method was, at least, worth their trial of it. He advised them to devote themselves at first to the art or practical part of Medicine, which could be learned nowhere but by the bedside of the sick, and nohow but by personal attendance on them, and written narratives of their illness. The courtesies of the sick-room—no mean accomplishment—were to be upheld here as well as in the chambers of the wealthy. High personal character—a most influential circumstance in deciding their future career—if now acquired, would prove a powerful ægis in a life peculiarly assaulted by temptations of various kinds, and would surround them with an atmosphere pure enough to disinfect even the pestilential breath of calumny. "Work" was the password to success, the key to unlock every difficulty, the thread of Ariadne in the maze of life; but work was not to be of an epileptic kind—in convulsive fits, followed by acute attacks of idleness, which did not exhaust their susceptibilities to fresh ones, but, by repetition, left the mind a desert, with no oasis. Their energy was not to be the flare-up of lighted straw, but a banked-up furnace of dull but sleepless determination. He admitted that he was taking his pupil along a toilsome road; the course involved severe labour, unless they commenced it at once, during their first year. If they did that, and would persevere, in the face of utilitarian questions of the *quid utile* and *cui bono* breed, and in spite of the apparent slowness of their progress, they would find that they could do what others had done before them; their knowledge and experience would hourly accumulate around them with the rapidity and silence of thickly falling snow, and their faith in the infallibility of work would soon begin to see some realisation of its hopes. All well-fed active streams of work find their way, sooner or later, to the great sea of knowledge, and, rising again from that sea, rain down such honour, emolument, and rank as the Profession, the public, or the State have it in their power to bestow. The scientific part of Medicine was to be studied as carefully as the art; but later, because the practice of Medicine was the fundamental necessity. Science, as applied to Medicine, meant the physical sciences, and not logics, ethics, and metaphysics. Physical science was striding about in the arena of Medicine, dealing death-blows to quackeries—doing what the art of Medicine could not do; and opposition to the influence of science would be as vain as an attempt to stop the motion of the world, and they would only make a Juggernaut of themselves under the resistless wheels of Progress. Alluding to the necessity of erudition in Medicine, as being a Profession related to all human knowledge, and to the fact that the writings of many Medical men were not properly appreciated in their lifetime, he observed that the brightest epiphanies of intellect were sometimes too strong for the eyes—like comets, they blaze and disappear before we have time to wonder at them; but they leave behind them in their works a glittering train of luminous thoughts, at which men marvel as they read when the dazzling influence of the meteor is withdrawn. The art, the science, and the erudition of Medicine were to be cultivated in due succession, and amalgamated as much as possible; they were thoroughly compatible with each other, although leaders in each section had contrived to bring the three into a seeming collision, as if they were essentially inimical. They should refuse to be representative men in any one of these departments, if they looked forward to the practice of their Profession in its widest usefulness, lest they should become persons of one accomplishment, who, like the *homo unius libri*, were usually disagreeably perfect within their narrow circle, and therefore apt to be gloomily arrogant or testily vain. The purely practical man who looks upon science in its application to Medicine as a modification of the black art, when pressed by the scientific man in one of the unseemly and unprofitable discussions which arise from this sectarianism, runs into his castle of experience, whence nothing

will induce him to sally out. On the other hand, the scientific man, when hot pressed by the practical man, takes refuge in a mist of the technical phraseology of the sciences, and escapes like a cuttlefish, in a cloud of ink. The faith of the pure reader is bibliolatry; an abject slave to venerable tradition, he never ventures to question the correctness of the most fossil dogmas; his independence, parched by the east wind of authority, withers from want of cultivation, and leaves him an unfortunate character, unstable as water, unable to excel. The reconciliation of the three lies in the admission of faults on each side. Practice must acknowledge the utility of science, science must recognise the fundamental importance of practice, and both must allow that erudition is a graceful ornament, and an indispensable accomplishment. Referring to the threefold object of Medicine—the cure, the palliation, and the prevention of disease—he stated his belief that at no very distant time the prevention of disease would occupy the mind of the public and of the Profession in a degree anticipated by few at present. He declined to discuss the question on the present occasion how far preventible diseases are the moral police of the Almighty, and, as such, to be left to work out their own ends; but was not disposed to regard plague, pestilence, and famine as unavoidable tortures inflicted by wrathful Omnipotence upon His helpless handiwork. Our present knowledge of the causes of the propagation of cholera was a striking and solemn illustration that the threat of Rabshakeh enjoys a wider fulfilment than was ever dreamed of by the Assyrian captain. In the midst of luxury and in the centres of civilisation that disease was spread, even among the high and noble, by an unconscious performance of the act which was held out to the Jews as the dire alternative of their refusal to capitulate to Sennacherib. In some concluding remarks addressed to the senior students, he counselled such of them as had great attainments to preserve their lustre by humility, remembering that the great sea of knowledge was unfathomable, and that the wisest of men could not, during his whole lifetime, do more than wet his ankles on its shore; they must be patient if success seemed slow to come, because the crowns of kings would not fit the brows of infant princes. They should scorn every shape and form of humbug, and abhor and dread it as the tunic of Dejanira. They might be sorely tried by the sight of reputation and confidence unfairly withheld, and more unfairly bestowed, and begin to think that there was some truth in the comparison of the world to an old woman who mistook every gilt farthing for a gold coin, and who, finding herself so often cheated, at last made up her mind to trust nothing but the common copper. Malice and Envy were positive agents in this wicked world; Envy moved parallel to Success, and lost no opportunity of stabbing her in the flank. The Medical Profession was not exceptionally free from clashing interests and variety of opinion, and if they struggled for a foremost place they would have to learn that "he makes no friend who never makes a foe." Their own nobleness of character, their instinctive hatred of flattery and intrigue, their very frankness, might throw most unexpected obstacles in their path, and teach them that, though they might deserve success, they might not command it. Whatever their fortune might be, let them endeavour to keep straight in the honourable paths of Medicine, worn by the footsteps of the good and great; never departing from them for the sake of an evanescent popularity—answering the invitations of profit or notoriety with *Retro Satanas!* whenever they were counter to the spirit of their Profession, since it would be better for them, when the wheels ran down, to slip into their graves unnoticed than to have attained to eminence by unworthy means. The address closed with a final appeal to those who were commencing to learn Clinical Medicine at the Hospital this winter, that they would enter on the path of education indicated, and that, cherishing a strong faith in the everlasting power of work, they would persevere until they found their labours crowned with some one or other of the many diadems of success.

BIRMINGHAM.

November 6.

The Late Mr. Langston Parker.

The Profession and the community at large here have just sustained a loss by the death of Mr. Langston Parker, the eminent Surgeon of this town. Mr. Parker had been labouring under enfeebled health for several years past, but at length caught a cold, which carried him off from syncopal asphyxia. An impression has gained ground that he died of apoplexy—owing, perhaps, to his bodily conformation, which was handsome, but full and thickset, while his cheeks were florid and puffed. He was, however, at the last extremely pale, while his voice was querulous from excessive debility. He did not die in bed, but sitting on the sofa; and his mind was unclouded almost to the very last. He was the son of an old Practitioner here, and succeeded to his father's practice many years ago. He distinguished himself in the literature of his Profession by several papers in the Medical periodicals, and also by works on dyspepsia and cancer; but his chief reputation is based on his work on Syphilis, which has become the text-book on the subject, in which he was most at home, and on which he was largely consulted. The chief characteristics of Mr. Parker's mind were quick perception and decision, along with concentration of thought and purpose. His thoughts were very rapid, and his diagnosis soon made His memory was remarkably retentive: he could not only remember, after reading a work, the general meaning and expression of the author, but the very words themselves employed, even to the minutest particular. This wonderful faculty of memory he exhibited before a friend a few days before his death in a remarkable manner. With an outward carriage which to strangers might indicate austerity and pride, he was found on acquaintance to be bland, kind, and considerate to a degree; and his exquisite knowledge, taste, and accomplishment in music showed the fine tone of his mind and sentiments, which made him a most delightful companion to those very few who were privileged to enjoy intercourse with him. His reading of both foreign and home Medical literature was very extensive, and it was not confined to Professional subjects only, but embraced general literature too, his favourite subject being the drama, upon which he exhibited a most extensive, accurate, and critical knowledge. He had delivered some lectures in public upon Dreams, Visions, and other Sources of Mental Delusion, which drew great attention. They were published at the time in a periodical, the title of which at present does not occur to us, but we think it would be desirable that they should now reappear in a volume, if his representatives feel so disposed. He was entombed in the family vault at the ancient church of Aston-juxta-Birmingham. The chief mourner was his son and only surviving child, Mr. Adams Parker; and he was borne to the grave chiefly by Birmingham Physicians and Surgeons—namely, Dr. Bell Fletcher, Dr. David Nelson, Dr. George Vernon Blunt; Messrs. Valentine Walshman, Blake, Oliver Pemberton, George Yates, Thomas Thompson, Surgeons; and Mr. Hirnie, of Liverpool, his nephew through marriage. A considerable number of private and Professional friends also attended at the churchyard.

GENERAL CORRESPONDENCE.

CASES AT ST. THOMAS'S HOSPITAL.

Letter from Mr. Le Gros Clark.

[To the Editor of the Medical Times and Gazette.]

Sir,—You referred recently to two cases on which I operated in St. Thomas's Hospital, and it has occurred to me that it may be interesting to insert in your journal the sequel of these cases.

In the elderly man whose penis I amputated, the enlarged inguinal glands have almost disappeared. The wound is healing kindly, and the patient is free from suffering. He has been provided with a short elastic catheter, with a shield, which he is directed to introduce from time to time. The period when contraction of the orifice of the urethra is most to be dreaded, is *after* the stump is actually cicatrised—at least, such is my experience.

The phthisical patient whose thigh I amputated has gone on uninterruptedly well. He scarcely felt the shock of the operation, and had no febrile reaction, but began at once to sleep well and take his food with appetite, and recovered spirits. The stump is now healed, but of course the condition of the lungs is *in statu quo ante*. I am, &c., F. Le Gros Clark.

St. Thomas's-street, S.E.

PHTHISIS IN AUSTRALIA.

Letter from Mr. William Thomson.

[To the Editor of the Medical Times and Gazette.]

Sir,—In a recent number of the *Medical Times and Gazette* it is stated that the statistics given by me on phthisis in Australia were disputed by the *Australian Medical Journal* as greatly

exaggerated. To enable you to satisfy yourself and your readers I send herewith the Registrar-General's return for July last (the latest published), by which you will find that the deaths from phthisis in Melbourne and suburbs during that month were 15½ per cent. of the total deaths from all causes. I also send the *Argus* of this date containing a report of the deaths in the Melbourne Hospital for the past month, in which it is shown that of 29 deaths in that institution from all causes 14, or 50 per cent. were from phthisis.

I may intimate that as the 2126 deaths in five years and a half were taken exception to, because it had not been shown that the patients had not come from the country for Hospital aid, I have now taken *all* the statistics for the whole colony during the same five years and a half, and find that in addition to the 2126 given there have been 2143 more, making over 4200 in all. These will soon be tabulated, published, and forwarded to you as were the former.

I am, &c.,

South Yarra, Sept. 9. WILLIAM THOMSON.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, OCTOBER 24.

MR. CURLING, F.R.S., President, in the Chair.

MR. LE GROS CLARKE read notes of

A CASE OF LARGE BILIARY CONCRETION IN THE ILEUM.

The author gave the details of a case occurring in a patient, aged 58, who was seized with abdominal pain and bilious vomiting, accompanied by constipation. A hard tumour was to be felt in the right hypochondrium. There was no abdominal tenderness or distension. On the eleventh day the vomiting became stercoraceous. Two days later the bowels were open, and the vomiting ceased until ten days later, when it recurred, and continued at intervals during a week. For three weeks after this time the bowels acted daily, and there was no sickness. The patient was then seized with severe abdominal pain and vomiting; the abdomen was tender, especially over the region of the cæcum, where a hard tumour could be felt. Death took place two months from the commencement of the first attack. At no period of her life had the patient suffered from jaundice. The post-mortem examination revealed the existence of extensive peritonitis. Two large gall-stones occupied the ileum close to the valve. An ulcerated opening in the small intestines had permitted the escape of several small gall-stones into the peritoneum. The gall-bladder was healthy; there were no adhesions between it and any portion of the intestines. There was no trace of any ulceration either in the gall-bladder or in the neighbouring intestines. The concretions measured one inch in length and four inches in circumference. They seemed moulded to the shape of the ileum. On examination, it was found that the stones were composed of 95 per cent. of cholesterine, and that nothing had been added to them in the intestines. The gall-ducts were dilated and thickened. The author drew attention to the singular absence of any proof that these concretions had passed by ulceration from the gall-bladder to the abdomen, though this is the only way in which such large bodies could have entered the intestines.

Mr. DE MÉRIC asked what was the diagnosis as to the cause of the obstruction. He had been consulted in a somewhat similar case, where, however, there was no post-mortem, so that they were left in the dark as to its exact causation.

Dr. A. P. STEWART remembered a patient in Middlesex Hospital with obstinate stercoraceous vomiting. No relief could be obtained, and after death a gall-stone as large as any of those exhibited was found impacted in the ileum. It was smooth and rounded, and constituted a complete barrier to the passage of any matter. There were distinct marks of ulceration in the gall-bladder and duodenum. The year before last he had seen a lady with intense pain; suddenly she obtained rest, but again the pain came on, and again relief followed. Next day she passed a calculus the size of a pigeon's egg. It was almost certain this had passed by the ductus communis.

Dr. HABERSHON said such cases were interesting for their rarity and the difficulties of diagnosis. Some years ago he had a somewhat similar case in a lady over 50. She had pain and bilious vomiting, and died in ten days. They found a large gall-stone in her jejunum. There had been no peritonitis, and no stercoraceous vomiting. There were adhesions between the gall-bladder and duodenum, but no regular cicatrix.

Mr. LE GROS CLARK said there had been great difficulty in coming to any diagnosis, and that could only be come to by way of exclusion. There were no inflammatory symptoms, and no signs of malignancy, so he considered the obstruction due to seybala, and directed his treatment accordingly.

Mr. J. WARRINGTON HAYWARD read a paper

ON ETHER AND CHLOROFORM AS ANÆSTHETICS.

The paper commenced by stating that, it having been suggested to the author that the statements of Dr. Bigelow and other American Surgeons showed that ether as an anæsthetic had been to our detriment neglected, he had, during the past year, practically investigated the subject, and had arrived at the conclusion that ether was, for several reasons, to be preferred to chloroform. Of these reasons the strongest was the greater safety of ether, for by using it the chief, and in skilled hands, probably the only, cause of fatal cases of chloroform inhalation was excluded—*i.e.*, paralysis of the heart—ether being a stimulant to the heart's action, and uniformly improving the pulse. The second was that ether, from its stimulant quality, was antagonistic to the effects of the shock of an operation, which the author maintained, and quoted cases to show, was not abolished by rendering the patient insensible. A third was the greater liability of chloroform than ether to produce after-sickness. The principles and mode of administering ether were then described, and it was shown that if these were attended to, the production of anæsthesia by ether was as easy and certain as by chloroform, and required but little more expenditure of time or the drug. The only cases to which ether was not so applicable were operations upon the mouth, in which an inhaler could not be used, and where it was necessary to readminister the anæsthetic as rapidly as possible without an inhaler. There were two appendices to the paper: the first consisting of a table of fatal cases from chloroform; the second of a table of ninety-seven cases in which the author had administered ether, including amputations, excisions, perineal section, lithotomy, lithotrity, staphyloraphy, vesico-vaginal fistulæ, ligature of piles, and other operations. Especial note was taken of the occurrence of after-sickness, and the only approach to it was that in one case, after an operation for recto-vesical fistula, the patient vomited once, an hour after the operation.

The PRESIDENT regretted that no notice had been taken of the proposal of the Society's Committee to use the mixed vapours of alcohol, ether, and chloroform.

Mr. SPENCER WELLS said the mixed vapours of ether and chloroform had been employed at Vienna, but it was found that the ether evaporated first, and that after it had gone the patient was drenched with the chloroform. He had long felt the objections to chloroform, especially as regards the vomiting it produced. This was particularly objectionable in many of the operations he had to undertake, especially in the abdomen and vagina. He had tried ether on the advice of Dr. Keith, of Edinburgh, but it was so troublesome that he was glad to take to bichloride of methylene. This he thought the best anæsthetic; after it sickness was rare. Some said it was only a mixture of chloroform and hydrochloric ether; that might be so, but as long as it suited his purpose he did not care what it was chemically. It was best given by Junker's apparatus.

Dr. DAY said he had frequently given bichloride of methylene for Mr. S. Wells, and was much satisfied with it. He entered at length into its chemical characters, and exhibited the apparatus he used.

Dr. C. KIDD said he had used chloroform, and ether too. He found the latter tedious. It was a good plan to put a patient under the influence of chloroform, and then keep up the anæsthesia by ether. Bichloride of methylene was not so good.

Dr. SANSOM said the data available did not admit of an accurate estimate of the relative danger of chloroform and ether. He differed from the author alike in his estimate of ether and chloroform. He could not call the former safe. Relatively, chloroform was more manageable and less nauseous than ether. He considered the great danger of chloroform lay in its depressing action on the heart; but this could be avoided. It was true ether and chloroform did not go off together, but alcohol acted by restraining them both. By injecting morphia, C. Bernard found that much less chloroform was required to produce anæsthesia. It was best to give morphia subcutaneously first, and chloroform afterwards, or to administer chloroform and alcohol together, or chloroform first and ether next, as he had first proposed some time ago.

Mr. Holmes said he had tried ether some years ago. It required twice the time chloroform did to produce anæsthesia; but this was an insignificant trouble if it were safer. He tried to favour the escape of the vapour by using a hot sponge, and it blistered the face of the patient. Violent convulsive movements were also induced by it in certain patients. Its relative safety was doubtful, for the statistics were more than suspicious. It was really impossible to avoid danger in the production of anæsthesia.

Mr. Brudenell Carter had tried ether on himself, and the taste of it hung about him a long time. This was an objection to its use.

Dr. Hunter said if they used other narcotics they must look to the lungs as well as to the heart. In one of these compound cases he had nearly met with a fatal result. It was best, he thought, to use morphia when the effects of the chloroform were passing away.

Mr. Clover remembered that sickness followed the use of ether when that anæsthetic was first used in this country. He had been in the habit of giving nitrous oxide first, and then ether, as the great difficulty was to get patients to inhale it freely. As to the giving of chloroform, the modes of giving it were of the utmost importance. He was convinced that a 4 per cent. mixture with one had a totally different effect from a 6 per cent. mixture.

Mr. Hayward, in reply, pointed out that he was no special advocate for ether. He had tried it, and he had been struck with the results as being different from those commonly reported. The evidence was rather in favour of its safety. If, therefore, it could be easily employed, it would be well to use it; and he had shown that it could. The pulse really improved under its use. He had seen the combined fluids used; they produced excitement. No peculiar unpleasantness was left behind by ether.

OBITUARY.

WILLIAM DANIEL MOORE, M.D. Dub., M.R.I.A.

It was with very sincere and deep regret that we, last week, briefly announced the death of this eminent and learned writer and Physician—one of the most persistent and untiring workers of the day. Born in 1813, he followed in the footsteps of his grandfather and father, and so early as 1826 entered on the study of the Medical Profession as the articled pupil of his grandfather, and afterwards of Dr. Charles Johnson. In 1828 he entered Trinity College, Dublin; but in the year following his University course was interrupted, and not resumed till 1840. He graduated in Arts and in Medicine in 1843, but in 1833 he had passed the examinations of the Apothecaries' Hall of Dublin, and in 1834 became a Licentiate of the Royal College of Surgeons, Edinburgh. In 1835, when only two-and-twenty, he sent to the Chemical Section of the British Association (which met that year in Dublin) a short communication "On a Peculiar Corrosion of Leaden Pipes from Galvanic Action, developed by the Contact of Organic Matter"; and in 1836 he published in the tenth volume of the *Dublin Journal of Medical Science* an interesting paper embodying a "Statistical View of the Principal Medicines prescribed in Dublin during the last sixty years." In 1847 he contributed to the *Dublin Quarterly Journal of Medical Science* a most able and learned "Outline of the History of Pharmacy in Ireland." While collecting materials for this article he "discovered, after much and difficult search, in the possession of the last Master of the then extinguished Corporation of Barber-Surgeons, the records, charters, silver seal, keys, etc., of the Corporation, bearing various dates between 1535 and 1827"; and these interesting historical relics were afterwards, through the kindness of Mr. Farrell, the son of the Master, secured by Dr. Moore for the library of Trinity College, Dublin. In 1849 the same journal contained the results of a series of experiments made by Dr. Moore to settle the dispute as to the coagulability of human milk by heat and acids, the conclusion he arrived at being, "that the casein of human milk forms with most acids two sorts of compounds, one of them soluble in water, the other insoluble, the latter being formed only where the quantity of acid is large in proportion to the casein," and hence the discrepancy of the reports of previous experimenters. In the following year he became a regular contributor to the *Dublin Quarterly*, and for many years not a single number of the journal appeared without some article from his laborious and unwearying pen—his translations and reviews "extending to books in the French, Italian, Spanish, German, Swedish, Danish, Dutch, English, and Latin languages."

But while possessing sufficient command of this remarkable and formidable list of foreign languages to make them all contribute food for home consumption, he devoted special attention to the Scandinavian and Dutch tongues, and was the chief—almost the only—interpreter between the British Medical world and the Medical writers of Scandinavia and Holland. He thus reviewed for the *Dublin Quarterly Journal* and for the *British and Foreign Medico-Chirurgical Review*—Professor Santesson's work "On Diseases of the Hip-joint;" "The Surgical Instruments of Pompeii and Herculaneum;" "The Endemic Diseases of Sweden;" "Midwifery in England, France, and Germany;" "The Metamorphosis of Tissue;" "Lehrmann on Absorption;" "Schroeder Van der Kolk on Cancer Cells;" "Clemens on Ozone;" "The State of Medical Science in Denmark;" "The Lunatic Asylums of Holland;" and a vast number of other works, his reviews being more analytical than critical, so as to place the opinions of the author well before his readers. He translated for the New Sydenham Society Professor Donders' great work "On the Anomalies of Accommodation and Refraction of the Eye," and Professor Schroeder Van der Kolk's essays on the "Spinal Cord," the "Medulla Oblongata," and "On Atrophy of the Brain"; and he contributed to our own pages, and those of other English and Irish journals, translations of a great number of valuable papers—such as Professor A. Retzius's "Anatomical Observations," Professor Santesson's "Cases in Surgical Practice," Dr. Withusen's paper on "Cachexia Exophthalmica," "Rasmussen on Sclerodermia," Fenger's essay "On the Masked Forms of Bright's Disease," Brünniche "On Emboli," and "Donders on the Constituents of Food, and their Relations to Muscular Work and Animal Heat." A list of his original contributions to Medical journals also would occupy a much larger space than we can afford; but we have said enough to show the remarkable and incessant diligence with which he laboured, and the high value of his work is too well known to need mention here. His devotion to science told but too soon and too sadly on his health and strength, and early in 1867 he began to suffer from symptoms of progressive muscular atrophy. For two years the progress of the disease was, happily, slow, but in the latter half of 1869 it took on a more rapid course, and before long he was unable even to stand. For the last seventeen months of his life he was entirely confined to the sofa and his bed, but even during that period he still worked on, and was all through his long illness, as throughout the rest of his life, a noble example of a hardworking, cheerful, learned Christian gentleman.

The value of Dr. Moore's labours was recognised at home and abroad. He was Hon. Fellow of the Swedish Society of Physicians, of the Norwegian Medical Society, and of the Royal Medical Society of Copenhagen. In 1860 he was appointed joint Examiner in Arts in the Apothecaries' Hall of Dublin, and in 1865 the Senate of the Queen's University in Ireland elected him to the office of Examiner in Materia Medica and Medical Jurisprudence in the University. He was a Member of the Royal Irish Academy, a M.D. of the University of Dublin, and M.D. *ad eundum* of the Universities of Oxford and Cambridge.

THE LATE DR. EVANSON.

We have received the following additional particulars respecting the late Dr. Evanson:—On the Thursday on which he died he had been slightly indisposed in the morning, and determined to remain in bed a few hours longer than usual; but about mid-day it was discovered that he had passed away tranquilly during sleep. Some five-and-twenty years ago Dr. Evanson was one of the most promising of the large circle of rising men who then gave to the Medical School of Dublin a European reputation. Forced to seek health in a different climate, he occupied himself in travelling for several years, during which many English persons of the highest distinction obtained the benefit of his skill in the Continental cities where he occasionally sojourned. Dr. Evanson's conjoint work with Dr. Maunsell on the "Diseases of Children" went through various editions and translations. As a poet his writings show that he was possessed of great kindliness of feeling and deep thought, added to a very large scientific and general knowledge. Several of Dr. Evanson's old Irish friends had a last opportunity of seeing him at the meeting of the British Medical Association, held at Plymouth, two or three months since.

LANGSTON PARKER, M.R.C.S.,

Died at his residence, Paradise-street, Birmingham, on Friday week, in his 66th year. His illness, although it had extended over several months, did not disqualify him for the exercise of his Profession, in the duties of which he was engaged so recently as the day before his death, and its termination was, therefore, somewhat sudden. He was the son of a Medical Practitioner in Birmingham, where, after completing his education at St. Bartholomew's Hospital and at the Hospitals in Paris, he commenced practice in 1830. Besides taking an active part in the affairs of the Philosophical Institution, to the members of which he delivered a very able course of lectures on "Dreams," he co-operated zealously with Mr. Sands Cox in the establishment of the Queen's College and Hospital. In the former institution he filled the chair of Anatomy for a quarter of a century, and was Honorary Surgeon to the latter for an equally long period, at the termination of which he was appointed Consulting Surgeon. Among his published writings may be mentioned a work on "Comparative Anatomy," another on "Diseases of the Stomach," and one on "Cancer." His best known work was on "Syphilitic Diseases." In private life Mr. Parker was of a most genial and kindly disposition: and, being a well-known and highly esteemed member of the Profession, his loss will be greatly deplored by a numerous circle of friends and others.

FRANCIS F. SEARLE, M.R.C.S.,

Died at Exeter on Monday week, at the age of 32. He survived his wife only a few weeks. He was a Fellow of the Geographical Society, and was formerly in the service of the Peruvian Government. In 1865 he took charge of an expedition sent to explore the Upper Amazon, which he penetrated farther than any other European had done before. His conviction was that the new country visited by him offered a healthier climate than any other tropical country, and greater advantages to European immigrants. Last year Mr. Searle read a paper before the Exeter Naturalists' Club, describing incidents of his voyages, the appearance of the places he visited, and the manners and customs of the people. Whilst in South America, Mr. Searle suffered greatly from an attack of fever, and did not recover his strength after his return to England; but his premature and somewhat sudden death was not anticipated.

LEGAL INTELLIGENCE.

TESTAMENTARY CAPACITY—A MEDICAL MAN TAKING INSTRUCTIONS FOR A WILL.

The case of *Winstone v. Owen* was decided at the Court of Probate, on November 4, before Lord Penzance. The will of the testator, Thomas Winstone, late of Bayswater, was propounded by the defendant as executor and universal legatee. The will bore date September 5, 1870. The testator was not on friendly terms with his relatives, and there was no question as to his intention to leave his property to Mr. Owen, who was an old and very intimate friend; but he deferred making his will until he was on his death-bed, and the question was whether he was, at the time he executed it, sufficiently conscious to be able to understand what he was doing.

The principal witness in favour of the will was Dr. Baker, his Medical attendant, who took his instructions shortly before the will was prepared, at the time when the testator was perfectly conscious. The solicitor who prepared the will from the written instructions of Dr. Baker, was of opinion that he was quite unconscious at the time when his hand was guided to make the signature. Dr. Baker, however, was of a contrary opinion, although the testator was then unable to speak, and the Doctor and the solicitor attested the will. The testator never rallied after signing the will, and died the same evening.

The nurse was examined in favour of the will; and the landlady of the lodging, and several other witnesses, were examined against it.

Lord Penzance said that this was one of those cases which required to be carefully watched, and there was a great difference between instructing to make a will in a person's favour and actually making such an one. In this case there was an entire absence of any evidence from which the Court could come to the conclusion that the testator was of testamentary capacity at the time when the will was signed. In the opinion of some of the witnesses he was conscious; but the law required, not only that he should be conscious, but that he should have a sound and disposing mind. That party propounding the will was bound to establish that he had a sound and disposing mind; and having failed to do so, the Court must pronounce against the will. But it was a peculiar feature in the case, that the defendant, in whose favour the will was made, took no part whatever in preparing it or procuring its execution. He was a stranger both to the Medical man and the solicitor, and he took no step whatever to obtain the will. Under these circumstances it was just that the defendant should not be condemned in costs.

NEW INVENTIONS.

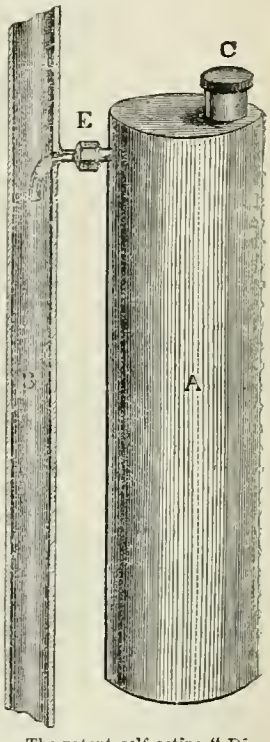
MR. GARDNER BROWN'S SELF-ACTING DISINFECTOR.

The Self-acting Disinfector is a reservoir containing a disinfectant, and communicating with the water-pipe in some part of its course from the cistern to the closet-pan. Whenever water passes down this pipe, it draws over and becomes commingled with a certain portion of the disinfectant. The measuring, effected by a regulator within the apparatus, prevents anyone drawing off more than his due share of the fluid.

The "Disinfector" is easily fixed by a plumber at a small cost, or by the "ready method," which only requires a slight knowledge of the use of a gimlet and screwdriver.

Condy's fluid or carbolic acid used with this apparatus are "safe, efficient, extremely economical," and placed entirely beyond the control of anyone using the closet.

The capacity of the "Disinfector" varies from a quart to two gallons, and one charge of a disinfectant will last from a fortnight to several months, according to the frequency with which the closet is used and the capacity of the apparatus. Chloralum, chlorinated lime, and Burnett's fluid must not be used at present with these "Disinfectors"; but experiments are now being made to meet the difficulties arising from their energetic action on metal, without using fragile substances like glass.



A, The patent self-acting "Disinfector" (3 in. by 12 in.); B, supply-pipe to water-closet; C, funnel for charging; E, union with outlet-pipe to supply-pipe.

Royal Institution of Great Britain.—At the general monthly meeting, held on Monday, November 6, Sir Henry Holland, Bart., M.D., D.C.L., F.R.S., President in the chair, Sir John Conroy, Bart., Dr. J. Hall Davis, Ralph Henry Christopher Nevile, Esq., and Henry Rigg, Esq., were elected Members of the Royal Institution.

Meeting of the French Medical Association.—The first general meeting of this body since the recent disasters, took place last week, and was numerously attended, although some of the local societies affiliated to it have seceded, either on account of the derangement which they have been subjected to during late events, or because they have been disappointed in the expectations that they entertained when they joined the Association, that it would be enabled to protect them from the rivalry of illegal practitioners. It was determined that in future the President should be elected by universal suffrage, and also that the three local societies of the annexed departments (whose representatives at the meeting were received with enthusiasm) should still continue to form part of the Association. Indeed, one of their presidents was chosen to supply a vacancy in the Council of the Association.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their Primary Examination in Anatomy and Physiology at a meeting of the Court of Examiners on the 8th inst., and when eligible will be admitted to the Pass Examination :—

Alliott, Alexander J., student of St. Thomas's Hospital.
Banham, Henry French, B.A. Cantab., of St. Thomas's Hospital.
Bennett, H. Selfe, of St. Thomas's Hospital.
Bevan, Adolphus, of Guy's Hospital.
Brady, John C., of the Charing-cross Hospital.
Collinson, A. Cockburn, of St. Mary's Hospital.
Elliott, C. Bolton, of Guy's Hospital.
Harbinson, Alexander, of the Belfast School.
Harvey, Charles W., of University College.
Haslam, Thomas H., of St. Thomas's Hospital.
Hutchinson, Charles F., of the Edinburgh School.
Hyatt, James Taylor, of the Westminster School.
Ivens, A. Somers, of St. Bartholomew's Hospital.
Lloyd, C. Ayliffe, of St. Bartholomew's Hospital.
Magill, James, M.D. Queen's Univ. Ireland, of the Cork School.
May, W. Allan, of Guy's Hospital.
Owen, Charles W., of St. Thomas's Hospital.
Ramsay, Ebenezer J., of University College.
Ross, W. Graham, of the Montreal School.
Sawdon, Frederick J., of the Edinburgh School.
Sloane, Ebenezer E., of the Belfast School.
Spencer, Lawrence W., of King's College.
Piers, Charles E., of the Dublin School.

Ten candidates having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their anatomical and physiological studies for three months. The pass examinations for the diploma of Member commence this day (Friday), and, owing to the large number of candidates, will be continued throughout the ensuing week. The following were the questions on anatomy and physiology submitted to the candidates on the above occasion, viz. :—"1. Describe the anatomy of the colon, including its minute structure. State its position in reference to the exterior of the abdomen; and mention the internal parts and structures with which it is in close relation. 2. State how the first act of breathing is induced in the new-born infant, and explain the physiological effects of respiration. 3. Describe the dissection required to expose the internal maxillary artery; then give its course, relations, and branches in the order in which they arise, and their distribution. 4. Give the position, attachments, and function of the ciliary muscle. Describe its microscopic structure. 5. Describe the os hyoides, and mention the muscles and ligaments connected with it, and state the nerves by which the former are respectively supplied. 6. Enumerate the various excretions. Give the principal constituents of each, their mean amount in the healthy adult subject in twenty-four hours, and the sources whence each of these constituents is derived."

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, November 2, 1871 :—

Bethell, Alfred, Pelton, Shepton Mallet.
Davies, Arthur Evelyn, Penner House, near Newbridge.
Lang, John Messiter, Thatcham, Berks.
Thompson, Henry, Hull.

The following gentlemen also on the same day passed their first Professional examination :—

Emms, Alfred Wilson, Guy's Hospital.
Kenyon, George Simpson, Liverpool School of Medicine.
Townend, Joseph Henry, Guy's Hospital.

At the recent examination for the Prizes in Materia Medica and Pharmaceutical Chemistry the successful candidates were—

First.—Thomas Johnston English, of St. George's Hospital (Gold Medal).
Second.—Sydney Howard Vines, of Guy's Hospital (Silver Medal and Book).

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

ALDERSON, FREDERICK HENRY, M.R.C.S. Eng., L.S.A. Lond., L.M.—Medical Officer and Public Vaccinator for No. 5 District of the Fulham Union.

COOPER, GEORGE JOSEPH, M.R.C.S. and L.S.A.—Resident Medical Officer of Poplar Hospital (for Accidents), 303, East India-road.

HODGES, FRANK H., M.R.C.S., L.S.A., and L.R.C.P. Edin.—House-Surgeon to the York County Hospital, *vice* Oswald Baker, L.R.C.S., L.R.C.P. Edin., resigned.

HOWSE, H. GREENWAY, M.S. Lond., F.R.C.S. Eng., Assistant-Surgeon and Lecturer on Anatomy to Guy's Hospital—Surgeon to the Evelina Hospital for Sick Children, *vice* Alfred Willett, F.R.C.S. Eng., resigned.

MILLIGAN, JOHN, M.R.C.S.E., L.S.A.—Medical Officer to the Keighley Local Board of Health.

NEAL, B., L.R.C.P., L.F.P.&S., L.M.—Assistant Medical Officer to the Cornwall Lunatic Asylum, *vice* B. G. Derry, L.R.C.P. Lond., M.R.C.S. Eng., appointed Medical Officer for District No. 3 of the Bodmin Union.

BIRTHS.

GARMAN.—On November 4, at 1, Clarendon-terrace, Bow-road, Middlesex, the wife of Cornelius E. Garman, Surgeon, of a daughter.

HARLING.—On October 30, at 16, Seymour-street, Portman-square, the wife of R. D. Harling, M.D., of a son.

HARRIS.—On October 31, at Marles-hill House, Godstone, the wife of Arthur G. R. Harris, L.R.C.P.L., M.R.C.S.E., of a daughter.

MARRIAGES.

ALLFREY—HOLT.—On November 7, at St. Mary's, Stoke Newington, George Allfrey, eldest son of the late George Allfrey, Esq., of Stamford-hill, to Catherine Emily, second daughter of Joseph Rose Holt, M.D., M.R.C.S., Uckington, Gloucestershire.

HEATH—LEWIS.—On October 17, at St. Mark's, North Audley-street, R. E. Heath, M.D., 88th Connaught Rangers, to Catherine Maria, only child of the late Edward Lewis, Esq., of Battlesfield.

HOOD—FLOWER.—On November 2, at St. Matthew's Church, Croydon, Donald William Charles Hood, Esq., of Caius College, Cambridge, eldest son of the late Sir William Charles Hood, M.D., to Alice, third daughter of John Wickham Flower, Esq., of Park-hill, Croydon.

LUKE—PEARCE.—Walter Rochford Luke, Esq., of 65, Bramah-road, London, to Ann Elizabeth, eldest daughter of the late Francis Drake Pearce, Surgeon, of Kingsbridge.

OTTERBOURG—COHEN.—On November 6, at the Synagogue, Northampton-street, Dover, Solomon Otterbourg, M.D., Chevalier of the Legion of Honour, Commander of the Order of Francis Joseph, etc., of 10, Rue Lafayette, Chaussée d'Antin, Paris, to Theresa, daughter of the late Rev. R. J. Cohen, of Sussex House, Dover.

DEATHS.

BARROW, HERBERT WILLIAM, youngest son of the late John Barrow, Surgeon, Newton-le-Willows, Lancashire, at the residence of his brother, at Golborne, on October 30, aged 28.

BUTLER, WILLIAM, M.R.C.S.E., at the residence of his father, Sherfield Court, on November 1, aged 23.

HAWKINS, JOHN, M.D., formerly of Langharne, Carmarthenshire, at Woodstock, on November 3, in his 88th year.

REES, MARY ANNE, eldest daughter of the late David Rees, Staff Surgeon, Antigua, and formerly Surgeon 81st Regiment, at Dawlish-road, Teignmouth, Devon, on October 29.

RUSSELL, ELEANOR, eldest daughter of the late Dr. Rutherford Russell, at 94, Earl's-court-road, Kensington, on November 3, aged 25.

WALLER, LUCY, third surviving daughter of the late Thomas Waller, Surgeon, of Luton, Bedfordshire, at Devonshire-place, Brighton, on November 3.

WILLIAMS, CALEB, M.D., at Micklegate, York, on November 5, aged 73.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

COUNTY OF WICKLOW INFIRMARY.—Apothecary. Must be duly qualified. Applications and testimonials to Mr. H. Rooke, Secretary, on or before November 13.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Assistant-Physician. Must be M.R.C.P.L., or pledged to become so within twelve months. Applications and testimonials to the Secretary, on or before November 11.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Clinical Assistant. Gentlemen applying for this appointment must possess at least one qualification. Applications and testimonials to the Secretary, on or before November 11.

KENT AND CANTERBURY HOSPITAL.—House-Surgeon. Gentlemen applying for this appointment are required to possess qualifications in Medicine and Surgery. Applications and testimonials to Mr. T. Southee, Secretary, on or before November 24. The duties commence on January 1, 1872.

LINDSEY, LINCOLNSHIRE.—Medical Officer for the County Gaol and House of Correction. Candidates for this appointment must be duly qualified and registered. Applications and testimonials to the Deputy Clerk of the Peace, Lindsey, on or before November 18. The duties will commence about the end of March, 1872.

LIVERPOOL INFIRMARY FOR CHILDREN.—House-Surgeon. Medical and Surgical qualifications required. Applications and testimonials to the Chairman of the Committee, on November 11.

MIDDLESEX HOSPITAL MEDICAL COLLEGE.—Lectureship on Materia Medica. Applications to the Dean, on or before November 11.

ROYAL FREE HOSPITAL, GRAY'S-INN-ROAD.—Junior House-Surgeon. Must be M.R.C.S. Applications and testimonials to the Secretary, on or before the 16th inst.

SHEFFIELD PUBLIC HOSPITAL AND DISPENSARY.—Assistant House-Surgeon. The following qualifications are required :—Member of one of the Colleges of Surgeons of the United Kingdom, also L.S.A. ; or possess a Licence to practise Medicine. Applications and testimonials to Dr. J. C. Hall, on or before November 15.

SOUTH STAFFORDSHIRE GENERAL HOSPITAL, WOLVERHAMPTON.—Physician's Assistant. Candidates must be graduates in Medicine of a British University. Applications and testimonials to the Chairman of the Medical Committee, on or before November 27.

SUSSEX COUNTY HOSPITAL, BRIGHTON.—Surgeon. Must be M.R.C.S.E. Edin. or Dub. The office of Assistant-Surgeon is also vacant; the qualifications required are the same as for the appointment of Surgeon. Applications and testimonials to Mr. A. Vesey, on or before December 6.

TEIGNMOUTH, DAWLISH, AND NEWTON DISPENSARY AND INFIRMARY.—House-Surgeon. Must be duly qualified and registered. Applications and testimonials to the Chairman of the Committee, on or before November 16.

VICTORIA HOSPITAL FOR SICK CHILDREN, GOUGH HOUSE, QUEEN'S-ROAD WEST, CHELSEA.—House-Surgeon. Must possess at least one qualification to practise. Applications and testimonials to Mr. St. John H. Young, on or before November 27.

WESTHAMPNETT UNION.—Medical Officer for the Rumboldswyke District. Candidates must have both Medical and Surgical qualifications. Applications and testimonials to Mr. R. G. Raper, West-street, Chichester, on or before November 19.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Axminster Union.—The Colyton District is vacant; area 9378; population 2939; salary £64 18s. 10d. per annum. The Shute District is vacant; area 2450; population 609; salary £18 4s. per annum.

Bishop Stortford Union.—Mr. A. K. Packman has resigned the Braughing District; area 4300; population 1180; salary £35 per annum.

Chorlton Union.—Mr. Henry Webster, Assistant Medical Officer at the Workhouse, has resigned; salary £125 per annum.

St. Marylebone Parish.—Mr. Alfred Elkins has resigned the St. Mary's District; salary £100 per annum; no fees.

Portsea Island Union.—Dr. Way has resigned the Landport District; area 1000; population 15,800; salary £70 per annum.

APPOINTMENTS.

Ellesmere Union.—Richard S. Perkins, M.R.C.S., L.S.A., to the Overton District.

Glendale Union.—James Lambie, M.B. Glasg. Univ., L.F.P. and S. Glasg., to the Lowick District.

Thorne Union.—Alexander Cameron, M.D. and M.C. Univ. Glasg., to the Epworth District.

Walsall Union.—John Burton, L.R.C.P. Edin., L.R.C.S. Edin., to the Workhouse.

MR. ELKINS has resigned the office of Medical Officer of St. Mary's District, Marylebone.

WE regret to hear that Dr. Dalrymple, M.P., has been suffering since his arrival in the United States from intermittent fever.

DR. BARCLAY reports the health of the parish of Chelsea to be in a very satisfactory state.

THERE were 637 deaths in Paris last week.

IN the neighbourhood of Calcutta, in the Hooghly district, fever is raging with unusual virulence.

A MOVEMENT is on foot in Birmingham to purchase the house of Dr. Priestley, at Fairhill, and preserve it as a memorial to the "Father of pneumatic chemistry."

THE extension of the Queen's Hospital, Birmingham, is to be commenced about the latter end of this month, by the erection of an out-patient department, which will include accommodation for the resident Medical staff and nurses, and also the dead-house, post-mortem rooms, etc.

A CONFERENCE of the Governors and Medical officers of Hospitals and Dispensaries is to be called by the Charity Organisation Society, to consider the expediency of converting free Dispensaries into provident institutions.

THE Professors of the Medical College of San Carlos, in Madrid, have mostly resigned, in consequence of the steps which the Ministers have taken to suppress them, as they represent sinecures. A demonstration in favour of one of the Professors was made by 150 students.

A FAREWELL banquet, and a diamond ring and a gold snuff-box, were given to Dr. Robinson, L.R.C.S.I., by the inhabitants of Chenes, Victoria, on his departure for Europe, as a mark of the esteem and affectionate respect in which he is held by the people among whom he has practised for the past fourteen years.

THE Totnes Board of Guardians very properly resolved, a few days ago, to prosecute a lady who caused her servant, who was suffering from small-pox, to be driven to the workhouse porch and there left. The girl had caught the disease from her mistress's son.

THE *Torquay Directory* informs us that a Medical Officer is required for that town. He is to attend all meetings of the local board, make reports on all sanitary matters, be a competent analyst, and is to receive a salary of £50 a year! Mr. Wilkinson, an active member of the local board, denounced the salary as "totally inconsistent" with the duties, and succeeded in getting the subject referred back to the committee.

PHTHISIS AND DEATHS IN THE MELBOURNE HOSPITAL.—During the four weeks ending on August 11 last, thirty deaths (exclusive of those of natives) took place in the Melbourne Hospital. Seven, or 23 per cent., of the deaths were occasioned by consumption. The persons who died of phthisis had respectively resided 9, 9, 6, 1, 14, 12, and 13 years in the colony, or an average of nine years each.

THE ROYAL ACADEMY.—Professor Partridge, F.R.S., commenced his annual course of lectures on Anatomy, in the new theatre, at Burlington House, on Monday last, and will continue them every Monday evening at eight o'clock until the 11th proximo, inclusive.

CITY OF LONDON TRUSS SOCIETY, 35, FINSBURY-SQUARE.—The number of patients relieved during the month of October was 686, to whom 688 instruments were supplied.

MORTALITY OF EUROPEAN TROOPS.—The total number of European troops in India who died or were invalided during the nine years 1861-69 was 34,916; the average number employed during the same period was 67,363—so that rather more than half died or were invalided.

ON Tuesday, the 14th inst., "The Erratics" will give a dramatic performance in St. George's Hall, Langham-place, W., for the benefit of the Great Northern Hospital. *Won at Last*, followed by *Charles the Second*, will be played.

NERVOUS FEVER IN SWITZERLAND.—From the time that the French Army of the East passed through Neuchâtel, nervous fever has been raging in the village of Travers, where, out of seventy or eighty persons attacked with this epidemic, seventeen have died. It is believed that this temporary insalubrity is entirely attributable to the passage of the numerous French soldiers, who have left in this village, more than elsewhere, the germ of the "typhus of armies"—a malady which follows in the wake of troops, especially during the cold and damp season, and when the houses and other places insufficiently ventilated have been crowded with soldiers and horses.

ICE IN ACUTE RHEUMATISM.—Professor Esmarch, in a communication to the Berlin Medical Society, related instances of the great benefit which he had derived from the continuous application of ice to joints affected with acute rheumatism. The general temperature becomes lowered, the pain abated, and the course of the disease abbreviated to an extent procurable by no other means. So far from fearing the induction of cerebral affection by repelling the articular inflammation—the *phrenopathia rheumatica* being here, as in typhus, dependent upon the increased temperature—ice is especially indicated for its prevention or removal.—*Berlin Woch.*, No. 35.

BIRMINGHAM MIDLAND MEDICAL SOCIETY'S CONVERSAZIONE.—LECTURE BY DR. LIONEL BEALE.—On the evening of November 8 a *conversazione*, attended by a large number of the members of the Midland Medical Society, was held in the Assembly-room at the Royal Hotel, Birmingham. Surgical instruments were shown by Messrs. Salt and Son, and microscopes and specimens were lent by Mr. Parsons, Mr. Wells, Dr. Russell, Dr. Sawyer, Dr. Underhill, and others. At eight o'clock Mr. West, President, took the chair, and called upon Dr. Lionel Beale, F.R.S., to deliver a lecture upon "The Nature and Origin of Contagious Disease Germs." Dr. Beale said: It would be agreed, by most observers, that some material passed in all cases of contagion from the diseased to the healthy organism. Experiments had demonstrated that, though it might remain suspended in the air, it could not strictly be called volatile, though it might be described as impalpable. It can be separated by filtering the air through cotton-wool, and must, therefore, consist of actual particles of matter. Contagion germs once introduced into the human system, multiplied themselves, and there was no chemical substance of which this could be said. Actual contact was not necessary for the spread of a contagious disease, for the contagion would hang in clothes; but the carrying of an actual particle was still necessary to contagion, and he did not think that any of these germs would retain their poisonous properties for a twelvemonth. The quantity necessary for infection was extremely small, and an object no larger than a fly's foot might carry enough contagious matter to infect many persons. The almost impalpable nature of these fine particles had led many people to the erroneous belief that they could not be measured, weighed, nor in any way made appreciable by sense. So small were they that a single fragment of hair, or a starch globule, would afford space for thousands of them, any one of which would be infectious. They might exist in an atmosphere without the dust, and dust without the germs. Offensive odours, again, were not in all cases necessarily associated with contagion, and there were evil smells in which the germs of disease existed in no greater quantity than in an atmosphere free from odour. The fact appeared to be that all infection arose from diseased living organism, and no matter which was not derived from living sources could grow and multiply as these germs did, converting as they did whatever other living organism with which they came in contact to their own nature. Contagious diseases were

not due to the presence of bacteria or vibrios in the blood. The existence of these was not the cause, but the concomitant or consequence, of the changes induced in the course of the disease. The germs of these bacteria existed in healthy subjects in almost incalculable numbers, and when the tissues of the frame were damaged, these microzymes—as they were also called—developed. When the contagious material was perfectly fresh, there were no microzymes in it; but if it were left exposed to the air for a time, it became filled. Hence, in the case of vaccine lymph, it would be seen that it was quite an error to suppose that the microzymes gave it its power of infection; for exactly in proportion as the effect of the lymph decayed, the microzymes increased in number. For any particle to have infectious property it must have life. In the pus taken from an ordinary abscess there were movements which the lecturer had known to continue for so long a time as four-and-twenty hours, and which could only belong to life. Pus was derived from the normal living matter of the tissue of the body, and, living much faster than any healthy part, it generated, as only living matter could, other matter of its own nature. It had been contended by some that pus corpuscles were the white corpuscles of the blood, but the fallacy of this was readily shown by the fact that there were not enough white blood-corpuscles in the whole system to create the pus corpuscles which would appear in one abscess in a single day. In case of fevers and inflammations the same changes were observed in the germinal matter of the tissues and blood. The fever might be considered a general inflammation, and the inflammation regarded as a local fever. All contagious diseases, then, were the result of the growth of degraded living matter, and the history of infectious disease seemed to point to the rise of various new types.

THE anti-opium pills we make are composed of extract of hyoscyamus and gentian, camphor, quinine, Cayenne pepper, ginger, cinnamon, with Castile soap and syrup to form the mass, and liquorice-powder to form the coating. We have had abundant testimony to their efficacy in overcoming the habit, or "*yin*," and preventing the evil consequences which too often follow on giving up opium without medicine, or by means of purely native prescriptions. Many are deterred from giving it up on account of the inefficiency of the native nostrums, the danger of producing other and worse diseases, and the fact, only too patent, that it is as difficult to get weaned from the medicine as from the drug itself. This is owing to the fact that all native remedies contain opium in some form, most frequently ashes of opium already smoked. As many as 5000 are sold monthly at the rate of ten pills, to satisfy a *yin* of one mace, at a cost of about four candareens.—*Report of the Peking Hospital, by Dr. John Dudgeon.*

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

Dr. L. J. Martin.—Your letter containing enclosure has come safely to hand.

Paris.—A translation of Dr. Fort's letter shall appear next week.

A Colonial Hospital Surgeon.—At a recent discussion on the advantages of being Honorary Surgeon to the Kyneton Hospital, Melbourne, Dr. Rigby said—"There is neither honour nor profit connected with the office. Do you think, if I was sending a report of a case to one of the Medical journals, I would sign myself Honorary Surgeon to the Kyneton Hospital?"

Worcester.—We have perused the report of the meeting of the Worcester Board of Guardians on Thursday week, contained in the *Worcestershire Chronicle*. We think that the guardians were not justified in passing a vote of censure on Dr. Woodward. Certainly, there was no proof of negligence, even according to the showing of the only witness brought against him. Votes of the kind referred to are not only unjust, but injurious to the best interests of the poor.

STRYCHNINE AND MORPHINE.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—When experimenting upon animals with morphine and strychnine, the one appeared to neutralise the action of the other. I therefore instituted a series of experiments, and found that, given together, strychnine and morphine neutralise each other's action; also, that the one is a perfect antidote for the other, as the three following experiments, selected from a large number, will prove:—

A brown horse was given, subcutaneously, morphine gr. viij., strychnine, gr. j.; and the only effect produced was a very slight dilatation of the pupils. Again, the same horse was given, subcutaneously, at 3.10 p.m., strychnine gr. js., and at four o'clock the whole of his muscles were quite rigid; at 4.5 morphine gr. x. was given; at 4.10 the rigidity of muscles was subsiding; and at 4.30 the horse had quite recovered, with the exception of a slight restlessness, and increased flow of saliva from the effect of the morphine.

A black pointer dog was given, subcutaneously, at 4.50 p.m., morphine gr. ss.; at 6.50 he was sleeping soundly; the saliva was running from his mouth, and when roused he was unable to use hind legs, and quickly subsided into a sound sleep. He then had given strychnine gr. $\frac{1}{12}$. At seven o'clock the flow of saliva had ceased; at 7.5 the sleepiness had gone, and the dog was able to walk; at 7.30 he had quite recovered.

Now, as the action of morphine has precisely the same effect on the dog as it has upon man, it is fair to infer that the like result would be the case in poisoning with opium in man. I am, &c.,

FREDK. JOS. MAON, M.R.C.V.S.

CORRIGENDUM.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Will you kindly, in your next issue, correct two errors which appear in your pages to-day. First, our entry of students is much larger this year than last, our total being nearly 100. Second, "Queen's College" is the name of our school, not "School of Medicine," or "Royal School of Medicine." I am, &c., FURNEAUX JORDAN.

22, Colmore-row, Birmingham, November 5.

LAST SUNDAY.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Stained glass windows have recently been added to our handsome church, the vocal cords of the organ renovated, new anthems rehearsed, and a ladylike lovely young curate (an Honourable), who shaves his head and wears the best of clothes, will shortly arrive. Quite oblivious of the handsome hunting men sprinkled about, pretty girls in winter bonnets and seal-skin jackets bend demurely over ivory prayer-books, and old ladies, prone to respirators and gold-headed smelling-bottles, severely worship. Here and there are sables of woe; but those griefs burn most which gall in secret, and too often the widower whose loss appeared irreparable finds out another mate within the twelve months.

The Liturgy never palls. Reverentially—poor miserable sinners—we pray for true repentance, that "we shall be forgiven all our sins, negligences, and ignorances, and be endued with the grace of God's holy spirit to amend our wretched lives according to His holy word." During the sermon attention flags. Whinyates is not one of those enterprising clergymen who thunder out the newest discourses procured regardless of expense; his *forte* lies in hard, earnest parochial work, not in oratorical display.

The red-hot Medical student in the next pew wonders what complaints David and Job suffered from—if Calabar bean, condurango-root, skin-grafting, and the sulpho-carbolates had each fair trial; whether Luke was fully qualified, or with unexceptionable references *sine* diploma.

We brood over the smashed carriage—£12 10s. 6d. (with respectful compliments) to repair the result of a collision when rushing to a case of croup in Lypiatt-terrace—Rebecca dead lame, Sir Roger Tichborne gone in the wind. Sadly we think of Ned, his mother's favourite, who promised so well at the Proprietary College, only to turn out a cruel thorn; and about Ada, our headstrong daughter, engaged to a scrofulous dandy with Dundreary whiskers, who, always loitering about the promenade or Montpelier-gardens, is wonderful at billiards, but too proud for business.

In the chancel sits a lady in deep and bitter sorrow; possibly, if we had been more skilful, she would not be here a widow in rusty mourning, her daughters, accustomed to every luxury, going out as governesses. Though not in mortals to command success, it is our duty to leave no stone unturned in the pursuit of practical knowledge. "Neither shall the wave which has passed over ever be recalled, nor can the hour which has once fled by ever return again." Trying to the utmost, we may benefit ourselves as well as others. It is a glorious triumph from the jaws of death to restore the father to his family. Thus earning our bread, it is a fine thing honestly to gain money, name, and position, and to feel that those we love best will be provided for, and not turned out of the old home to meet poverty, and privation, and the world's cold shoulder when we are gone. No Profession is more taken advantage of and defrauded than ours, often by people of wealth and status, who forget the rent of houses, the cost of carriages and horses, and the expense of living in London.

Physicians and Surgeons gain European reputation, but die before reaping well-earned harvests, and leave but little money behind. Every Medical man—no matter how small his present income—ought to insure his life. None know better than ourselves the precarious tenure of that life: the frail quality of the sword-suspending hair, how readily the silver cord is loosened, and how easily the golden bowl is broken. A sudden silence in the church—Whinyates has closed his book; and I conclude a prosy sermon on the propriety of MEDICAL INSURANCE.

SULPHUR IN PLEURO-PNEUMONIA.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Twelve months ago I mentioned to you that I was watching with deep interest a sudden outbreak of pleuro-pneumonia which had made its appearance in a small lot of cattle which I myself was feeding with the view of testing an experiment. They were ten in number, and for about seven weeks all went well with them. The locality of their stable was unfortunately seven miles from Kirkealdy, so that their superintendence was committed virtually to the fidelity of a servant, who was charged to fumigate the byre at least twice a day, and to be careful to report anything being amiss. Instead of this, however, I found two of the animals sick when I visited them incidentally, as also that the fumigation had been interrupted, because his supply of sulphur had run short. As to the nature of the disease there speedily appeared abundant proof, and the premises were "proclaimed," and placed under the control of the official veterinary. The fumigation was renewed and kept up night and day during the remainder of the time whilst the epidemic lingered; but from its spread to one animal after another—numbering seven in all—I thought it essential that some auxiliary should be had recourse to, and accordingly I commenced the internal administration of sulphurous acid in large doses—viz., 2 ozs. every second hour in a quart of gruel—and I think that my after-experience warrants my having used to you the word "unparalleled." Out of the seven cases, two proved fatal; one of these, however, died before the "bottle" was put into use, and the other was labouring under effusion into the pleura before the treatment was begun. The effect of the remedy upon the others was very striking; for although all were in their turn certified officially as "affected," they began to improve within a few hours after getting the medicine. Three of the ten still remain to be accounted for, and they escaped infection, notwithstanding that I shifted them into the diseased stalls, and several times saw them licking the noses of those that ultimately died. I may mention that the blood-meal upon which these cattle were throughout fed seemed to come in most appropriately to suit

their convalescence, which was unusually rapid, while in ordinary circumstances it proves very protracted. Another object I have in view at present is to draw attention to a simple means of extending the advantages of this method of treatment to "foot and mouth disease," which, although not so fatal as pleuro-pneumonia, nevertheless is the source of great loss to stockholders and dairymen. The use of sulphurous acid for the cure of aphtha is no novelty, but its pungent odour has hitherto been a barrier in the way of its convenient application upon an extensive scale; but I have found that, when mixed with other antiseptics, the precise nature of which I confess myself unable to describe, the flavour is so mellowed that horses, cattle, and pigs take it readily, mixed with their food, and that with all the benefit which might have been expected. I tried it lately, before some friends, upon a number of cattle that were under the malady, and, although shy at anything else, they seemed to enjoy the medicated stuff greatly. Their owner subsequently wrote to me that "it had been tried upon a cow, and that she was at once cured." I send you a sample of the food as he used it, but the liquor itself could be had of the chemist here who makes it, and it could be mixed with bran or any other familiar absorbent, the said mixture to be afterwards incorporated with some cold pulp, which appears to be extremely grateful to the hot, inflamed mucous membrane.

Kirkcaldy, Nov. 7. I am, &c., JAMES DEWAR.

*** The sample has a sourish smell, like pickles, and looks like cocoanut-pulp impregnated with sulphurous acid. Happy the beast that gets it!

COMMUNICATIONS have been received from—

Mr. BURE; Mr. SANDERS; Dr. WOODWARD; Mr. J. HILL; Mr. F. D. PEARCE; Mr. M. HARRIS; Dr. E. F. TURNER; Mr. BLACKETT; Mr. F. J. MASON; Mr. NEAL; Mr. T. A. MARSH; Dr. NEILD; Dr. BREE; Mr. FURNEAUX JORDAN; Mr. GRAY; Mr. C. J. EGARR; Mr. F. H. WELCH; Mr. SLEIGHT; Mr. HOLTBY; Mr. R. LIEBREICH; Mr. J. CHATTO; Dr. F. R. HOGG; Dr. WHITMORE; Mr. KITTO; Dr. VENABLES.

BOOKS RECEIVED—

Transactions of the Odontological Society, vol. iii., No. 8—Golaub Sing on the Hindoo View of Cholera—The German Yoke—The Two Offices, or Priests and Physicians, by M.D.—Gore's Brief Historical Memoir of the Army Medical Service—Patents and Patentees, volume iv., by W. H. Archer, Registrar-General of Victoria—Manchester Medical and Surgical Reports, vol. ii.

PERIODICALS AND NEWSPAPERS RECEIVED—

Food, Water, and Air, No. 1—Worcestershire Chronicle—Nature—Practitioner, November—Edinburgh Medical Journal, November—Edinburgh Evening Courant—Temperance Record—Belfast Evening Telegraph—Edinburgh Evening Courant—Pharmaceutical Journal—Indian Medical Gazette—Melbourne Age—Dark Blue, November—North British Daily Mail.

APPOINTMENTS FOR THE WEEK.

November 11. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; King's, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

13. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

MEDICAL SOCIETY OF LONDON, 8 p.m. Dr. Sansom, "A Case of Endocarditis complicating Phthisis. Dr. Alfred Carpenter (of Croydon), "Two Cases of Muscular Anæsthesia, with Remarks."

14. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8½ p.m. Mr. A. Durham, "On the Operation of Opening the Larynx by Section of the Cartilages for the Removal of Growths and Foreign Bodies."

15. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 2 p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

16. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; West London, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

HARVEIAN SOCIETY, 8 p.m. Mr. Berkeley Hill, "Treatment of Surgical Inflammation by Counter-irritation."

17. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

VITAL STATISTICS OF LONDON.

Week ending Saturday, November 4, 1871.

BIRTHS.

Births of Boys, 1122; Girls, 1021; Total, 2143.
Average of 10 corresponding weeks, 1861-70, 2083·0.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	679	721	1400
Average of the ten years 1861-70	701·8	662·7	1364·5
Average corrected to increased population	...	...	1501
Deaths of people aged 90 and upwards	...	...	...

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561189	3	4	6	...	7	...	5	1	2
North ...	751668	21	14	7	1	18	2	10	2	6
Central ...	333887	10	3	4	...	3	1	8	1	2
East	638928	12	11	7	...	5	1	7	2	5
South	966132	15	13	11	3	18	...	6	1	4
Total	3251804	61	45	38	4	51	4	36	7	19

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·724 in.
Mean temperature	47·3°
Highest point of thermometer	57·8°
Lowest point of thermometer	41·8°
Mean dew-point temperature	41·6°
General direction of wind	E.N.E.
Whole amount of rain in the week	0·04 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, November 4, 1871, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1871.*	Persons to an Acre. (1871.)	Births Registered during the week ending Nov. 4.	Deaths Registered during the week ending Nov. 4.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3263872	41·8	2143	1400	57·8	41·8	47·3	8·50	0·04	0·10
Portsmouth ...	113450	11·9	67	39	56·4	39·4	46·8	8·22	0·40	1·02
Norwich	80533	10·8	68	36	53·0	38·2	45·3	7·39	0·06	0·15
Bristol	183298	39·1	108	88	...	...	...	...	...	...
Wolverhampton ...	68476	20·2	53	58	51·1	37·7	46·0	7·78	0·39	0·99
Birmingham ...	344980	44·1	255	120	56·2	38·3	46·4	8·00	0·33	0·84
Leicester	95882	30·0	74	32	55·7	35·2	46·2	7·89	0·32	0·81
Nottingham ...	86929	43·6	46	32	55·5	32·9	46·6	8·11	0·30	0·76
Liverpool	493649	96·8	381	232	51·7	35·7	45·9	7·72	0·48	1·22
Manchester ...	356099	79·4	242	183	54·5	42·5	47·9	8·83	0·31	0·79
Salford	125422	34·3	96	72	54·0	39·3	46·5	8·05	0·34	0·86
Bradford	146987	22·3	86	56	54·0	39·0	46·8	8·22	0·98	2·49
Leeds	260657	12·1	191	118	54·0	40·0	47·1	8·39	0·69	1·75
Sheffield	241507	10·6	173	126	53·0	39·5	45·8	7·66	0·60	1·52
Hull	122266	34·3	79	50	53·0	39·0	46·9	8·28	0·16	0·41
Sunderland ...	98797	29·9	104	77	...	...	...	...	...	...
Newcastle-on-Tyne	128677	24·1	109	70	53·0	42·0	46·5	8·05	0·51	1·30
Edinburgh	201728	45·6	129	109	49·7	36·0	44·5	6·95	0·80	2·03
Glasgow	479227	94·7	387	234	...	...	...	...	...	...
Dublin (City, etc.)	310565	31·9	195	144	59·0	38·8	48·8	9·33	0·64	1·63
Total of 20 Towns in United Kingd'm	7204001	33·8	4986	3273	59·0	32·9	46·5	8·05	0·43	1·09

At the Royal Observatory, Greenwich, the mean reading of the barometer in the week was 29·72 in. The highest was 29·95 in. on Thursday evening, and the lowest 29·40 in. on Sunday night.

* The figures in this column are the unrevised numbers enumerated in April last, raised to the middle of the year by adding 1-40th of the rate of increase which prevailed between 1861 and 1871. As the population of Dublin and its suburbs showed a decline between the Censuses of 1861 and 1871, the enumerated number in April last has been inserted for that city, the population being assumed to be now stationary.

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DELIVERED AT

St. Thomas's Hospital,

By R. LIEBREICH,

Ophthalmic Surgeon and Lecturer to the Hospital.

Lecture IV.

ATROPHY OF THE OPTIC DISC.

Gentlemen,—We have studied the fundus of the eye in its normal aspect, and shall now proceed to examine its pathological conditions, and begin with the atrophy of the optic disc.

I would not have done so were I to deliver a systematic course of ophthalmology; but here we have to accommodate the course of our studies to the cases as they present themselves. You must not be astonished to see a comparatively large number of cases of amaurosis; you would find just the same in every other newly opened Hospital or Dispensary. Hopeless cases, having already been treated in various other places without benefit, are always the first to flock to a new establishment, and to try a new method and a new Surgeon.

Such cases, though of little therapeutic interest, are nevertheless very important for diagnostic studies, not only from an ophthalmological, but also from a general Medical point of view.

To draw diagnostic conclusions from ophthalmological aspects, it is not sufficient to state mere atrophy, but to distinguish between the different forms of atrophy. In fact, the atrophy of the optic disc may be the consequence of a variety of affections of the retina, of the optic nerve, of the brain, of the spinal cord; and I need scarcely mention how important it is to recognise the nature and the course of the disease which gave rise to the atrophy of the papilla.

To obtain a general survey of the different forms of atrophy, let us look at the cases depicted in my "Atlas." We find there (Plate IV., Fig. 2) a most complete atrophy of the papilla after syphilitic retino-choroiditis. It is, no doubt, a very exceptional case, on account of the nearly complete disappearance of the vessels of the retina, Plate VI., Fig. 1, "Atrophy in a case of retinitis pigmentosa."—Plate VII., Fig. 5, shows the atrophy following an embolism of the central artery of the retina. The comparison between this figure and Fig. 4, which gives the state of the same eye immediately after the formation of the embolism, demonstrates the changes in the colour of the papilla and in the vessels of the retina. The papilla has acquired a white colour, the arteries have become extremely thin—in some places empty, in others filled with the darker coagulated blood. There is some similarity with the cases just described in Fig. 1. of the same plate, where the partial atrophy of the optic disc with its empty vessels is due to very extensive hæmorrhage in the retina.—Plate IX., Figs. 3, 4, 5, 6, 10, and 12, give instances of the different appearances of partial or complete atrophy of the optic disc after different affections—viz., of the retina (Fig. 3), of the sheath of the optic nerve (Fig. 4), of the spinal cord (Fig. 6), of the glaucoma (Fig. 10), after neuritis optici (Fig. 12).

These drawings appear so different that you can scarcely designate the general characters of the atrophy otherwise than vaguely as a diminution of redness in the colour of the papilla, with a smaller diameter of the vessels. You may perhaps be astonished not to hear me speak of a diminished diameter of the papilla itself. This supposed symptom is, indeed, indicated in many handbooks on ophthalmology, but I have very often taken quite exact measures of the diameter of the optic disc in the living eye as well as in anatomical preparations, and never could state any diminution in cases even of the most absolute atrophy of the optic nerve. There is, in fact, a loss of substance produced by the disappearance of the nerve-fibres. The mechanical changes caused by this loss are to be found in a plane which passes through the axis of the optic nerve, and you will easily observe this circumstance by the flat, atrophic excavation seen either with the ophthalmoscope or under the microscope in a longitudinal section of the nerve. The plane perpendicular to the axis of the optic nerve, which, with an ophthalmoscope, we distinguish as the optic disc, remains in form and size unchanged even after a complete atrophy of the nerve-fibres. If the border of the papilla—that is, the hole within the choroid (choroid limit) and the edge formed by the transition of the sclerotic and the nerve-sheath (sclerotic limit)—remains in the same place after the disappearance of the nervous substance surrounded by these limits, it is, *à priori*, necessary to suppose that some new substance vicariously fills up the empty space. This is, indeed, the case, and it is the nature of this new substance which determines chiefly the difference in the aspect of the papilla. In all cases in which the atrophy of the nerve-fibres is produced without any preceding disturbances in the retina or in the papilla, it is the vitreous body which fills up the excavation. This body, being much more transparent than the nervous substance of the papilla, allows us to distinguish, with much more clearness than in the normal eye, the white network of the lamina cribrosa, which now appears not only in the centre, but throughout the whole extent of the optic disc. For the same reason, the sclerotic limit and the border of the choroid appear too sharply delineated. If, on the contrary, the atrophy of the optic disc is preceded by an inflammatory process of the retina and the papilla, or the latter alone, the disappearing nerve-fibres are replaced by substance of new formation. This substance is more opaque than the nerve-fibres, and consequently covers the lamina cribrosa, which disappears more or less completely, whilst the contours of the papilla, also more or less covered, appear weaker, undecided, and irregular. These conditions will furnish you with the most important points on which you will have to rely for your diagnosis, especially if you also consider the state of the bloodvessels.

To obtain these observations it is necessary to examine the direct image. For that purpose you must be placed close to the eye of the patient, adapting behind the mirror concave glasses of such a power as is required by the shortsightedness of the eye of the patient, or of that of your own.

In order to be able to examine the direct image without artificial dilatation of the pupil, it is necessary to use a mirror with a sufficiently small and carefully worked hole in the centre. If the hole is nearly as large as the pupil of the patient, it is impossible to throw light enough into his eye. If the margin is irregular, containing little scratches, or if it forms a channel instead of a sharp ring, the reflex of light proceeding from this border puzzles the observer by producing entoptic phenomena in his own eye.

A very small part of the mirror only throws light into the pupil—namely, that which immediately surrounds the hole. It is therefore quite useless to use very large mirrors, which are tiresome to the patient, without giving a stronger light to the part of the fundus under observation.

Since I gave these explanations, the diminution of the mirror and its central hole has often been made too great. If the mirror is too small, it cannot well be put against the supra-orbital margin, and insufficiently protects the observer against the flame. Too small a hole has two great inconveniences; at first it diminishes the intensity of the light, allowing only too small a pencil of light to pass from the observed to the observer; secondly, it acts as a stenopaic apparatus, and deprives us of our judgment on the refraction of the patient by suppressing the circles of dispersion.

I therefore propose to make the hole not smaller than two millimetres, and the mirror not smaller than three centimetres, and to use in preference a thin silvered glass mirror, the centre of which is not perforated, but only deprived of the silver covering. The focus of the mirror may be of eight or ten inches.

THE

DISCUSSION ON PURULENT INFECTION

AT THE

PARIS ACADEMY OF MEDICINE.

By Professor VERNEUIL.

(*Concluded from page 583.*)

You will find it quite natural, Gentlemen, that after this recital of experimental researches, the exactitude of which you cannot deny, I again turn to the definition of the so-called pyohæmia; but reassure yourselves—I shall be brief, and only replace the long list of denominations given to that disease by the one of *septicémie embolique*.

Shaken, perhaps, but still hesitating, my adversaries will doubtless seek a last refuge. The experiments, they will say, seem convincing, but experiments have more than once led Practitioners astray; and, more than that, we must not conclude from animals to man. Generally speaking, I care but little for that kind of argument. To show, however, that

my theory does not fear controversy upon any ground, I shall turn to that of human practice. But, first of all, I hasten to say that I recognise several notable differences between the pyohæmia of the laboratory and that observed at the bedside. The first sets in suddenly; the two phases of the disease are confounded into one. The infection of the blood and the profound intravascular inoculation are simultaneous, or, at least, contemporaneous. The proper symptoms of each of them work and arise parallelly, and take a conjoint part in the fatal issue. Things go on quite differently in man. The pyohæmia scarcely ever begins the same day as the wound, but only after one, two, or three weeks, and sometimes even later still. This tardy apparition is easily explained; a few days, at least, are indispensable to develope in the wound or in the neighbouring tissues—firstly, the necessary conditions for the formation, and secondly, the migration of the toxic emboli; but from the moment that this migration begins, man is in every respect alike to the animal under experiment.

Second Difference.—The pyohæmia of the laboratory begins at a precise and well-known moment. It surprises the animal in full health, and has neither antecedents, prodromes, nor predisposing causes. The pyohæmia in man surely begins at a given time—the very moment that the first embolus stops in the capillary network. But there is no symptom which announces this beginning. We only know that, in case a man in perfect health is wounded, a certain lapse of time always occurs between the date of the injury and the invasion of the disease. But, if the wounded man is already febricitant, if the pyohæmia declares itself in a patient suffering from a more or less chronic spontaneous affection, it is very difficult to know the exact hour of its commencement. Let us take the most simple example: A wounded person is seized with pyohæmia towards the third week. What has taken place during the fortnight between the accident and the invasion of the disease? An attentive observation of the symptoms and the curves of the thermometer shows that the organism has been invaded by some serious general trouble—by an inevitable attack of fever. I do not believe that we can prove the existence of pyohæmia showing itself suddenly in a wounded person, otherwise perfectly well, and without fever. If the fact exists, I avow, at least, never to have met with it. We may then ask, What is that serious general trouble—what is the nature of this fever? It might be said that one and the other form the prodromic phases of pyohæmia. Infectious diseases, it is true, are not generally characterised from the first day; a certain *cortége* of equivocal symptoms precedes the apparition of the pathognomonic phenomena. But, in order to apply this reasoning to pyohæmia, we should have to forget that the established infectious diseases, in spite of the uncertainties of the first few days, have none the less a perfectly regulated evolution, and a chronologically determined progress. The incubation presents but very slight oscillations.

Pyohæmia, for a specific disease, we must own, would have strange ways to be able to remain latent for from five to six days to two and three months. All difficulties vanish, on the contrary, if we consider it as a complication. And, moreover, when the general symptoms set in a few hours after the wound, and cause death before the end of the second day, before suppuration has even commenced or emboli had time to form themselves—as is sometimes observed after the crushing of a limb or after wounds from large projectiles, when, at the post-mortem examination, visceral abscesses are wanting—must we then attribute death to the prodromes of pyohæmia alone? Are we here, again, to make use of an hypothesis formerly so much abused, and accept a pyohæmia without emboli, infarctus, or visceral abscesses, just as was once admitted a variola without variola, an erysipelas without erysipelas, etc.? To attribute the precursory fever and the general trouble to ordinary septicæmia, seems to me more simple, more logical, and especially more in conformity with the truth. This disease, which, as already shown, is solely governed by the variable production, absorption, and elimination of the sepsine, presents no regular type, and suffers every possible anomaly as to apparition and duration. Thus it may, without violating its laws of existence, last indifferently twenty-four hours or a year.

According to the present state of science we can perfectly well diagnosticate a traumatic fever, but we are unable to say if this fever will terminate in pyohæmia or not—which means to say, that this latter disease has no universal precursory phenomena. I go further than that, and affirm that the differential diagnosis between grave septicæmia and commencing pyohæmia is frequently impossible, because the characteristic phenomena of this latter disease are developed in the inaccessible depths of the organism; that the incertitude of the diagnosis may sometimes continue during the entire duration of the disease, and, in a large number of cases, only cease to exist in the autopsy-room.

I do not find, therefore, that Billroth is wrong in saying—"It is as difficult to determine the exact moment when the patient is taken with pyohæmia as it is troublesome to indicate the transition from the primitive traumatic fever to septicæmia;" and I should like to ask my colleagues to show me, *at the bedside*, by what sure sign they can know the invasion of pyohæmia, and how in certain cases it is possible even to affirm its existence before death. All our serious previsions are limited to this. Pyohæmia being always preceded by septicæmia, the first will be the more to be feared, as the second has been more favoured by the nature of the wound, the constitution of the patient, and by the composition of the surroundings.

Third Difference.—In the experiments *in anima vili*, the introduction of the sepsine and the embolus is brought about by a very simple mechanism—violence. There is, consequently, no necessity for taxing our minds in trying to discover the mysterious route followed by the generating agents of this pyohæmia. In man, on the contrary, we must inquire into the manner in which the sepsine is introduced—into the origin, and, finally, the means of transport of the emboli.

The septic poison insinuates itself through the closed or open lymphatics, or through the arterial and venous capillaries of small calibre; it doubtless sometimes traverses their parietes when intact, but will surely find itself arrested by the clots which fill the cavities of those vessels. These same clots which stop up the gaping orifices of the open vessels, would, according to theory, form an obstacle to the introduction of the poison; but it is now well known that these clots are permeable to putrid liquids, which traverse or pervade them without difficulty, and afterwards reach the fluid blood bathing their central extremity.

As to the embolus, it varies in its nature, and is of various origin. At a time when the development of pyohæmia was always attributed to pus, the greatest efforts were made to bring the pus of the wound, or that arising from the phlebitis of the open veins, into the blood. All theories were able to explain certain cases, but failed with many, until at last Virchow's researches on the blood-clots and the so-called phlebitis destroyed the whole; and we now know that the pus is not the indispensable element of the septic embolus. The puriform substance arising from the *ramollissement* of the thrombus—and even the fragments of the latter—the leucocytes which abound in the permeable vessels around the inflamed tissues, and the very droplets of fat—all can become matter for toxic emboli, provided these diverse solid particles have imbibed the septic liquid of the morbid focus.

As to the migration of the emboli, it finds its agents in the blood itself, in various mechanical actions—the contraction of muscles and other numerous causes—which I need not discuss at this moment. I shall finish, therefore, believing I have sufficiently proved that, though incontestable differences exist between experimental researches and clinical facts, these differences do not prevent us from recognising, in the pyohæmia of the laboratory and that following Surgical accidents, one and the same process; and which, furthermore, permits us to apply to the latter the precise and clear conclusions furnished by the study of the former. We should leave off, then, I think, for ever, the provoking opposition which Surgeons have too often made to experimenters and pure Practitioners—to the book-learned theorists or *chercheurs*. But be this as it may, anatomy, physiology, vivisection, and other so-called accessory means, remain, and will ever remain, the least uncertain guides to the Physician.

One thing, Gentlemen, surprises me greatly. I cannot imagine why Surgeons have not followed the broad road opened to them by Obstetricians, and for what theoretical or practical purpose they have arbitrarily divided the uninterrupted and indivisible series of traumatic fevers.

Puerperal fever has been perfectly well described many years ago; the greatest differences have been observed in the symptoms, progress, termination, and even in the post-mortem lesions, from one lying-in woman to another, from one ward to another, from one Hospital to another, from one city to another, and from one season to another. Death has been known to take place suddenly or tardily, the putrid infection rapidly or slowly, the classical purulent infection, the absence of post-mortem lesions, and the extreme variability of these isolated or associated lesions—metritis, peritonitis, lymphangeitis, phlebitis, putrilaginous state of the uterus, diffuse purulent infiltration into the subperitoneal cellular tissue—all, and more than these, have been observed.

Well, notwithstanding these dissemblances, and in spite of the obstinate efforts of the separatists, the serious Practitioners have never consented to the parcelling of puerperal fever: they have always, to use rather an antiquated expression, recognised the *unity in the variety*.

What obstetricians have done for the accidents of puerperal fever should be repeated by Surgeons for pyohæmia, and they should show that in spite of these various origins of the disease the causes, evolution, and nature are the same. We all know that pyohæmia is most often consecutive to wounds or Surgical operations which expose an open focus; but it is equally certain that it also complicates and causes a fatal termination in a number of non-traumatic diseases, as well as after slight wounds already cicatrised for some length of time. I shall enumerate a few of them:—Furuncle, anthrax, malignant pustule, spontaneous erysipelas without a wound, typheid fever, variola, cow-pox, perhaps scarlatina, pneumonia, ulcerous endocarditis, arthritis, ostee-myelitis, acute diaphysal and epiphysal osteo-periostitis without incision of the focus, spontaneous varicose phlebitis or that provoked by the simple pricking with the Pravaz syringe, ligature of tumours, and especially hæmorrhoids, subcutaneous fractures, abscess of the prostate gland, profound urethral scarifications, simple catheterism of the urethra or œsophagus, lithotrity, etc.

I am ready to justify this list by bringing observations to support it, and show that its members, however dissimilar they may appear, enter into the theory without difficulty; for in nearly all of them the preparatory septicæmia, the formation and the migration of various emboli, have been perfectly demonstrated. Thus we find again, and in our own turn, the unity in the variety. These developments, for which I hold myself at the disposal of the Academy, would also throw some light upon a truth as yet imperfectly known—namely, that there exist no truly traumatic diseases, accidents, and complications, but only diseases, accidents, or complications which either appear from spontaneous genesis or follow a traumatism, and belong to both the two great sections of pathology—Medical and Surgical.

At the time when exclusive theories had their sway, it was successively held that there could be no pyohæmia without previous suppuration; afterwards, that there was no pyohæmia without an open wound; and, finally, that there was no pyohæmia without phlebitis. The present formula—may it be the last!—is this: No pyohæmia without sepsine and emboli.

ORIGINAL COMMUNICATIONS.

PHTHISIS AS A NEUROSIS.(a)

By T. CLIFFORD ALLBUTT, M.A., M.D. Cantab., F.L.S.,
Physician to the Leeds General Infirmary, etc.

If I say that for many years past my own thoughts have been busily occupied with those phenomena of several orders which of late have been mixed together under the indefinite name of phthisis, I shall probably be showing only that I am engaged as all my brethren are. If the terrible scourge of phthisis be rife in Leeds, where are the few favoured places which can boast of their freedom? and if my own colleagues are, like myself, incessantly on the watch against this fatal disease, or class of diseases, where is the Doctor whose days are not saddened by its pitiless inroads, and by the abiding sense of his own helplessness? The teaching of Laennec and his followers, which in my student days had as unquestioned a hold upon the schools as an article of orthodox theology at a clerical seminary, had never a firm hold upon my own mind; and ten years ago I wrote in the *British and Foreign Medico-Chirurgical Review* to urge the inflammatory and non-tubercular nature of the disease now known as caseous pneumonia, and to prove that the cheesy masses in this disease were not specific, but of the nature of cold or dry abscesses. These essays have now lost their value, as my opinions have been overshadowed by the rapid advance of similar ones, more thoroughly reasoned out and elaborated, by Niemeyer, Waldenburg, Villemin, Burdon-Sanderson, Williams, and others. I cannot doubt, for my own part, that in many cases of phthisis we have no such thing as tubercle in the strict sense of the term. As a blow upon the knee in one person passes off without farther heed, while in another the lack of rapid repair allows of the initiation of a white swelling—as a scratched pimple, again, within the nose of a vigorous person a scratched pimple is to him and nothing more, while in another it becomes the starting-point of a spreading ulceration, which in months gains ground so far that alæ, septum, and soft palate are threatened, and ere long fall away, destroyed by what is too often called lupus, and therefore left to ravage undelayed—so in the like habit a catarrh may, and unquestionably often does, extend from the lining membrane of the larger bronchial tubes to the smaller, from the smaller to the alveoli, and there developes into caseous broncho-pneumonia, a disease very commonly fatal, without one grain of tubercle in its composition; or, upon this, tubercle may be superinduced by secondary infection; or, finally, we may have the phthisis of miliary tubercle, taking its rise either in some forgotten cheesy gland, or tending to arise in some constitutions, as it would seem, without any previous pyeid infection. All this, and much more, is now so familiar to the Profession, that I feel it would be unfair to the editor of this journal and to his readers were I, in accordance with a promise which he gave me long ago, to publish some lectures embodying these views at large. One species of phthisis there is, however, which I describe in my lectures which is not uncommon, which is quite unexplained by the theories already named, but which has not, I think, been clearly distinguished by any author. The cases have been seen, no doubt, and described often enough, but I think no one has detected their peculiarity as a class, nor has offered any explanation of the mode of their initiation. Under the head of "Phthisis as a Neurosis," I propose, therefore, in the present short essay, to publish that portion only of my intended series of lectures which deals with the classification of this variety of phthisis, and which endeavours to make out its relation to other disorders. Let me begin by reminding the reader that there is a class of phthisical cases which in the explanations of Niemeyer are entirely omitted, as, on the one hand, they are—in the outset, at least—non-tubercular, and on the other hand, they are no extension of catarrh. For example, a young lady has had, let us say, some disappointment in love, or has suffered from some other such external cause of depression. She droops and becomes languid; other changes also are seen in the digestive system and elsewhere; her friends are "anxious about her;" and her Medical adviser examines her chest repeatedly, but without detecting any mischief. Then, however, she begins to complain of cold of afternoons, perhaps has even a slight shivering fit on one or two days, and when she is next seen by a Doctor her temperature is 102°, and consolidation of the upper lobe of one lung is found, or both are involved. There is, perhaps, little or no cough at the time, but this gradually sets in, and the case thenceforth pursues the usual course of consumption, often in a severe form. On a post-mortem examination there may not be a vestige of tubercle, or tubercle may be found abundantly; but that tubercle is not essentially concerned in these cases is evident from the fact that such patients, if taken in time, may entirely recover, and very often do recover, the consolidation slowly melting away without breaking up the organ. Now, a case of this kind, which is too common to need longer description at present, if in all probability it is not tubercular at the outset, on the other hand it certainly is no result of creeping catarrh. Having thus indicated the kind of disease I have under consideration, let me go on to make out its characteristics more clearly. Let me endeavour to ascertain with what other diseases and morbid tendencies this kind of phthisis is associated, and thus, finally, we may be enabled to hazard some guess at its essential nature or immediate causation. In my ideal case I have assumed some depressing passion to have disposed a young lady to this phthisis; but whether such an additional cause be required or not, depends much upon the constitution of the person liable. If the innate tendency to this phthisis be strong, it will come on either in man or woman without any such antecedent depression from without. It is generally seen in young adult life, and not so often like other forms of phthisis seen also in boys and girls on the one hand, and in the middle-aged on the other. Nevertheless, I have two cases of the kind in my note-book, in which the invasion occurred so late in life as 38 and 43 years respectively. The period of the later "teens" is, however, the most dangerous, and the years onward from 20 to 30 in decreasing degree. One of the earliest symptoms, and one seldom wanting, is anæmia. For months or even years a young girl or young man will lose colour, and this waning will increase to actual paller. Beyond the anæmia there will be little else to lay hold of, save that in the girl amenorrhœa will probably be present also in some degree. For this anæmia all kinds of

(a) The materials for the present essay are taken from the Course of Lectures on Practice of Medicine at the Leeds School.

treatment will be put in force; the patient will show a little bundle of prescriptions from various Medical men, which all contain steel in some form or other, and, if circumstances permit, the chalybeate springs of England or Germany will also have been sought, and not perhaps without some decided, though too often temporary, advantage. During all this time the patient will declare that there is nothing the matter, and the anxious mother will reluctantly admit that she cannot pronounce definitely upon any symptom except a certain degree of transient languor, debility, or petulance, especially in hot weather. In a while, however, the appetite begins to fail somewhat, and the tongue takes on a red, irritable appearance, coated sometimes, also, in the middle, with a light white fur. This is a sign of the coming mischief—of the onset of fever, of consolidation in the upper lobe of one or both lungs, and the rather sudden declaration of marked phthisis with local mischief. This form of phthisis is, so far as my small experience as a traveller goes, not uncommon in hot countries, and even in England the hotter weather seems decidedly injurious to the sufferer. If the mischief goes on, menorrhagia and hæmoptysis are often present, the latter symptom being especially frequent; while amenorrhœa may replace the former, even in the earlier stages, and always subsequently. The temperatures present a continued fever, with rather sharp remissions between 100° and 103°. With great care in nursing, *morale*, climate, and Medical treatment, these cases may, and often do, recover; but, on the whole, the prognosis in unfavourable—it lies between catarrhal pneumonia and true tubercle, being less dangerous than the latter, but more dangerous than the former. I think I need not pursue this part of my subject, as the kind of consumption intended is familiar enough; let us next inquire in what sort of persons such attacks take place. I think they will be found in persons closely allied to, if not actually contained in, the class which I have called "neurotic."(b) They would probably be described by their friends as being of a "nervous temperament"—as being vivacious, or even irritable; energetic also, but often in a fitful kind of way—and they are very commonly frank, high-spirited young men, and charming lively girls in society. They often have that kind of good looks which Sir William Jenner attributes to the "tuberculous diathesis" in its narrow sense—in the sense of silky-haired, thin-skinned, slimly built, mobile persons; and I think that they are persons in whom tubercle itself is not unlikely to arise, and that they resemble these more than they resemble the heavier and more sluggish victims of "scrofulous" or broncho-pneumonic phthisis. But of this more hereafter.

If we turn to the diseases found in their relatives, we find a marked tendency to neurotic forms of disease—to chorea, stammering, epilepsy, asthma, bed-wetting, neuralgia, insanity, and the like—we find, also, a tendency to that irritability of the mucous membranes, and to those forms of skin affection which I have ventured to associate with the neurotic phases of disease.(c) Among the diseases more closely allied to the lung disease, I may refer once more to true tubercle, and also to a liability to the more ordinary acute pneumonia of the apices with great constitutional depression, which is no doubt an occurrence of the same kind as my special form of phthisis. If the pneumonia runs an acute course, as it sometimes does with implications of both lungs, we have the phthisis itself in a galloping form. About a year ago I attended a refined lady belonging to a highly neurotic family, and whose children presented the like characters; she had been a nervous, irritable, neuralgic woman all her life, but never actually ill in any serious way. She was worn down by nursing one who was very dear to her, and whose death, which followed, shocked and prostrated her still more. She took to her bed with consolidation of the apex of the right lung, then of the left; in both the mischief spread rapidly, hectic fever ran high, and in three weeks she was dead. Her age was about 43. On the autopsy, which was made in consequence of her death appearing to the family to be very sudden, we could not find a single tubercle in the body; but the apices of the lungs were almost destroyed, and lesser degrees of mischief were found below. I had seen another case a few years before, in which such a galloping consumption occurred after nervous depression in a highly neurotic subject. The son of nervous parents on both sides, the father being odd and eccentric, and the mother actually insane, he was himself one of those heady, impressionable, gay fellows who make our charming prodigals—and a very pretty prodigal he was. Ruined in purse and character, and terribly depressed, though I do not think in any great degree worn out by actual vice, he arrived at home to meet with the reception such parents (or, at any rate, one of them) were likely to give him. A few days later he began to feel more and more exhausted, his pulse and temperature ran up, his right lung solidified and broke down, the left lung followed, and after five weeks of distressing illness he was dead. Here, again, I believe, there was no tubercle, but we neither sought nor obtained an autopsy. This case was the first which impressed me strongly with its probable neurotic origin. Take, on the other hand, a less painful case. A gentleman of highly nervous temperament—and a local preacher, I believe—at any rate, a man of high religious susceptibility, meets with losses in business. His brother, the only relative he knows anything much about, is a rambling, queer fellow, who has been twice in an asylum. My patient loses appetite and strength for a few days, feels shivery, and takes to bed with sudden consolidation of the upper third of the left lung. This consolidation took place in a night, but did not advance farther. The result was a happier one, for the patient recovered in a few weeks, after a period of crepitation, without a bad symptom remaining; but the case was one, I cannot doubt, of the same nature as the preceding, and differed only in severity. In no one of these cases was there any history whatever of "taking cold," or of any undue exposure. Were I to enumerate the cases of phthisis belonging to the same category, I should soon fill many columns; but no one of them is more remarkable, from the present point of view, than that which occurred in the family of a dear friend of my own. His father, a fine man and a ripe scholar, lived to a long old age. His wife died early of "consumption," leaving four or five children, the heirs to a very large estate. The eldest brother became, and I think died, insane. The second, a man of highly nervous temperament, of refined æsthetic tastes, and much personal charm, died of the very kind of phthisis I have endeavoured to describe—a phthisis commencing in sudden consolidation, with some preceding anæmia and nervous dyspepsia, and without preceding catarrh or concomitant tubercle. The third son, my own friend, a fine scholar in a college of scholars, became epileptic in early life; he was likewise asthmatic. Two other children survive, whom I do not personally know.

Again, I have seen a tendency to this neurotic phthisis in the children of parents not especially neurotic themselves, who have, one or both, married late in life. The children of such parents always show a marked delicacy; they have thin, transparent skins, and they are passionate and difficult to rear on account of the caprice of their temper, stomach, and bowels. They decline food, or they vomit it by spasmodic regurgitations, or they shoot it from their bowels; and it is in the later life of such children that I have seen more than once a sudden consolidation of one or both apices usher in the final act of a frail existence. On the other hand, I have been astonished and pleased to see how successful judicious management, both of body and soul, has been in warding off such a catastrophe, and in fortifying the delicate frame, where not only love, but an equal degree of stedfast good sense also, have distinguished the parents. These qualities we are more likely to meet with in parents whose constitutional fault lies in their age rather than in their diathesis. Having, then, cases of phthisis presenting the exact features already described, and having also many cases of catarrhal broncho-pneumonic phthisis, and, more strictly, tubercular phthisis, presenting like characters intercurrently with others of their own, I felt that neither the catarrhal theory nor the tubercular theory would account for all instances. For some time I felt annoyed with these cases, and with the characters like them which cut in upon other cases, because they refused to allow me to rest in the neat hypothesis of (1) catarrhal phthisis, (2) catarrhal phthisis complicated with secondary tubercle, and (3) miliary tubercle. So they were to me for some years, until I began to find, in my own practice and in the writings of alienists, how large a part phthisis plays in neurotic families. Even then, however, it did not occur to me to associate any particular form of phthisis with neurotic disorders, until a few striking cases of my unclassable variety occurred in neurotic families under circumstances which spoke too eloquently to be overlooked. Since that time I have recognised that the kind of phthisis associated with other marked neuroses is in some measure true tubercle,(d) but is in a much greater measure that which I have described. To put it in other words, the members of neurotic families are liable to sudden inflammatory consolidations of the upper lobes of the lungs, not due to

(b) *Vide* Introductory Address, *Lancet*, October 14, 1871.

(c) *Vide Lancet, loc. cit.*

(d) I am satisfied that there is a strong tendency to miliary tuberculosis also in neurotic families, but I have not yet satisfied myself of the precise relation which this bears in them to the phthisis I am now describing.

catarrhs or to tubercles, but which present alarming consumptive tendencies; also, that phthisis occurring in persons not highly neurotic, but subjected to depressing causes, may take a like form; also, again, that pneumonias occurring in neurotic persons, or in persons anxious or depressed in mind, prefer the apices of the lungs, and tend to cross the indefinite line which professes to separate such pneumonias from acute or "galloping" consumption.

If we try to go a step farther, and ask for a pathological explanation of these facts, we approach a land of darkness. The more, however, I study the relations of the disease, the more I am satisfied that the lung mischief is also a neurosis: by which I mean that the lesion is one not originating in the local tissues, but originating in the nervous system, and probably in the nervous centres. The profound antecedent deterioration of the blood and the interference with menstruation point to some such origin also; for these anæmias obstinately decline to be cured by good food and iron, and yield but grudgingly to these allies when to them is added a liberal help of stimulants, both alcoholic and medicinal. By this addition—one in itself, however, peculiarly dangerous to neurotic temperaments—we can sometimes gain our point for a time; but the recovery is partial in too many cases, and the full mischief may appear in spite of our seeming success. I regard the apices of the lungs, therefore, as liable, in certain persons, to take on somewhat sudden consolidation under the influence of nervous causes; but whether the nervous influence be irritative or paralytic it is hard to say. To use Dr. Laycock's convenient word, it is a "trophesy," by which word he would signify a palsy of nutrition. If it be denied that nerve changes can set up such extensive nutritive mischiefs, I can only say that in the present state of our knowledge my opponent is scarcely in a safer position when he denies this possibility than am I when I assert it. On my side I have to point to the sudden invasion of disease without any apparent local cause, but always under circumstances which point forcibly to the nervous system, and in persons whose hereditary tendencies are neurotic; also to many analogies, as, for instance, the sudden erysipeloid attacks in such persons, and their liability to swollen face on the shortest notice.(e) To this let me add that every day is bringing stronger evidence of the fact that in highly organised beings their farther complexity is gained by subordinating all processes, both "animal" and nutritive, more and more to a co-ordinating central system, which centre acts as a great distributor and equaliser of tension—that is, among other things, of nutritive activity—throughout the body. Moreover, evidence is accumulating to show that this governance of nutrition is not exercised merely by the so-called "vaso-motor" nerves indirectly, but directly through some undetected spinal filaments, having central as well as peripheral connexions. Finally, those disorders and diseases which seem to arise as neuroses are very generally found to have, among other characters, that of suddenness and caprice in their occurrence. It would be difficult to quote a better example of this than the sudden and capricious coryzas to which neurotic persons are liable. These catarrhs are in them a phenomenon of the same order as their neuralgias, and they come and go with the same unaccountable activity. A neurotic person will awake in the morning, will begin soon afterwards to sneeze violently; in a few hours the conjunctivæ are injected, the eyes are filled with tears, the sinuses are tense, and the Schneiderian membrane is hot and full—a phenomenon of palsy no doubt due to some chance chill upon the terminal expansions of the fifth nerve, and showing itself in trophic rather than in sensory change. At other times the two sets of events, pain and inflammation, may occur together, and alone or together they vanish—perhaps in half a day—as suddenly as they came.(f)

One word as to treatment; not only because all our work must be carried on with the definite object of relieving disease, but also because by the key of treatment I obtained some farther insight into the doctrine I have ventured to propose. About five years ago, in the old Leeds Infirmary, I drew up some careful tables upon which the course of phthisis was noted in a large number of cases. One of the incidental results of this tabulation was to disclose to me the great value of arsenic in some forms of the disease, and, as farther experience showed, in that kind of the disease which I have ventured to distinguish now as neurotic phthisis. The red irritable mucous membrane of these cases, so far from being a bar to the administration of the drug, was actually an indication for its use; and, allowance being made for the disappointment which inevitably follows the treatment of a large percentage of consumptive cases, I am able to speak very favourably of its effects. I think I had seen arsenic recommended in phthisis by a writer in one of the Medical journals, but the chief impulse to its use in my own practice was derived from its happy effects in the case of a lady who was herself phthisical, and who had borne four highly neurotic children—children in whom herpes, nocturnal enuresis, epilepsy, neuralgia (occurring in the first branch of the fifth of the right side, and only relieved by the local use of aconitine ointment) had occurred, and whose temperaments were all excitable. Here arsenic, empirically given, benefited in a striking manner; and from this experience as a commencement I was led to its use from that time (about half-a-dozen years ago) to the present. The more I have seen of the results of arsenical treatment, the more have I been led to confine its use to the cases of phthisis which in this essay I have called neurotic; and thus the more have I been led by an empirical result to the establishment of my general conception, that this peculiar form of phthisis is one phase in the changes of the neurotic cycle, and that it should be classified, therefore, with insanity (also of certain definite kinds, of which more hereafter, and requiring arsenic in its earlier stages at least, if not throughout), with epilepsy, with certain definite kinds of skin diseases,(g) with peculiar irritative catarrhs and other fluxes, with asthma, with neuralgia, stammering, and with other neuroses too numerous now to repeat. All this bears out a belief which I have often published before, and which forces itself upon me more and more year by year, that arsenic is not a specific for skin diseases in any wider sense than this: namely, that it supplies something required in that large class of persons who present these various signs of one diathesis—the neurotic—and that of these it relieves not their skin diseases only, but their other neuroses also, including even their phthisis and their anæmia, against which iron itself is often powerless. In giving this sketch of the effects of arsenic, however, I must add in conclusion that, without the mental and moral treatment required in these patients, all drugs may fail. Above all things they must be made calm, and perhaps even happy, if success is to crown our efforts. It is the duty of the Physician to point this out clearly to the patient and to those about him, but in the lack of it too often his failure is involved. *Sic anceps varios rotat alea casus.*

Postscript.—When this manuscript was ready for the printer, and after the delivery of my Address in Medicine,(h) in which I also allude to the neurotic diathesis, I received Dr. Anstie's work on Neuralgia, and heard his discourse on hereditary neuroses, at Wakefield, on October 17. The views therein expressed by Dr. Anstie have a very deep interest for me, in that they support so strongly the views which I have set forth. I have regarded the matter somewhat differently from Dr. Anstie, but I hope there is nothing in my observations which his own will contradict.

(e) For an estimate of the importance I would give to hereditary history in elucidating all disease, see a paper on "Classification of Disease," in the second volume of St. George's Hospital Reports, 1867.

(f) There are few more curious instances of the way in which words, like logs, may barricade the gates of knowledge, than the impediment caused to true conceptions by the words "motor nerve," "sensory nerve," etc. The qualifying word "motor" fixes a belief that the nerve itself has some property of massive motion, and keeps out the true idea that nerves are mere equalisers of tension or propagators of its disturbance. What the result of disturbance so propagated may be, or what the result of interference with its equalisation, depends solely on the things to which the nerves are tied. Why, then, the recent bewilderment of some worthy physiologists, who are obliged to admit that "trophic nerves" are closely allied to motor nerves? *Rightly looked at, every nerve is a trophic nerve*—is the medium, that is, of molecular change, being extended from point to point. Whether this molecular change result in massive contraction of the attached tissue, or otherwise, is a matter of the quality of the tissue affected.

(g) *Vide* Essay, St. George's Hospital Reports, *loc. cit.*

(h) *Lancet, loc. cit.*

GOVERNMENT has granted £300 from the Royal Bounty to the children of Dr. Livingstone.

NATURAL SCIENCE SCHOLARSHIPS AT CAMBRIDGE.—Trinity College, Cambridge, offers one or more Foundation Scholarships, of the value of £80 a year, for proficiency in the Natural Sciences. The examination will commence on April 5, and be open to all undergraduates of Cambridge and Oxford and persons under 21 who are not members of the Universities. St. John's College, Cambridge, offers an Exhibition of the value of £50. The examination in Chemistry, Physics, and Physiology will commence on April 12, and be open to persons under 20, not members of the University, and to undergraduates in their first term. Further information may be obtained on application to the tutors of the respective colleges.

ON LIGATURE OF THE SUBCLAVIAN ARTERY.

By H. H. A. BEACH, M.D.

Assistant-Surgeon F. P. Staples, Medical Staff, published in the *Medical Times and Gazette* for July 22, 1871, an article entitled "Observations on Ligature of the Subclavian Artery —A New Incision suggested," in which he advocated the employment of a method different from the one usually practised. He has performed it for some time, and brings it before the notice of Surgeons with the hope of overcoming the difficulties of tying that vessel in the third stage. He calls the posterior belly of the omo-hyoid muscle the true guide to the artery, and pronounces it far more reliable than the anterior scalenus muscle and tubercle of the first rib. The first steps of the operation are devoted to the display of the posterior belly of the omo-hyoid. This having been accomplished, it is directed that "the edges of the wound should now be retracted, and the superior retractor should carry with it the omo-hyoideus; and when this has been done, the white cords of the plexus, with the artery inferior and internal to them, will be observed to occupy the bottom of the wound." The details of the operation proposed by Surgeon Staples certainly convey the impression that it would not be difficult in its execution; that, as a rule, it could be performed with ease in any case requiring that treatment. The value of the operation as compared with others rests upon the theory that the posterior belly of the omo-hyoid muscle is the true guide to the artery. This is claimed by Surgeon Staples, and believed by him to be corroborated by his experience. Opposed to this are the well-known facts that the posterior belly of the omo-hyoid is occasionally wanting, and that anomalies of the muscle are not infrequent. "The muscle occasionally is attached to the clavicle instead of the scapula, arising from the former bone about its middle; and in such a case the posterior belly is absent." One instance has been recorded (R. Quain) in which the posterior belly alone was present, and was connected to the hyoid bone by a band of fascia. The muscle has likewise been observed double, one slip being attached to the clavicle, and the other to the normal place of origin on the scapula.(a)

"The omo-hyoid is in some instances immediately over the artery."(b)

"In a case operated on by Professor Todd, this muscle (omo-hyoid) lay below the clavicle, and it became necessary to draw it up and divide it before the artery could be exposed."(c)

In some remarks made by Sir William Fergusson after performing the operation, which were published in the London *Medical Times and Gazette* for February 25, 1871, he stated that "many attempts had been made in the ward to determine the precise position of the omo-hyoid muscle, but without success, and during the operation there was some little trouble in making out this point." He considers it a better guide than the scalenus, but said that he had performed the operation twice only.

In dissections of the neck, I have observed that the posterior belly of the omo-hyoid was wanting in two instances; and I once found an anomalous muscular slip—passing from a point on the scapula in front of the origin of the omo-hyoid, forward and upward, crossing the subclavian artery, vein, and brachial plexus—to be inserted by a small well-rounded tendon into a prominence of the clavicle, just behind the insertion of the subclavius muscle and outside of the scalenus anticus.

It is not difficult to imagine that the case requiring operation may be the *occasional* one, where the posterior belly of the omo-hyoid is wanting, or where some of the anomalies of that muscle are present; yet these contingencies are not provided for by Surgeon Staples. The results from the use of any method must depend upon the facilities which it offers for the finding of the guide to the vessel, and any innovation upon what has been proved to be reliable as such should, after careful consideration, be found to possess stronger claims than those presented by the method of Surgeon Staples. Without doubt, success has followed the performance of the new operation, but it offers chances for embarrassment to the Surgeon, and consequently increased risks to the patient, beyond the methods now in use.

With these chances before him, I doubt if a Surgeon is justified in changing his practice from what is established as safe and sure to what promises little beyond uncertainty.

Boston, U.S.

(a) Quain's "Elements of Anatomy," seventh edition, p. 193. London, 1837.
(b) Ibid., p. 366.
(c) Power's "Surgical Anatomy of the Arteries," p. 160.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

GUY'S HOSPITAL.

The following cases are of interest as forms of disease affecting the buccal cavity of children. The cases of ranula indicate that this kind of tumour of the mouth is often congenital, and may, in the first days of life, be of danger by preventing the infant suckling. They would seem to negative the general truth of the explanation frequently given of their origin as being due to dilatation of Wharton's duct; for it is difficult to conceive how so small a tube can expand into cysts of this size. They prove, too, that in the treatment of ranula it is not always necessary to excise a portion of the cyst-wall or to promote contraction by setons, but that recovery will follow from merely evacuating the contents of the cyst by means of a free incision.

CONGENITAL RANULA.

(Under the care of Mr. BRYANT.)

Mary B., aged 4 days, was brought to Mr. Bryant for a transparent swelling, the size of a large almond, beneath the tongue. It had existed from birth, and by its gradual increase had prevented the child suckling. It was clearly a ranula. It was opened freely; the ordinary mucoid fluid escaped. A good recovery followed.

Mr. Bryant had operated upon a brother of this child, aged 4 days, eighteen months previously, for the same form of congenital tumour, with the like result. The tumour was so large as entirely to prevent suckling.

Eliza K., aged 7 weeks, was brought to Mr. Bryant at this Hospital for a double ranula of a congenital nature, which prevented suckling. The cysts pressed the tongue upwards, and were above the level of the gums. They were both opened freely from end to end, and a good recovery followed.

William S., aged 3 months, came under notice with a congenital ranula on the left side of the tongue. Its increase had been gradual. It was opened freely, and a good recovery took place.

WARTY GROWTH ON TONGUE OF CHILD.

(Under the care of Mr. BRYANT.)

Alice B., aged 14, applied at Guy's Hospital with a warty growth on the posterior part of the tongue. It had been accidentally discovered three weeks previously on looking into the mouth for a sore-throat. The wart was about the size of a sixpence. Nitrate of silver was freely applied to its surface, and a good recovery followed in about one month.

SALIVARY CALCULUS IN DUCT OF SUBLINGUAL GLAND.

(Under the care of Mr. BRYANT.)

Eliza S., aged 22, came under treatment for a painful swelling situated beneath the tongue. It had been felt for many months, and was more painful and much increased in size after eating, the pain passing up the side of the jaws. It gradually subsided between meals. On examination, a small calculus was clearly to be felt occupying the orifice of the duct of the left sublingual salivary gland. With the nail it was readily picked out. In one week all symptoms had disappeared. The calculus was about the size of a hempseed.

INFIRMARY FOR EPILEPSY AND PARALYSIS.

ON NEURO-SYPHILITIC AFFECTIONS.

(Cases under the care of Dr. ALTHAUS.)

The proportion of syphilitic to idiopathic affections of the nervous system, which have for the last five years been treated at this Infirmary under the care of Dr. Althaus, has shown a singular constancy, as it has in each twelvemonth been very nearly 5 per cent. of the total number of cases which have come under observation. On further analysing the nature of these affections, another curious fact was elicited—viz., that

the number of cases of syphilitic paralysis and palsy from non-specific disease bore a constant relation, as, out of 100 cases of paralytic affections of all kinds, in twenty a syphilitic origin could be clearly traced. Without attaching undue importance to these numbers, comprising as they do but a limited area of observation, Dr. Althaus thinks it well to put them on record, as showing a much more frequent occurrence of neuro-syphilis than is believed in by many Practitioners. On the other hand, syphilitic epilepsy appeared to be rare, unless all cases of neuro-syphilis in which convulsive attacks occurred were put down as epilepsy, which would obviously be wrong. Amongst paralytic affections, palsies of some of the cerebral nerves ranked first in frequency; then followed hemiplegia and paraplegia. Local palsies of spinal plexuses or nerves were of rare occurrence; but a more or less considerable impairment of the memory and intellect was present in no less than 60 per cent. of the cases treated at the institution.

The diagnosis of neuro-syphilis is not always easy, and requires an intimate knowledge of the peculiar clinical features and phases of the distemper. In many cases, of course, the connexion between cause and effect is so evident, that the patient himself makes a correct diagnosis before the Physician has time to do so. There has been a hard chancre, an indolent bubo, early affections of the skin and throat, and perhaps a painful node on the shin-bone; then the patient, who lives in constant dread of something more and worse to follow, finds some morning on awakening that one of his eyelids droops, or that he has sensations of pins and needles in the feet, and has lost the power of walking to a more or less considerable extent. This he at once attributes to the same dread cause which has given rise to all his previous sufferings, and the diagnosis is therefore "cut and dried" for the Doctor. But this is by no means the rule. Although it seems absurd, yet there are patients to be found who strongly deny having caught infection from an impure source, and ascribe all their ailments to overwork, anxiety, mental shock, etc.—circumstances which probably act occasionally as exciting causes, but are not at the real bottom of the malady. We must, therefore, when the symptoms are suspicious, never be satisfied with the denial of a primary syphilitic affection by the patient, but take such denial for what it is worth. Sometimes, in the further course of the treatment, a tardy confession is obtained. Again, in other cases, the primary affection has been so slight that it escaped notice at the time, or has been really forgotten; or an unsuspecting husband is infected by a faithless wife, or an illicit lover by his indiscriminating mistress, the vehicle of contagion being sometimes poisoned leucorrhœal mucus, primary affections being and having been absent. In all such cases we have to trust entirely to the clinical features of the case as a guide to our diagnosis.

What, then, are the peculiar features of neuropathy from venereal disease in contradistinction to idiopathic nerve-disease? They are—

1st. *The great variety of symptoms* which are observed in neuro-syphilis, while in other non-specific nerve-disease the range of symptoms is more limited. In this particular, neuro-syphilis resembles hysteria, for we find all kinds of paralysis, spasm, hyperæsthesia, and anæsthesia occurring together, or succeeding each other rapidly. If this is observed in men, or in unimpressionable women, it affords considerable suspicion of syphilis.

2nd. *The irregular or intermittent course* of neuro-syphilitic affections distinguishes them from their idiopathic namesakes. Thus, for instance, a non-syphilitic patient affected with aphasia only improves slowly or not at all under the best treatment; a syphilitic patient may have aphasia for half an hour, a day, or three days, and then completely recover his language. Cases of this kind of intermittent aphasia have been described by Dr. Hughlings-Jackson as epileptic aphasia; but Dr. Althaus has never seen them excepting in syphilitic subjects, and does not think them in any way connected with the true epileptic condition. Intermittent amblyopia and amaurosis also occur in neuro-syphilis, but we cannot claim these as epileptic affections any more than attacks of neuralgia or ague.

3rd. *Mental symptoms*, which in a large number of idiopathic nerve-diseases are absent, are very frequent in neuro-syphilis. The memory is more apt to suffer than the intellect, but the latter is also often impaired.

4th. *The general appearance* of neuro-syphilitic patients is mostly sallow and miserable, while patients with idiopathic neuropathy often look the very picture of health. In fact, a frequent complaint of the latter is, that their friends and relations do not believe in their complaints because they look so well. The peculiar fusty smell of syphilitic patients, which was mentioned as characteristic by Dr. Gull, at a recent meeting of the Clinical Society, has several times been most strikingly present in Dr. Althaus' patients.

5th. *The results of treatment* are in the majority of cases quicker and apparently more satisfactory in neuro-syphilis than in non-specific nerve-disease; but relapses are more frequent in the former than in the latter.

We now proceed to give a few cases of neuro-syphilis which have been recently under observation at the Infirmary.

Case 1.—*Intermittent Aphasia and Paralysis—Later on, Syphilitic Hemiplegia of the Right Side.*

A carpenter, aged 42, admitted October 31, 1870; has had gonorrhœa several times, and had a hard chancre five years ago. There have been slight secondary symptoms off and on, affecting chiefly the fauces and the skin. Two years ago he suddenly lost his speech for about fifteen minutes; but, as he then completely regained it, nothing was thought about it at the time. Since then, however, he had again lost his speech on several occasions for an hour or two, but underwent no special treatment. In July last he began to have intermittent attacks of paralysis, which always affected the right side, but only lasted for a few hours at a time, after which he again felt quite well. After having had about a dozen such attacks, he at last, on August 30, had a real apoplectic seizure, accompanied with loss of speech and consciousness, and total paralysis of the right side. His consciousness returned in about three hours, his speech, to some extent, at the end of the first week. The distortion of the face lasted only a day or two, and the leg also began to improve after about a fortnight. The arm only improved to a slight extent during the first month, and has lately been quite stationary, so that he is thoroughly disabled from working.

Patient looks wretchedly out of health—in fact, thoroughly broken down. Tongue deviated to the left side and fissured. No affection of the cerebral nerves; but he complains of a constant aching pain at the back of the head, and frequent flushes of the face, which make him feel restless and miserable. Memory has been gradually getting worse; speech is thick and somewhat hesitating. The attention is apt to wander from one thing to another, and since the paralytic attack "he has said and done foolish things." Arm is to a great extent useless, through a semi-paralytic condition of the deltoid, serratus, trapezius, triceps, and extensor digitorum communis muscles. There is slight contraction of the biceps, and flexors of the hand and fingers, and a certain amount of pain at the insertion of the deltoid. Slight anæsthesia and coldness of the whole upper extremity. Thigh and leg are weak; slight contraction of hamstring muscles. Digestion tolerably good; bowels regular; no disorder of the chest or genito-urinary organs. A small and tender node is on the left shin-bone, and at the right hip there is a rather large cicatrix from a syphilitic ulcer, which healed about two years ago. Ordered potass. iodidi gr. v., ter. die.

November 7.—No change in the patient's condition. He takes the iodide well; this was, therefore, increased to ten grains thrice daily.

14th.—No change in the paralysis; no iodism. Fifteen grains ter. die.

21st.—Same report. Scruple doses of potassic iodide.

28th.—Slight epiphora and coryza; no improvement in paralysis; on the contrary, the contractions, both in the arm and leg, are increasing. Continue iodide.

December 5.—Contractions still increasing; iodism is getting troublesome. The iodide was therefore given up, and an indifferent mixture substituted for it; at the same time galvanisation of the cervical sympathetic and of the suffering nerves of the arm and leg was ordered three times a week.

12th.—First application of the constant current to the sympathetic removed the pain from the back of the head; arm and leg feel a little stronger; immediately after the application the paralysed side is warmer than the healthy one.

January 30, 1871.—Patient has had seventeen applications of the constant current. He is able to use arm and leg so well that he wishes to be discharged, as he feels able to return to his work. Has not attended since.

The foregoing is one out of a number of cases of syphilitic hemiplegia which show that *iodide of potassium has no curative effects in syphilitic hemiplegia*, and that, if the patients do not recover by the reparative process of nature, we must have recourse to the same agent, which is the only one of real use in idiopathic hemiplegia—viz., the constant galvanic current.

(*To be continued.*)

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Medical Times and Gazette.

SATURDAY, NOVEMBER 18, 1871.

THE TRIAL OF KELLY FOR THE MURDER OF TALBOT.

On the evening of July 11 last, Thomas Talbot, who had been in the Irish constabulary, and had greatly distinguished himself in the suppression of Fenianism, was making his way home through the streets of Dublin. A man—Kelly—came up to him, and shot him in the open street. This man fled, but was never lost sight of until captured, which he was forthwith, after shooting a constable through the thigh with the revolver he had in his hand. Talbot walked, with some help, to the Richmond Surgical Hospital, where he came under the care of Dr. Stokes, junior, who first saw him about two or three o'clock on the morning of the 12th. It was then seen that a bullet had entered a little behind the mastoid process, and by probing it was found to have passed inwards towards the spine. Dr. Stokes imagined he could detect the bullet, and proceeded to enlarge the wound, so as to remove it, but failed to do so. At this time Talbot was perfectly conscious; his pulse was good, and his voice strong, but he was very pale. He had not been sick, but there had been some bleeding from the wound. He was put to bed, and next morning he was examined by Dr. Stokes, Professor Smith, Mr. Hamilton, Mr. Tufnell, Dr. M'Donnell, and Dr. Baxter. The wound was again probed, and it was resolved, *nemine dissentiente*, to try to remove the bullet. In the probing, Nélaton's porcelain probe was used, without any decided result. The wound was again enlarged; in doing so, two arteries were cut, one of considerable size; the latter was secured by a tenaculum and ligature, both of which were left in the wound. No bullet could be found, and the man was put to bed. Next day the only bad symptom was a tremulous tongue. On Friday he had severe rigors. On Saturday evening he was much excited. On Sunday morning, his brother, who was with him, noticed some bleeding from the wound: this was promptly stopped. Later in the morning he was raving; in the afternoon he required half a dozen people to keep him in bed. Finally, he became comatose, his pupils widely expanded, his breathing diaphragmatic, and he died the same evening. An inquest was held, and a post-mortem examination ordered. This was made by Dr. Stokes, who discovered some particles of lead embedded in the lambdoid suture. A portion of the atlas was broken to pieces, and some particles of lead were found in the neighbouring textures, which were in an inflamed condition, bathed in pus. The membranes of the spinal cord were also covered with pus. Most unfortunately, the bullet itself was not traced. There were some indications (post-mortem), according to Mr. Tufnell, that it had lodged under the scapula.

If ever a case looked clear, this is surely one. The law of England is still as laid down by Hale—"If a man give another a stroke, which it may be is not in itself so mortal but that with good care he may be cured, yet, if he dies of the wound within a year and a day, it is homicide or murder, as the case is." In another case—Queen *v.* Pym—Mr. Justice Erle said —"I am of opinion that when a dangerous wound is inflicted, and the best advice taken, and an operation performed on that advice, which is the immediate cause of death, the party giving the wound is criminally responsible."

Now, here is a case in point. A man is shot in the street; he is not killed on the spot, but taken to a Hospital; the Surgeon who sees him thinks it best to attempt to extract the bullet he has reason to believe is in the wound, but fails to do so; the propriety of the attempt is supported by some of the best reputations in Dublin—no mean school of Surgery; and according to these men, the operation is skilfully, if unsuccesfully, performed. Next day the patient is well enough, beyond a slightly tremulous condition of the tongue, which, as the patient had been a confirmed spirit-drinker, was by no means astonishing. On Friday we have rigors, the mark of commencing suppuration. On Saturday, the inflammation had extended further; the coverings of the nervous system were affected; and from this date the sequence is rapid. No great amount of change is needed to cause death in the vicinity of the medulla oblongata, and so violent delirium soon gave way to coma, and coma to death.

The chain could hardly be clearer, and yet we have audacious men coming forward boldly in open court to say, "This man's death lies not at the door of his assassin, but of his Surgeon." We have read all the evidence in this case with the utmost care. We have read what has little pleased us—the browbeating of witnesses and the reckless use of indefensible language. The wrangling of barristers, if common, is not pleasant; but to hear of one barrister declaring that his opponent shall answer for his words elsewhere, is something unheard of except on this trial, at the present day. Still worse were the altercations between judges, jurymen, and barristers; worst of all, the outside abuse of one of the most honourable and independent judges on the bench. But it needed a combination of all these things, with a verdict of acquittal to follow, to render this trial of Kelly one of the greatest legal scandals of modern times.

Of all the features in this trial, however, there is none so interesting to our Profession as the audacious charge advanced by the counsel for the prisoner of *mala fides* on the part of Dr. Stokes. According to the law of the land, if a man has suffered an injury at the hands of another, such as to require Medical aid, and yet perish in spite of it, it is not necessary to show that that Medical aid was administered with more than ordinary skill to enable a verdict of murder to be brought in. It is enough that he should have been attended by a properly qualified Medical Practitioner who has done what he could, honestly, altogether apart from the fact that men of greater skill in their Profession might have been called in. When, therefore, the question of skill was imported into the case, the counsel for the prosecution promptly objected to such a line of defence, and it was ruled by the Lord Chief Justice to be inadmissible. Unfortunately, the Lord Chief Baron did not take the same view, whereupon Mr. Butt most unwarrantably entered the plea that Dr. Stokes had in his treatment of Talbot behaved most recklessly and with no *bonâ fide* intent of procuring his recovery. This is the first time such a plea has been entered, and we should have expected, especially when a reputation like that of Dr. Stokes, jun., was in question, that it would have been supported by a formidable array of skilled witnesses. Yet how did it end?—By not one tittle of evidence being produced to

warrant such an assertion. Nevertheless, by this time it had suited Mr. Butt's purpose. He had been enabled to throw dust in the eyes of the jury, and it was nothing to him though a meritorious young Surgeon should be ruined, provided he procured the acquittal of his interesting client and the applause of Ribbonmen and Fenians, even though coupled with the execrations of all good citizens.

It is true that in his summing-up the Judge cleared away all these cobwebs regarding alleged malpractice. He told the jury plainly that the question of good treatment, bad treatment, or no treatment at all was not before them; but the indignant virtue of Mr. Butt, the audacious insinuations of Mr. Falkiner, and the scornful laughter of Mr. Keogh had been too much for them, though unsupported by a tittle of evidence. There had been unusual difficulty in procuring a jury to try this case—men shirked attendance on every possible excuse; for they feared, if they found Kelly guilty, that they too might share the fate of Talbot. And so, this quibble being raised, and evidence as to treatment being admitted, they eagerly embraced it—what is most wonderful, unanimously—and acquitted the prisoner of a crime for which his advocates did not venture to defend him. It was not even contended that Kelly did not fire the shot that killed Talbot; the contention was that Dr. Stokes was guilty of his death. Usually much latitude is allowed to counsel in defending a prisoner, and people are not greatly accustomed to care much for what they say; but it is too much for a man to defile another's character as Mr. Butt did that of Dr. Stokes, and that the latter should have no remedy.

Doubtless it will be gratifying to Dr. Stokes to see the opinion of our highest Surgical authorities as given in the *Times* of November 16, and appended to this article, and how thoroughly they clear his character. Nevertheless, it is a shame that such an opinion should have been required in such a case, and we cannot help feeling that the ruling of the Lord Chief Baron is at the root of the evil. Unfortunately, this rule now holds good until annulled by higher authority; so that this is probably not the last time we shall hear of the plea of recklessness and *mala fides*—only we hope it will be raised next time in England.

With a view to such an occurrence, it may not be amiss to point out one or two salutary lessons to be drawn from this unfortunate case. The first is, the necessity, when one has to do with a case likely to come before a court of law, of taking the very greatest care in coming to a diagnosis, and adopting a line of treatment. Above all, nothing hazardous should be attempted, provided the exigencies of the case do not demand it. Let the Practitioner think that he may have to stand in a witness-box and justify his acts to the nation at large, and not to his own mind only. Such a reflection will, at all events, teach him caution.

Next—and what, perhaps, is more important, because more likely to be overlooked—is the advisability of taking note of everything as it occurs. The senior resident pupil on this occasion, Mr. Vesey, was most unmercifully bullied by Mr. Butt because he had made two sets of notes—one at the time each occurence took place, the other later—and the two varied somewhat. They differed in this respect: the former consisted of facts and inferences mixed up together, mainly the result of his own observation; the latter contained the experience of others also, to which, of course, he could not swear. The grand rule is this: take as copious notes as you please of everything that passes around you, but avoid all inferences—either keep them apart or, better still, in your own mind. The very first note Mr. Vesey made involved this mistake, and gave Mr. Butt abundant material for bullying him. He stated in his notes that when Talbot came in he was pale from loss of blood. No doubt he was pale, and no doubt he had lost blood; the mistake was, connecting the two as cause and effect. Fright, shock, or half a dozen things, might have made the man pale. But Mr. Butt promptly seized the handle thus afforded him. Here was a man, said he, pale and weak from loss of blood, and yet Dr. Stokes sets to work at once to operate on him, and thus, in one way, was guilty of recklessness. Other portions of these notes erred in the same way, and so their well-meaning and intelligent author was put to shame before the Court, partly through his own mistake, partly through Mr. Butt's violence.

We should be glad to sink the whole miserable transaction in oblivion, but we fear its memory will live for many a day, and prove fruitful in other deeds of violence and injustice.

P.S.—The last thing we hear of this extraordinary case, just before going to press, is, that the jury acquitted Kelly *because a gunsmith examined the particles of lead found in Talbot's skull microscopically, and found they were part of a slug, and not of a ball such as Kelly used.* This bangs Banagher! We are bewildered, and ask what it all means? Who was this wonderful microscopist, and what were the means of identification he used?

We have much pleasure in publishing the following statement:—

"The undersigned, having carefully considered the evidence in the recent trial for the murder of Police-constable Talbot, and believing that certain statements made during the trial are likely to affect very injuriously the Professional reputation of Mr. William Stokes and the Surgeons who acted with him, desire to record their opinion that the bullet-wound in the neck of Police-constable Talbot was the direct and sole cause of his death, and that no blame can be justly assigned to any of those by whom the wound was treated.

"Cæsar H. Hawkins.
"Wm. Fergusson.
"T. B. Curling.
"James Paget.
"Prescott Hewett.
"J. Ashton Bostock.
"John Eric Erichsen.
"John Birkett.
"George Pollock."

THE BROWN INSTITUTION.

Many of the most zealous pathologists of this country, and especially such of them as have studied in the great Continental schools, have for the last few years felt with increasing regret that England is totally unsupplied with means for the study of experimental pathology. It is true that even in Germany laboratories specially instituted for the study of this branch of scientific Medicine can scarcely be said to exist: under the professors of pathological anatomy and physiology, however, one is always able to make any investigations he may wish on disease induced in the living animal. In this country, on the other hand, it is only within a year or two that even physiological laboratories have been built; and meanwhile, many of the experiments in pathology which have been undertaken have been performed, we are afraid, with too imperfect resources of every kind to be of much scientific value in their results.

Every true student of pathology, therefore, must have hailed with extreme satisfaction the announcement made, now many months ago, that the Brown trustees had resolved, in conformity with their obligations, to erect an institution "for the study of the diseases of animals, and, if possible, for their cure." And many seem to have even allowed themselves to be carried away by this feeling; for it is a fact, that the prevailing idea in London at the present moment is that the Brown Institution will be simply a laboratory for experimental pathology on a very large scale. This is quite a misunderstanding, for there will be found in it just as extensive provisions for the cure of the sick animal as for the experimental investigation of morbid processes. The Institution will be, in fulfilment of the desire of its benevolent founder, not only a pathological institute, but a veterinary Hospital. And that what we have said is true may be learned from the following description of the place:—

The Brown Institution buildings are situated in a piece of ground of about an acre and a half in Wandsworth-road, Nine Elms. Occupying the front part of this space, and separated

from the road by a garden, are the houses of the resident officers, behind which the rest of the ground may be described as a garden in which the buildings proper have been erected. Extending along one side of this garden for half its length is the stable for large animals; flanking this is a smaller erection for dogs, etc.; while situated almost in the middle line of the back half is the laboratory. Thus the two departments are quite distinct from each other; and a row of trees running from the dwelling-house to the laboratory will make this division of the premises still more complete. At either end of the dwelling-house, also, there is a small building; one is intended for a post-mortem theatre, the other is a small stable, etc.

Of the wards for the animals we need not speak at length. There are stalls for at least seven large animals, besides accommodation for a great number of sheep, dogs, etc. The furnishings are all of the most recent and most substantial kind; every room and every stall will be warmed by hot-water pipes; and in respect of the sewage and ventilation we have only to mention that the arrangements for their perfection have been carried out under the superintendence of Professor Burdon-Sanderson himself. Light, also—so necessary for health—has been abundantly admitted by large ventilating windows.

The laboratory is a single large building, with one floor of rooms above the level of the ground, and a second partly under it. The former of these rooms are intended for working-rooms or laboratory proper, and are five in number. One is the Professor's apartment, one is for the Resident Superintendent, and a third for the more ordinary apparatus; while the fourth and fifth are being fitted up as general laboratories for experiment and microscopy respectively. In these, although they are not yet completed, one may see the general arrangements of the fixtures and furniture. Along the back and front wall of each runs a fixed table, conveniently high for the student working at it, either in the sitting or in the standing posture. The front benches are well lighted by large windows with a northern aspect, and furnished with plain glass. At these benches there will be allotted to each student a definite place, and there he will find a supply of water and gas for his special use. In the centre of each room is a square movable table; and several cupboards for apparatus, etc., complete the more fixed furniture of the place. All these rooms will be heated by warm-water pipes, and by these only. The private rooms of the officers have very much the same arrangement.

The lower floor is reached from the upper by a trap in the apparatus-chamber. It contains four rooms, which will be used chiefly for chemical purposes. They are furnished with warm-water and cold-water pipes; while in one will be fitted up a chemical hearth, and in another arrangements for organic analysis. The fifth room on the lower floor is entered by a separate door at the side of the building; it is fitted up in a careful manner as a stable for small animals belonging to the laboratory.

No apparatus are yet to be seen; but in respect of these we understand that there will be no lack of whatever is required for operation, injection, cultivation, chemical and microscopic investigation, and so on. The particular microscope used will probably be Hartnack's, and gas will be employed when artificial light is required.

In regard to the working of the Institution, there are three special offices connected with it, and these have been already filled up in a most satisfactory manner. The Professor-Superintendent is Dr. Burdon-Sanderson; Dr. Klein, from Vienna, is the Resident Superintendent of the laboratory; and Mr. Duguid holds a similar post in the Hospital. The election of such a staff reflects the greatest credit upon the trustees, and is an assurance that the work of the place will be most earnestly and fully carried on.

Attendance will be given daily by the Veterinary Surgeon for the admission of animals, and his time will be otherwise occupied in the post-mortem room and in the museum, which will be fitted up in the dwelling-house.

In the laboratory will be done all kinds of work of an experimental nature relating to pathology, whether pure or with the aid of chemistry and the microscope; for both these last there will be especially complete provision.

The Institution will be ready certainly before Christmas, and, we understand, will be open to pupils the whole day. It is easily reached, either by river, rail, or omnibus.

THE WEEK.

TOPICS OF THE DAY.

We are glad to see that a timely protest has been raised by a Fellow of the Royal College of Physicians, in the *Times* of Wednesday, against the attempt which is being made to obtain funds for a new "Women's Hospital," "to enable the Medical staff (the working part of which is to consist of women) to deal effectively with cases requiring Surgical treatment, and with the more serious class of cases generally." The writer of the protest urges that already many of the best Hospitals in London are languishing for want of funds; that already there are the Samaritan Free and the Soho-square Hospitals where the Surgical diseases of women are especially treated; and that there is not a woman in England who has ever performed the operations which ought to be done weekly in such an institution. We do not know what may be the success of this monstrous appeal; the more absurd and unnecessary the object, the more likely it is that some silly partisans will be found to subscribe money to it. But in the interest of the women-patients, if not of the women-Doctors, it is to be hoped that some check will be given to the undertaking by the letter of the Fellow of the Royal College of Physicians. He writes:—

"Where have these ladies acquired their training for such operations as are here indicated? It is well known to the Profession that the cases here alluded to are among the triumphs of modern Surgery, and that the conservative results which have crowned a few well-known names with European reputation are the product of immense opportunities for practice, operations repeated on hundreds, precautions founded on a long experience, and costly preparations to seclude the sufferer from every fluctuation of temperature, and from every chance of contagion."

We have little to add to this, but cannot refrain from strengthening the case of the "Fellow of the College of Physicians" by some facts from the "Manchester Medical and Surgical Reports" just issued. We find there that in the Provincial Hospitals of Manchester, Leeds, and several other large towns, thirty-six cases of ovariotomy were observed in the year 1870. Of these patients, twenty-one died, and only fifteen recovered. In the Samaritan Hospital, Mr. Spencer Wells can show that, of thirty-six cases, only ten would die, and twenty-six recover. He can show still better results in private practice, and so can Dr. Keith, of Edinburgh—the two operators who have the largest experience in Great Britain. If, then, there is such a fearful difference between two Surgeons of very large experience and very able Surgeons of large experience in general Surgery, what an awful mortality may be expected if this operation is to be practised by women who have no experience whatever in any Surgical operation!

The inquiry for the missing child from the Hampstead Small-pox Hospital has proved abortive. We should think it more than likely that the child died, and was buried under another name. Although the matter may be explained on the supposition that the features of the child were disfigured by the disease, and that the nurse neglected to change the bed-card, it constitutes by far the most serious charge yet brought against the Hospital.

Mr. Disraeli has been elected Lord Rector in the University of Glasgow by a majority in all the four nations, and by a large total majority.

Sir William Stirling Maxwell has been elected Lord Rector of the University of Edinburgh. His opponent, Sir Roundell Palmer, was beaten by a majority of 92.

We can sympathise with the opposition which has been raised by the inhabitants of Hampstead to the erection of a permanent Small-pox Hospital there. Mr. Stansfeld seemed to hold out but little hope to the deputation that waited on him early in the week of any interference on the part of the Local Government Board to induce the Metropolitan Asylums Board to seek another site. It certainly does seem a mistake to have fixed a Small-pox Hospital in one of the chief health-resorts of North London. A member of the deputation to Mr. Stansfeld said that the inhabitants of Hampstead would be willing to incur the expense of removing the Hospital. If this be the case, the Asylums Board should undoubtedly find a site in a less popular situation.

At a special meeting of the Senatus Academicus of the University of Edinburgh, held on Saturday last, the following motion was proposed and carried by a majority of 14 to 13 :—"That the Senatus represent to the University Court the propriety of rescinding their resolution and regulations in reference to the admission of women to Medical education in the University; without prejudice, however, to the rights and interests of those ladies who have already entered upon a course of study in pursuance thereof, and without prejudice to the right of Professors to give separate instruction to ladies in such classes as the University Court may from time to time think fit and approve." This shows that at least a majority of the Senatus are beginning to be alive to the bad effects which their false liberalism is having upon the fortunes and reputation of their University as a Medical school for men. As we have on a previous occasion remarked, the University has made no real or implied compact with the women-students to admit them to graduation; and we hope that the Professors of the University will strenuously resist the inroad which a party of foolish Scotch Presbyterian clergymen, lawyers, and women are endeavouring to make upon the decency and standing of the Edinburgh Medical School. The friends of the women-students endeavoured to get an amendment substituted for the original motion, but they were out-voted. The amendment was to the effect—"That, without asking the University Court to rescind their resolution, the Senatus should authorise an intimation to be put into the *Calendar*, that it was for the present impossible for ladies to obtain a Medical education in the University, notwithstanding the resolution and regulations of the University Court." We notice from the report of their recent meeting that the Association for Securing a Complete Medical Education for Women in Edinburgh are crying out for more funds. Mr. McLaren, M.P., who seems to have been the chief speaker on the occasion, boasted that he and his wife had been the means of procuring one-fourth of the funds from England for the defence of Miss Jex Blake — an assertion which does not raise our idea of the intellectual *status* of the acquaintance of Mr. McLaren. For ourselves, we have only pity for a man who sees no reason why men and women should not sit together in Medical classes in a Medical school as they sit together in church. We can say this, however, to Mr. McLaren, that the sitting together to any good purpose in church would be fatal to any idea of their sitting together at anatomical and physiological demonstrations.

An attempt to simplify the present complicated and continually changing chemical nomenclature has been recently made by Mr. Metcalfe Johnson, of Lancaster. In the number of the *English Mechanic* for November 3 appears a letter from Mr. Johnson, announcing his proposal, which is simply this—"To use the Greek terminal *ov* for all substances, whether element or compound, and to indicate the number of atoms of each *element* by the Greek numerals, and of each *compound* by the Latin numerals, one to five." Thus, one terminal and five prefixes are made to identify each element or compound, and to indicate the exact chemical composition of the substance. Thus, water composed of OH_2 would be oxo-dihydron; nitrous oxide, N_2O, would be oxo-dinitron; nitric oxide, N_2O_2, binitroxon; and so on. Some of the words so produced are rather long, and not very euphonious—*e.g.*, bisulphate of soda, natro doxo-bi-sulfotroxon; but the plan has the advantage of being uniform, and it certainly would not be much more difficult for the student than the perplexing phraseology at present in vogue.

The Shoreditch parochial authorities have recently made themselves notorious by passing a resolution that a wooden shed, lately used as a small-pox ward, should be broken up and sold for £27 10s. The Local Government Board and the Metropolitan Asylums Board have had their attention called to the matter, and the Shoreditch authorities will probably be prevented realising the worth of the boards at the expense of the health of the metropolis.

THE MEDICAL SOCIETY.

At the Medical Society, last Monday, the proceedings were unusually interesting: the subjects were numerous and varied. After the minutes were read, the secretaries brought forward an amended report on Thermometers. The reporters advise that a standard thermometer, and also an approved clinical thermometer, should be kept at the Society's room. Next, Dr. Tilbury Fox made very brief but interesting remarks on an Extensive Outbreak of Ringworm. The novelty was his discovery of epithelial scales containing fungi in the air of the workrooms. They were deposited on glass slides exposed in the room. Then, Dr. Carpenter, of Croydon, read a very methodical paper on two cases of what he believed to be Muscular Anæsthesia. He exhibited his two patients, and to show the difference betwixt their gait and that of locomotor ataxy, he presented also a patient who was the subject of that disease. This paper excited great interest, and led to valuable remarks by Dr. Lockhart Clarke on the subject of muscular anæsthesia, and on the symptoms and pathology of locomotor ataxy. Dr. Lockhart Clarke, Dr. B. W. Richardson, and Dr. Hughlings-Jackson were requested to join Dr. Carpenter in investigating the cases, and to furnish a report on the condition of the muscles. A short paper on "Endocarditis complicating Phthisis" was then read by Dr. Sansom, who showed pathological specimens from the case. After this paper was discussed, Mr. Brudenell Carter also showed some pathological specimens—this phrase meaning, that he demonstrated certain abnormal conditions of the fundus oculi. With the reflecting ophthalmoscope the optic disc could be seen easily and very clearly by anyone who put his eye to a hole in one of the properly adjusted mirrors; no further "skill" being required of the observer. If the demonstration had had no other value than that it convinced any novice in ophthalmology of the value of the ophthalmoscope as a practical instrument of research, it did good service. Perhaps there is not to be found, nowadays, anyone so incredulous as to require to have actually demonstrated to him that the optic disc, with its arteries and veins, is really to be seen. But there are, we believe, some who have not a clear notion of the great definiteness of ophthalmoscopical appearance. We advise anyone in this state of mind to attend further demonstrations Mr. Carter is announced to give. But the cases—or, as we have said, pathological specimens—were in themselves of great practical value, and that not to the ophthalmologist only, but to Medical observers in general. One case was a specimen of embolism of the right arteria centralis retinæ. Besides the importance of the case from a directly utilitarian point of view, as showing one rare and yet definite way in which "amaurosis" is caused,

it was most instructive, for the earliest stage of the embolic process was there to be looked at. It was on this point that Mr. Carter laid most stress—not dwelling with exaggeration on the phenomena resulting from sudden blocking of one important artery, but speaking *from* this particular case with reference to the results of plugging of arteries in general. In this case, besides better known appearances, blood could be seen upon the optic disc itself. With all this abundance of material there was, thanks to the courteous management of the President, no confusion in the proceedings of the Society. The evening was both pleasant and profitable.

THE HUNTERIAN SOCIETY.

At a meeting of this Society, held on Wednesday, November 8, Mr. Bryant brought under the notice of the members some interesting cases bearing on the subject of Insuperable Constipation and its Treatment. The object of his remarks was to show that in a large number of cases of chronic constipation colotomy is a sure and proper mode of treatment, that its performance ought not to be too long delayed—so long, indeed, as often is the case—and that the objection to the operation, that it causes the after-life of the patient to be one of discomfort and annoyance, was not true, in fact. He alluded to two patients on whom he had performed colotomy for fistulous communication between rectum and bladder, who at this time were enjoying very comfortable existence, and who say they would not undergo an operation for closing the artificial opening even if they could with safety. As a curative mode of treatment in some cases of severe simple, or syphilitic ulceration, the operation ought to be performed early, for healing is either very prolonged or out of the question altogether until a chance is thus given for its repair. He also referred to the occasional occurrence, especially in persons advanced in life, of insuperable constipation from loss of power of the large intestine, and without any actual or positive cause of obstruction. Such cases sometimes prove fatal, and, when occurring, should be treated, not by severe and frequent purgatives, but by means of enemata.

The first case described as illustrating the relief afforded by colotomy was that of a lady who was supposed to have some tumour connected with the uterus or ovary, but who, when seen by Mr. Bryant, was suffering severely from the results of obstruction of the bowel—"of a chronic blockade of the intestine," as Mr. Bryant termed it. Colotomy was performed, and immediate and considerable relief was given; but death subsequently occurred from the rupture into the peritoneal cavity of a cyst, of creamy fluid contents, growing near the sacrum.

Another case bearing on the first was a female who had for seven weeks suffered from obstruction. She had been treated with opium, and with mild and powerful aperients, before colotomy was performed. This was done on the right side, and a quantity of fæces was evacuated, and on the sixth day after the operation the patient was well. In this instance the uterus was prolapsed, being pressed down by something which gave to the finger in the rectum, when passed above the uterus, the same sensation as a fibroid tumour of that organ gives to the finger in the vagina. A quantity of wax-like material was also felt in the rectum; on withdrawing some of it, it presented much the appearance of fine wax, and was, no doubt, Mr. Bryant thought, an accumulation of soap which had been thrown into the bowel with the previous frequent injections. This patient is still living, so that the nature of the growth causing the obstruction has not yet been ascertained.

Mr. Bryant also referred to another case of considerable interest in the person of a young woman who had had colotomy performed on the right side in 1867 for obstinate constipation and fæcal vomiting. The patient is now in Guy's Hospital, in order to have the artificial opening closed. This Mr. Bryant has partly succeeded in doing; but before completely doing so he is gradually accustoming the colon to take on its long-suspended functions by passing into it injections of warm water.

The paper altogether was one of considerable interest.

Dr. Pye-Smith gave an account of a case of Cystic Enlargement of the Pelvis of the Kidney, brought on, as he very plausibly assumed, by traumatic stricture of the ureter a few inches from the kidney. The cyst subsequently suppurated, and a fistulous communication between it and the bowel resulted. Dr. Pye-Smith raised the question as to the advisability of laying open such a cyst when suppurating, by a free incision into its posterior part through the abdominal wall—a view which was supported by one or two of the members who took part in the discussion.

THE MIDDLESEX HOSPITAL MEDICAL SOCIETY.

The first meeting of the season of this Society was held on November 2, in the Board-room of the Hospital, when Mr. Langmore, M.B., read a paper "On the Hygienic and Medical Management of Infants." At a special general meeting held on November 9, the President (Mr. Morris) in the chair, the mode of Instructing Deaf Mutes by Lip-movements was the subject brought before the Society. Dr. John Murray commenced by giving a brief outline of the history, results, and prospects of lip-reading. Mr. Van Praagh then described the means by which the education of the dumb by this method was effected, and afterwards held a conversation with Mr. Polano, the son of the Professor of Surgery at Leiden. Mr. Polano was born deaf, and has been educated by lip-movements; he is now able to converse in his own language with entire strangers, and can also read aloud in the English tongue, although he has not been sufficiently long in this country to understand the language. Mr. Dalby, Aural Surgeon to St. George's Hospital, afterwards made some remarks, in the course of which he said that, though he was not so sanguine of this method for teaching the deaf and dumb as were some of its friends—owing to the opposition it would receive from ignorance and prejudice—he, however, considered it the best. It was, too, a method by which not only those who were born deaf, and were in consequence dumb, could learn to read and articulate, but one by which children who have talked naturally, and have subsequently become quite deaf, can be prevented, if taught early, from becoming dumb; and, further, that children who have once spoken, and, as a result of extreme deafness, have become dumb, may be more easily taught than those children who have never heard.

DR. ROSE CORMACK'S SERVICES DURING THE TWO SIEGES OF PARIS RECOGNISED BY THE FRENCH GOVERNMENT.

So far as we know, it has not yet been stated in any of our Medical journals that, by decree of July 11, Dr. Rose Cormack, of Paris, received from the French Government the cross of Chevalier of the Legion of Honour. There was sent along with the decree and insignia of the Order a "protocole," dated "Ministere des Affaires Etrangères," and signed "Jules Favre," in which the following sentences occur:—"Je me félicite d'avoir été a même de faire connaître au Président du Conseil le savoir et le dénouement avec lesquels vous avez donné vos soins aux blessés Français recueillis dans l'Ambulance Anglaise de la Rue d'Aguesseau. Vous vous êtes montré un digne collaborateur de Sir Richard Wallace et le Gouvernement Français s'est plu à le reconnaître." In addition to this recognition, Dr. Cormack has received the war medal and the cross of the Société Française de Secours aux Blessés.

JOTTINGS ABOUT CHOLERA.

The disease continues undiminished in Constantinople. Thirty-three out of the 708 inhabitants of Haskeni, who compose the English colony, have died of the complaint. It continues to rage in various parts of Arabia.

UNAUTHORISED EXAMINATION OF DEAD BODIES.

Great dissatisfaction has been caused of late in several cases where post-mortem examinations have been made in the Hospitals of London without the sanction, and in one or more cases against the expressed wish, of the friends of the persons deceased. It is to be regretted that these misunderstandings should occur; more particularly as, in the vast majority of instances, the consent of friends could be obtained if proper means were resorted to for that purpose. The last case which has occurred, and which has caused considerable excitement at the East-end of London, was at the Children's Hospital at Ratcliff-cross. An inquest was held last week, before Mr. Richards, the Deputy Coroner, on the body of a child, 6 years of age. It appeared by the evidence that the child had been in the Hospital since August 16 last; that the parents were told a few days since by the House-Surgeon, Baron P. von. Sadilitz, that the child would not live, and they, fearing a post-mortem examination would be made, forbade it. Mr. R. N. Phillips, Police Surgeon, said that, by order of the Coroner, he made a re-examination of the body, which had previously been opened. The heart had been removed from the body, and was missing. The lungs were diseased and congested. He believed that the child had died from disease of the heart. The Coroner said that the Hospital Doctor had no right to cut open the body. It was a punishable crime. A juror said a magistrate should be at once applied to, and the whole case made public. Ultimately a verdict of "Death from disease of the heart" was recorded. It was stated that criminal proceedings would be taken in connexion with the case.

TRAFFICKING IN DEGREES.

It was generally supposed that the trafficking in degrees had ceased, now that the "Medical Register" is published annually, and the Council of Medical Registration refuse to place on the Register the names of those persons who have obtained licences, diplomas, or degrees in an irregular manner; but the traffic still proceeds. Whatever may be its results so far as other professions are concerned, we must conclude that with reference to Medicine it is an unprofitable pursuit. Anyway, the pursuit is followed, as witness the following advertisement which appeared a few days since in the *Times* newspaper:—

"Degrees.—Gentlemen of ability and position can obtain promotion to learned degrees in theology, law, arts, Medicine, music, and other recognised orders. Strict confidence assured. Address, M.A., etc.——."

The *Weekly Review*, in order to ascertain the real meaning of the above advertisement, sent a letter to the address, purporting to be written by a Presbyterian clergyman, and a reply has been received which brings clearly to light a system which is in the highest degree objectionable both as respects the givers and receivers. It is high time that so abominable a system should be put a stop to.

MEDICAL STUDIES AT CAMBRIDGE.

At a meeting of the Senate of the University of Cambridge, held on Saturday last, the Vice-Chancellor presiding, the proposed additional requirements prior to the third examination for the M.B. degree, referred to in our last issue, were considered. Dr. Paget and Professor Liveing were present. In answer to a question, Professor Liveing said that the requirements of the regulations could be met at the hands of the Professor of Experimental Physics. Dr. Paget urged, however, that the proposed regulations would have the effect of materially reducing the term of study at present required—viz., four years. Though he had signed the report as a whole, he would suggest that an alteration be made in the second clause of regulations. At the present time, four years' study was necessary to qualify a student for entering into the Medical Profession, and he thought that system should still obtain.

THE LORD CHIEF BARON ON THE PRESERVATION OF THE PUBLIC HEALTH.

It is seldom that the City authorities are reminded by those in position above them of the duties appertaining to their offices. The Lord Mayor, on presenting himself, on the 9th inst., before the Lord Chief Baron of the Court of Exchequer, was reminded of the imperative necessity, before another session of Parliament passed over, of promoting measures for the preservation of the health of the people. It was of the utmost importance, said his Lordship, that public bodies charged with municipal duties should be reminded of the responsibilities devolving upon them. It is to be hoped that the "gentle reminder" of the learned judge will not be lost sight of by those to whom it was addressed.

INCREASE OF SMALL-POX IN LONDON.

The lull in the epidemic of small-pox appears to have ceased. The report of the Committee of Hampstead Small-pox Hospital, on Saturday last, stated that during the past fortnight 126 fresh cases of small-pox had been admitted; 16 had died, and 61 were discharged, leaving 190 under treatment, as against 140 at the date of the last report. The total number treated up to the present time has been 5822, of whom 1019 died, and 4543 have been discharged. It will be seen that the number of fresh cases has been 80 per cent. higher during the past fortnight than in that preceding, and has exceeded the vacancies caused by discharges and deaths by 49. This has rendered necessary the immediate reappointment of a second Assistant Medical Officer. It is feared, from present appearances, that the whole of the accommodation that can be afforded will be required during the forthcoming winter.

FOOT AND MOUTH DISEASE IN CHILDREN.

Some weeks since we stated, on the authority of the Chairman of the Hertford Chamber of Agriculture, that children fed on the milk from diseased cows had suffered from a complaint similar to the "mouth disease." Since then Dr. Alfred Packman, of Puckeridge, has treated several cases of this complaint, and states in a certificate that the patient "suffered from a peculiar eruption of the mouth, nose, and face, accompanied by sore tongue and throat, and salivation. I have no sort of doubt that the affection was caused by drinking milk from cows suffering from foot and mouth disease."

REVACCINATION IN THE ARMY.

It is probable that revaccination may be made compulsory throughout the English army and the families of married soldiers. It is well known that the influence of revaccination in the Prussian army has been most beneficial. An order has just been issued by the Medical Department of the Army, directing that the whole of the married women and their children above 10 years of age, belonging to the depôts attached to the general depôt battalion at Chatham, are to be vaccinated.

JURYMEN AND CONTAGIOUS DISEASES.

A short time since Dr. Lankester, at an inquest held by him on a person who had died from a contagious disease, suggested that in all such cases a pane of glass should be placed on the lid of the coffin of any person on whom an inquest was to be held, so that the body might be "viewed" without danger. The jury, in the case of an inquest on a person who died of small-pox in Bloomsbury, where the plan was carried out, expressed their gratitude to Dr. Lankester for the suggestion.

DISTRICT MEDICAL OFFICERS.

The following notice of motion has been given by Mr. C. N. Cook, one of the Guardians of the Poor of Lambeth, to be discussed at the next meeting of the Board:—

"That the existing system under which the District Medical Officers are appointed, and required to give both Professional

attendance and medicines out of their allowance, is wrong in principle and objectionable in practice; and that it will be advantageous to the ratepayer, satisfactory to the Medical officer, and beneficial to the class of people seeking relief if the system be placed on a totally different footing.

CHOLERA ON SHIPBOARD.

Advices from New York state that forty-one deaths from cholera occurred on board the steamer *Franklin* on her voyage from Stettin to New York.

FROM ABROAD.—M. LE FORT ON FRENCH MEDICAL MILITARY SERVICE—EDUCATION OF PARIS MEDICAL STUDENTS.

In the *Revue des Deux Mondes* for November 1 is an important paper from the pen of M. Léon Le Fort, on "Military Surgery in Modern Armies." Few are more competent to speak on the subject, for he has seen service in more than one important campaign, and has made it, as well as the cognate subject of Hospital arrangement, the matter of study in most European countries. In the recent war, too, he was engaged in active ambulance service, and, indeed, it is the teaching derived from this that constitutes the most pressing interest of the present paper. This teaching, however, is only a reiteration of impressive warnings as to the faulty condition of the French Medical Military Service, which have been repeatedly addressed in vain by himself, Dr. Chenu, and others, to a heedless Administration; and we fear that there is now as little likelihood as ever of the radical changes which he considers as essential being adopted. It is but another chapter of the now often told story of the defective condition of French organisation, and of the vast scale on which reforms, to be of utility, will have to be conducted. M. Le Fort writes with a singular absence of prejudice and animosity, considering the scenes he has of late been witness to, and describes at length, for the benefit of his countrymen, the system of organisation which prevails in the Medical service of the Austrian and German armies. The necessity of closely imitating this he strongly urges; but here we think he, in common with his countrymen in their search for remedies at the present crisis, is somewhat too indiscriminate in his recommendations, as if mere imitation of Prussian procedures would necessarily be followed by satisfactory results. Indeed, as far as military Medicine is concerned, much that prevails in Prussia is of comparatively recent adoption, and admits of considerable amendment; for the arrangements for the treatment of the sick and wounded (with the exception of those for their prompt removal from the battle-field, and for their rapid—sometimes too rapid—transport to distant Hospitals) were very meagre, and far too much dependent on the volunteer aid of a large force of civil Practitioners, many of whom were quite inexperienced in the duties they had undertaken to perform.

M. Le Fort forcibly demonstrates, as he and others have so often done, that the Intendance is the incubus and and curse of the French Medical Service, and that any essential improvement is impossible until it is liberated from the trammels of that department. From highest to lowest, the French Medical officer is entirely deprived of all power of action or initiative, and scarcely can be said to have a consultative voice, being, in the words of Chenu, a "mere instrument for amputating, bleeding, and purging." The position and disposition of Hospitals, and the number of their inmates, or the period of the stay or discharge of these, are matters placed beyond his control; while the Intendance is so overwhelmed by the amount and diversity of its duties as to be utterly unable to fulfil them, even if possessed of the necessary knowledge, of which, as regards Medical matters, it is entirely destitute. The *personnel* of the French Medical Service ought, at the beginning of 1870, to have consisted of 1147 individuals, but even this inadequate force did not exist, the number really mustered being only 1020, leaving a deficiency of 11 per cent., the *pharmaciens* also being in a deficiency of 15 per cent. This state of things had arisen from the increasing number of resignations and the difficulty of recruiting new candidates. In the face of the increasing attractions of private practice, the degraded position of the military Medical service in relation to the Intendance and to the other branches of the service, together with the poorness of the pay, men cannot be tempted into it in sufficient numbers, and those who have entered are incessantly leaving it. With the proposed increase of the army—bringing it up, inclusive of reserves, to a million men—this condition of things will be much aggravated; and M. Le Fort considers, at some length, the various means that can be had recourse to, even after the indispensable emancipation from subserviency to the Intendance. That his recommendations do not carry the matter very far may be seen from the fact that one mode which he suggests for supplying the deficiency which will still exist even after their adoption is, that a stipulation should be made in future diplomas, in consideration of the exclusive right to practise which these confer, that their holders should be liable, until the age of 40, to military Medical service on all occasions when the defensive reserve may be called out.

M. Le Fort, who saw during the late war much of its operations, emphatically condemns the Geneva Convention—at all events, in its present undefined condition. His statements are most temperate upon the subject, and plainly show that many of the alleged German violations of its provisions arose from the ignorance which prevailed among the French concerning the nature of these. So little pains had been taken to make them known in the army, that when the war broke out the Intendance was entirely ignorant of their character. In the hands of volunteers the badge was most grossly abused. Volunteer societies, he observes, under strict submission to military order, and with limited objects in view, did admirable service for the German armies; while when these were left, as on the French side, to spontaneous action, their operations were often of very questionable utility, when not positively mischievous. With few exceptions, the *infirmiers volontaires* were drunkards or idlers, and were in many instances more occupied in pillaging the dead than tending the living; while the conversion of private houses into ambulances, under the protection of the Geneva Flag, where it was not, as it often was, a sham to escape quarterings, became not infrequently, through mistaken benevolence, a source of mischief, many of the wounded dying in these who might have been saved had the Surgeons been aware of their existence.

"The war of 1870 has superabundantly shown that the International Society did mischief by diverting from military service, in order to employ them itself, those civil Surgeons, who would have willingly entered the ranks of the army temporarily in order to devote themselves to the care of the wounded—thus in part rendering sterile individual efforts, which, under the immediate direction of military Surgeons might have proved far more useful. Maintaining for individuals all the respect which pure intentions deserve, can we say that the intoxication of devotion which covered France with little private ambulances, and converted so many persons, not only into Hospital sisters and nurses (which, perhaps, was a benefit, in spite of their inexperience), but even improvised them into Doctors (which was certainly an evil), has not contributed to increase the mortality, destroy what remains there were of discipline, and keep from the ranks soldiers well fitted for service? However this may be, we may say with M. Lucas-Championnière, Surgeon to the 5th Ambulance—'We might point out improvements that every kind of voluntary ambulance is susceptible of, but we shall furnish no details on the subject, because we believe that civil ambulances have played out their part, and that that part is terminated.'"

Some time since Mr. Simon, when President of the Medical Teachers' Association, somewhat startled the non-imaginative and less advanced portion of the Medical world by his suggestion that Medical curricula should be abandoned, and that the assurance that candidates possessed the amount of Medical and

scientific knowledge requisite for their being trusted with their future important duties should be ascertained by more efficient examination. Those who were aware of how much the bulk of Medical students stand in need of all the aid that can be given them in directing the proper course of their studies, and what waste of time and neglect of objects of importance would ensue, and who were somewhat sceptical as to the possibility of constituting an Examining Board of the assumed perfection, naturally regarded such a proposal as rather visionary; and, in fact, so little was it likely to be assented to by those who would be responsible for its results, that it excited but little discussion. It may not, however, be amiss to refer to what others think of such a line of procedure where it has been to some extent adopted:—

In commenting upon the reopening of the Medical Faculty of Paris, the *Union Médicale* of last Saturday forcibly deplores the procedure which allows the French students to pick up their knowledge when, how, and where they can, and actually proposes a course of lectures in order to teach them what might be so easily and advantageously authoritatively laid down for them.

"Truly it was pleasant to see and feel this animation where last year all was so silent and so sad. Last Monday the Quartier de l'Ecole de Médecine resumed all the appearances of old times. Judging from the great amphitheatre, which overflowed at the Introductory Lecture on General Pathology, by M. Chauffard, the number of students must be considerable. Whether the new ones are more numerous than in former years can only be known when the register is closed. Nothing, in the meantime, indicates that our Faculty has in any way modified its habits or its programme of instruction. Everything seems as if it is to go on as heretofore—that is, the theatre is opened and lectures are to be delivered, the students frequenting those of them they please, providing they present themselves for examination. Of method, direction, advice, not a shadow is to be seen. If liberty of teaching does not exist absolutely for those who teach, the liberty of study is certainly complete enough for those who are taught. They do just as they please—attend what courses they like, without rendering account to anyone (except at the examinations) of the employment of their time or the direction of their studies. That is how it is; and for many years past has this cruel and dangerous abandonment of the student on entering our Faculties been pointed out. Nothing has been done—nothing has been changed. Amidst all the *desiderata* which the teaching of the Faculty stands in need of, one is almost afraid of being accused of rashness in pointing out two others, which, however, are not of minor importance. We could wish, then, that two new courses of lectures were established, the one for students commencing, which might be termed 'Methodology of Medical Studies,' and the other for those finishing, and designated as 'Medical Deontology.' For the student who is beginning his career, would it not be serviceable to indicate the order and method, if he would not go astray and lose precious time, in which he ought to commence and pursue his studies; teach him how to avoid false routes; preserve him from a perplexity of choice, and exhibit to him that bond which unites all portions of science, so as to preserve his mind from confusion by enabling him to perceive the concordance and harmony of biological science? And for the student who has completed his studies, should we not be performing an excellent office in instructing him in the duties and the rights of the Physician towards himself, towards his *confrères*, towards society, and towards Government, cautioning him against the dangers, embarrassments, perfidies, and the thousand little hurtful incidents which await the young Practitioner upon his entrance on his career?"

APOTHECARIES' HALL, DUBLIN.—The Governor and Council have announced as the subject for the prize examination next year the "British Pharmacopœia." This was also the subject of examination last May. The prize, which is five guineas, will be competed for by apprentices on the first Monday and Tuesday in May, 1872.

A RETIRING PENSION of £550 per annum has been granted to Surgeon-Major J. P. Brougham, of the Indian Medical Service.

MISS NIGHTINGALE ON "LYING-IN INSTITUTIONS."

MISS NIGHTINGALE has just published a small volume of "Introductory Notes on Lying-in Institutions," together with a proposal for organising an institution for training midwives and midwifery nurses. The name of the author, and her long and well-known connexion with sanitary questions, will no doubt attract a large share of public attention to the work. At the outset of her inquiry as to what is the real normal death-rate of lying-in women, Miss Nightingale admits that midwifery statistics are in an unsatisfactory condition. She refers to Dr. Matthews Duncan's suggestions for the improvement of the records of obstetric practice, but without attempting to explain the enormous variance between the conclusions of that gentleman and of Dr. Evory Kennedy on the influence of aggregation on the mortality of lying-in women—the latter, from the statistics of the Rotunda Lying-in Hospital in Dublin, having, as our readers must be aware, formed the opinion that aggregation immensely increases the mortality; and the former, from the same records, treated in a different way, having drawn exactly the opposite inference—that the mortality in the Rotunda Hospital was lowest during the periods in which the greatest number of women were delivered. She virtually adopts the opinions of Dr. Evory Kennedy. She, however, neither mentions his name nor alludes in any way to the remarkable paper "On Zymotic Diseases, as more especially illustrated by Puerperal Fever," read by him before the Dublin Obstetrical Society in 1869, or to the subsequent discussion. She is, nevertheless, strongly in favour of small "lying-in institutions," as distinguished from large special "lying-in Hospitals." She objects to the name and idea of "Hospital"—so long as that means a place for the reception of diseases and accidents, from which a certain death-rate is inseparable—being applied to a building intended for the reception of lying-in women. "Lying-in," she asserts, is neither a disease nor an accident at all; and she maintains that, from causes unconnected with the puerperal state, no woman ought to die in her lying-in, that there ought in a "lying-in institution" to be no death-rate at all, and that a death in childbed is almost a subject for an inquest. She further assures her readers in another place that parturition is neither infectious nor contagious; for which we most sincerely say, "*Deo reddantur gratiæ!*"

With regard to special lying-in Hospitals, she asks—Does not the whole evidence point to the one conclusion, that, unless it can be clearly shown that the enormous death-rates which prevail in them can be abated, or are altogether inevitable, such establishments should be closed? She sums up the results of her inquiries into obstetric statistics with the remark that a woman in ordinary health, subject to the ordinary social conditions of her station, will not, if delivered at home, be exposed to any special disadvantages likely to diminish her chances of recovery; but, if she be received into an ordinary lying-in ward, together with others in the puerperal state, she will from that very fact become subject to risks not necessarily incident to that state. Without vouching for the entire accuracy of Le Fort's data, she still considers them to show approximately the penalty which is being paid for the supposed advantages of these institutions—viz., that for every two women who would die if delivered at home, fifteen must die if delivered in lying-in Hospitals—a statement which differs but slightly from that made by Dr. Evory Kennedy, that, in all the deaths that have occurred in the Rotunda Lying-in Hospital, Dublin, for the last seven years, in parturition, out of every nine deaths seven and a half women have died who would in all human probability be at this moment alive had they been confined in their own homes or in isolated cottage Hospitals. The usefulness of lying-in Hospitals as training-schools for midwives and students can also hardly be maintained, when, as Miss Nightingale observes, we thereby "ensure killing a certain number of mothers for the sake of training a certain number of midwives." If we are to have a training-school at all, she maintains we must, above all things, make it as safe to enter it as to be delivered at home; and, having made up our minds as to what is necessary for this purpose, we must pay for it.

The results of the experiment tried in King's College Hospital, of having a lying-in institution and training-school for midwives, in connexion with that establishment, from 1862 till

1867, were so unfortunate, that the wards were closed, and the experiment abandoned. Miss Nightingale illustrates by a plan the structural defects of the part of the building told off for the purpose, and details various objections on hygienic principles to the site, and to the admission of students from the general to the lying-in wards. She also describes the Maternité, and the Hôpital de la Clinique, Paris, and Queen Charlotte's Lying-in Hospital, London, showing the defects in each, and giving plans of the two last named. She also details the very favourable results attained in the lying-in wards of the Liverpool Workhouse, and in the Waterford Lying-in Hospital.

The experience of the Liverpool Workhouse lying-in wards is very remarkable, as having, although working under many singular disadvantages, escaped the usual fatality of special lying-in Hospitals. During thirteen years, in 6396 deliveries there were 58 deaths, giving a total death-rate of 9·06 per 1000. The deaths from puerperal diseases were 22, equal to 3·4 per 1000; from accidents of child-birth, 14, or 2·2 per 1000; the aggregate death-rate from puerperal diseases being 5·6 per 1000. These deaths are said to include all among puerperal women delivered in these wards, whether occurring within or without the maternity division. To this Mr. Barnes, the Medical officer of the establishment, can answer with certainty for the last five years; also that, as no puerperal woman is discharged from the workhouse unless in perfect health, no puerperal death can have happened after discharge. In 1868, 1869, and 1870 there were 1416 deliveries, including twenty premature. Six mothers died from all causes, of which three at least were non-puerperal. The total death-rate was only 4·2 per 1000.

In the delivery ward are seven beds, with nearly 1200 cubic feet per bed; the number of beds occupied at a time rarely exceeds four or five. The lying-in ward contains 14 beds, at 900 cubic feet per bed, and of these all or most are generally occupied. In the convalescent ward there are 11 beds, at 762 cubic feet to each; these also are generally all full. In the wards for pregnant women are 24 double beds, generally full, accommodating 48 women, at 345 cubic feet per inmate; but as these women are engaged during the day in various occupations within the workhouse, they only inhabit the wards at night. The wards are so divided off by partitions that each has windows on only one side, but the wing of the Hospital in which they are situated has windows at both sides, and at one end. The water-closets are between the wards, in a very objectionable position. The floors are washed daily. The bedclothes are changed after each delivery, and the beds, which are of straw, after every third delivery. The patients are for the most part unmarried women: during the three years from 1868 till 1870, out of 1401 deliveries, 936, or two-thirds, were those of unmarried women, among whom only 6 deaths, or 4·2 per 1000, occurred.

Until recently, the whole of the deliveries, averaging 500 a year, were under the charge of one paid officer and a pauper, who, without any payment or extra diet, delivered nearly every case, and worked both night and day. The high and well-ventilated site, the absence of connexion with a general Hospital or Medical school, the constant change of wards, frequent cleansing and limewashing, short detention of women in the lying-in division, the deliveries being attended by a woman specially attached to the delivery ward, no part of whose duty it is to attend sick, the immediate isolation or removal of cases exhibiting feverish symptoms, and the reduction of intercommunication between the lying-in and Hospital divisions to the smallest possible degree on the part of Medical officers and nurses—are the points of management to which, in spite of defects, Miss Nightingale attributes the favourable results. But in these respects the Liverpool Workhouse lying-in wards are surely not so singular as to account for the marvellously low death-bed mortality observed during the three years from 1868 till 1870—not higher than in the healthy districts of England.

As instances of the results of improved lying-in ward construction, Miss Nightingale refers to military female Hospitals, in which the death-rates have been comparatively low. Excluding Aldershot Hospital, as being unfit for childbirth cases, the total mortality in the other seven Hospitals referred to, for periods varying from two to twelve years, was 7·4 per 1000. The mortality from puerperal diseases was 2·7, from accidents of childbirth 2·7, and from the two combined 5·4 per 1000. At Shorncliffe and Colchester, two camp Hospitals for lying-in cases, consisting only of wooden huts, have yielded very important experience. At the former, up to December, 1869, in 702 deliveries, there occurred one death from scarlet fever, one from hæmorrhage, and two following craniotomy. There was no death from puerperal disease. At the latter, which has been in use for a considerable number of years, there have been altogether 500 or 600 deliveries. The matron states that during the whole time no death has occurred in it. But statistics have only been kept from 1865 till 1870, during which period, in 252 registered deliveries, there were no deaths. There have thus been 954 registered deliveries in the two huts, and four deaths, of which three were due to puerperal accidents, and none to puerperal diseases. They are both detached buildings, or rather huts, having no connexion with any general Hospital. They contain very few beds; that at Colchester only four, each in a small separate room. The beds are seldom or never occupied all at one time—and, indeed, at Colchester there is seldom more than one, or, at most, two beds constantly occupied throughout the year—and the woman rarely remains more than ten or twelve days in Hospital.

Taking these hut Hospitals as the pattern, Miss Nightingale gives a full description of her ideal of what the "lying-in institutions" of the future should be. She gives a series of illustrative plans, designed by Lieutenant Ommaney, of the Royal Engineers, of the "ward-unit" in such institutions. The maximum number of beds should be four; in one plan the beds are all in the same room, but in the other in separate compartments, as at Colchester; and this, she states, is to be the plan on which in future all military female Hospitals are to be constructed. She fixes the minimum of ward cubic space for a lying-in woman, even when the delivery-ward is, as it ought always to be, separate, at 2300 cubic feet in a single-bed ward, and 1900 cubic feet in a four-bed ward. Each "ward-unit" has its own offices perfectly distinct: these offices include scullery, with a fireplace, dresser, linen-press, and sink; another small room containing stove, bath, slop-sink, and water-closet. A corridor nine feet wide, and thoroughly ventilated, separates the ward from the offices. The wards have opposite windows, fireplace, foul air outlets, and fresh air inlets, and, besides the beds, should contain as little furniture as possible. A further design is given by Lieutenant Ommaney for the combination of a number of such wards into a building designed as a training institution for midwives, comprising also quarters for the matron and other officers, as also for the pupil midwives. The design appears to us admirably suited for the purpose; it obviates completely the possibility of overcrowding, and provides, as far as can be done, for a completely separate atmosphere for each pavilion. There are four delivery-pavilions—two in each wing, on two floors—each containing three beds; one pavilion only is to be used at a time. There are three wards in each wing on the ground-floor, and two in each wing on the second-floor, each containing four beds. There will be six delivery beds and four or eight lying-in beds always unoccupied, and there will remain accommodation for six simultaneous deliveries, and for thirty-two or thirty-six lying-in women. There will be a special detached ward for febrile cases, behind the building.

The plan is admirable; but the difficulty as to the nursing and administrative staff at once arises. As Miss Nightingale observes, no charity or institution could bear the expense of a single-bed ward or even a four-bed ward lying-in establishment for a pretty constant succession of thirty-two patients unless there were a training-school. Even with a training-school the first year would be one of great difficulty, as the first batch must necessarily be all fresh hands. Miss Nightingale only attempts a guess at the amount of nursing accommodation for so completely new an experiment as a lying-in institution of forty beds in single-bed or four-bed pavilions. One matron, one head midwife, one assistant-midwife, one deputy assistant-midwife, and thirty pupil midwives, a cook, a housemaid, and one or two other female servants would, she says, be necessary. Two experienced nurses might be required in addition during the first year. The expense of all this would be very great; but, as Miss Nightingale's design is to train ladies as scientific Physician-Accoucheuses—not, she observes, as Medical *men*—the fees from pupils of that class should be considerable. The experiment of such an institution certainly deserves trial. She addresses, in the appendix, those ladies who desire the education of Medical *men* as her "dear sisters," or, with characteristic irony, "*chers et très-honorés confrères.*" We will not enter into any argument with her on the question of Midwifery as a career for educated women. Her statement that *all* women would prefer the attendance of educated Physician-Accoucheuses to that of male obstetric attendants appears to us rather too general. But if ladies devote themselves to the necessary preliminary studies—including, as Miss Nightingale tells them, dissections and

post-mortem examinations—and acquire in such an establishment as Miss Nightingale has described a thorough knowledge of the obstetric art, and if they prove themselves physically fit, we see no reason why they should not practise it among those who prefer them to male attendants. The course of education, Miss Nightingale says, must certainly be not less than two years. All the Professors must at first be men, but probably in time all or nearly all would be women.

Whatever Miss Nightingale undertakes she works at with a zeal and devotion which long-continued bad health has not impaired. Whatever she says attracts and deserves public attention; and she says it in a manner peculiarly her own, with a dash of harmless exaggeration, just enough to give piquancy to her observations. We have no doubt that the present work will have numerous readers, both in and out of the Profession.

To all who are interested in the welfare of our poorer classes, and particularly to those engaged in the construction of cottage Hospitals, the work now before us will supply most valuable information and many most suggestive hints.

The book is dedicated, "without permission," to the shade of Socrates' mother, who in life had been herself a midwife, and the questioning shade of the philosopher himself is invoked for assistance. We hope that the spiritualists may not, on the strength of this classical allusion, claim Miss Nightingale as a medium.

REVIEWS.

Lehrbuch der Ohrenheilkunde, mit besondere rücksicht auf Anatomie und Physiologie. Von Dr. JOSEF GRUBER. Wiener: Carl Gerold's Sohn. 1870.

Manual of the Treatment of Ear Diseases, with special reference to Anatomy and Physiology. By Dr. JOSEPH GRUBER. Vienna. 1870.

ALTHOUGH Great Britain may justly claim to have taken the lead in establishing Aural Surgery (and many other branches of Medicine) on a truly scientific and practical basis, yet in recent years no work of real importance, or anything like the one under review, has appeared (Toynbee's work must of course be excepted).

Wilde and Toynbee are names of which we may justly feel proud, and it may safely be said that England is not, even now, without aurists of deservedly good reputation; nevertheless, as a nation, we are very much behind the Germans in our scientific knowledge of the healthy and diseased states of the ear, and, consequently, in our practice. The chief reason for this is probably the ignorant and misguided belief which prevails with many, that little or nothing can be done for ear diseases, that they do not admit of scientific study, or that they are very difficult to diagnose. There is, no doubt, some truth in the first and last statements, but the second is utterly untenable, and no one in the least conversant with the laws of acoustics and their practical application to the ear would uphold such a view. And here is one great blank in all English works on the subject—viz., that they take no heed of physiological acoustics. The ear can no more be thoroughly understood without a previous good elementary knowledge of acoustics than can the eye be profitably studied without a moderate foundation of optical knowledge. If the acquisition of a modicum of acoustic principles were to precede the practical study of the ear, many of the alleged difficulties would vanish, and there would be good hope that not only the comprehension of Aural Surgery, but also its advancement, would be promoted. As in the eye, so in the ear, scientific principles applied to its diagnosis and treatment cannot fail to yield good results.

Another reason for the neglect of Aural Surgery in England is, that, until recently, no special provision for the treatment of ear cases, and the instruction of students and Practitioners in this branch of study, has been made. It really is astonishing that the Medical staffs of the various metropolitan and provincial Hospitals, who must, or should be, cognisant of the general bearings of Aural Surgery, have not earlier seen the necessity of appointing either a member of their own body or a specialist to the charge of this department. We have long thought, and still continue to think, that for many reasons it is, perhaps, better to appoint a general Physician or Surgeon to superintend a special department, as it is more probable that one who is in the habit of looking at the system generally runs less risk of becoming "groovy" or merging into the mere specialist. However, let this be as it may, the necessity of supplying this want in Medical education is still urgent, and must be met. The demand exists, and the supply must be forthcoming; and we hope that, by this means, before many years, quacks will be driven from the field. But now to Gruber. The first 151 pages are occupied with an account of the anatomy and physiology of the organ; they contain the substance of recent researches on the subjects, and a few original observations, and are altogether excellent. On pages 150-1 are some brief but interesting remarks on Helmholtz's theory of sound-sensation and perception, and of the irritation-action of the auditory nerve.

The "general part" of the work deals, in its first chapter, with the Examination of Patients, and the description of the mode of using the various aural instruments for diagnostic purposes. In the second chapter he treats of the General Pathology of Ear Diseases, and in the third of their General Therapeutics. We will consider them briefly in their order, touching only on noteworthy points. At pages 186-7, etc., he describes the mode of examining the posterior nares and fauces with the rhinoscope, and also with Türck's tongue spatula. It would be well if English Surgeons practised themselves more in the use of these aids to diagnosis. There can be no doubt of their value in skilled hands, and the detractors of this mode of examination must be classed among those who cannot or will not employ it.

When describing Politzer's method, he enters into a controversy respecting the priority of discovery and application of it, and claims to have originated and used it before Politzer. Much credit is, no doubt, due to Gruber, as having been among the first to use this method, and possibly to discover it; but to Politzer, nevertheless, is due—in our opinion—the praise of having reduced scientific principles to intelligent practice. We quite agree with our author in the opinion that this proceeding is inapplicable to the production of diagnostic auscultatory sounds, and are, further, of opinion that it frequently complicates instead of clearing up matters.

When treating of the introduction of liquids through the Eustachian tube, he makes no mention of his own paper in the *Wochenschrift der K.K. Gesellschaft der Aerzte*, No 9, 1862, p. 72, by which it would appear that he was one of the earliest to employ this manner of treatment, especially with reference to the prevention of the collection of free secretions in the tympanum.

We ought to have noticed before, that when discussing (at page 231, etc.) the use of the tuning-fork, he puts more faith in the diagnostic value of the instrument than Aural Surgeons of experience are inclined to accord to it. We regret to find that no sufficient notice is taken of the writings of Lucae and Politzer on physiological sound-conduction and propagation.

The author strongly recommends (at page 261, etc.) the use of his method of syringing through the Eustachian tube without the aid of the catheter, especially in cases of naso-pharyngeal catarrh. It is, doubtless, a useful and safe method, and should be generally adopted in such cases. We find no mention of T. Weber's nasal douche, which is a useful instrument, though not without its dangers. See *Archives für Ophthalmologie und Otologie*," Band 1.

In the special part the author describes the Malformations, Symptoms, Prognosis, and Treatment of the various affections of the three divisions of the ear. We will just draw the reader's attention to the description of fibrous tumour of the lobule after puncturing it, and the accounts, with references to the original papers, of such growths in negroes; also to the notices of the ear fungus of Wreden, the *Aspirgillus glaucus*. Schwartze pointed out that the relapses so common in some inflammations of the external auditory meatus are due to the presence of this fungus. We look on aspirgillus as much more frequently the result of the external inflammation and suppuration than as its cause, and we presume this is the view of Schwartze. In the severer forms of otitis and periostitis, the author mentions the possibility of the inflammation extending to the membranes—a matter worthy of the serious attention of general Practitioners. The treatment recommended is incisions down to the bone. The sections treating of Myringitis and the Lesions of the Tympanum due to Injury are excellent, and well worthy of careful reading. In the portions treating of Otitis Media, the author rejects the classification of Von Tröltsch, and adopts his own—viz., otitis catarrhalis, purulenta and hypertrophica. He gives a *résumé* of what has already been done, without, however, sufficiently separating those evidences which belong to the acute inflammations from those which appertain to the chronic. He points out that the purulent form may end fatally, and recommends paracentesis of the membrana tympani, without giving any particular time at which to perform it. We should have liked more definite information on this

point, as Aural Surgeons are, in our opinion, inclined to delay this operation longer than the severity of the disease justifies; and considering that the proceeding, though rather painful, is not difficult, and very rarely serious, we think that the operation should be performed, and that the approximative time for interference is between thirty and fifty hours from the onset of active symptoms. The difficulty is to keep the opening patent, but this might be effected by a piece of *perforated* laminaria. The author recommends astringent injections; but, knowing the frequent obstinacy of the disease in its later stages, we should in these cases resort to the caustic treatment of Schwartze where circumstances did not contraindicate it. The hypertrophic form, in the author's opinion, frequently ends in complete deafness. His treatment of this and the other forms of median otitis does not come up to what we expected of him; and considering that these affections are among the commonest of those to which the ear is liable, we anticipated a much more full, explicit, and satisfactory section on this subject. The sections on Etiology, Nosology, and Symptomatology are almost all that can be desired; but we must be pardoned for saying that in our comparative inexperience we looked to so deservedly high an authority for more complete information on a matter of such practical moment, and were disappointed. Both the general Surgeon and aurist will do well to peruse the sections on Caries and Necrosis of the Temporal Bone, and on Perforation and Trepanning of the Mastoid Process. They contain valuable practical information.

In the chapter on the General Pathology of Ear Diseases the author dwells on the necessity of Aural Surgeons being men of good general Medical education, and in this we fully agree. This observation should apply to all specialists; but we would go further, and lay stress on the absolute need for gentlemen devoting themselves to special studies to keep themselves *au courant* with the advances in *general Medical knowledge*. General Surgeons and Physicians should also be well informed in the practice and lore of special departments. In this way they would be enabled more readily to perceive the mutual actions and relations of the general and constitutional on the local, and *vice versâ*; and they would be able, each in his own department, to further the great body of Professional knowledge. Specialists have done much for their specialities, and general Surgeons and Physicians would do well to obtain a moderate knowledge of them if they wish to prosecute their Profession in its entirety and to their own satisfaction and advancement.

As an illustration of the neglect (as we suppose) of being conversant with recent literature on other subjects, we need only draw attention to the statement of the author, in the fourteenth chapter, that statistics of the operation of iridectomy in glaucoma show that in the majority of cases it proved unsuccessful! Surely this is against all experience, and such an assertion could hardly have been made by anyone who had studied ophthalmology and was familiar with its recent developments.

The sections on "Myringotomy and Myringectomy" are valuable, and in them the author describes and illustrates by engravings instruments which he has devised for these purposes, and explains his method of operating—they will well repay perusal. But in this connexion, and with reference to the treatment of growths in other parts of the ear, we should have been pleased to see recorded the experience of the author on the value of the galvanic cautery. He gives indications for the operations above mentioned, and speaks well of his results in cases of obstructed Eustachian tube and tinnitus.

The fifteenth chapter, treating of New Growths in the Middle Ear, is most excellent, and far superior to anything of the kind in other works with which we are acquainted. In polypi the author advises early removal, which no doubt is essential to prevent accumulation of pus behind the growth, and its consequences. Chapter 16 deals with Affections of the Internal Ear, and is on the whole instructive; but it may be questioned if the author be correct in considering the pigment found in the cochlea as always a pathological product. Lucae and Kölliker have observed it both in normal and diseased ears of adults. The author further thinks that inflammations of the middle ear are usually complicated with hyperæmia of the labyrinth. We cannot speak at all positively on this point, and should like more evidence before giving an unqualified adhesion to this view. We look in vain for any account of the relation between nervous diseases and ear affections, and think that Vienna could supply numerous opportunities for observation in this matter. The engravings and chromo-lithographs are good, but there is no index, an omission which we hope to see rectified in another edition. We must now take leave of Gruber; and when we say that the work is not quite a complete or exhaustive one, and that its style is sometimes obscure, we do not for a moment mean that otherwise it is not most excellent. Gruber has done good and lasting service to Aural Surgery by this publication, and we heartily recommend all interested in the subject to procure and study the work.

Germany and Austria can boast of Politzer, Tröltsch, Schwartze, Lucae, Moos, Helmholtz, Rüdinger, Voltolini, and others; France, of Bonnafont, Itard, Triquet, Menière; and England of Tyndall, Toynbee, Wilde, and Hinton; but we have yet much to do before Aural Surgery in Great Britain can vie with that of its Continental *confrères*. We want *scientific* as well as practical workers, and require that to this end the subject should be well taught in the schools.

Text-book of Skin Diseases. By Dr. Isidor Neumann, Lecturer on Dermatology in the Imperial University of Vienna. Translated from the Second German Edition, by special permission of the author, by Alfred Pullar, M.D. Edin., Physician to the East London Hospital for Children. London: Hardwicke. Pp. 329.

Of late years it may have been fairly said that the French and English schools of dermatology, eminent though they be, have been fairly eclipsed by that of Vienna; for, just as Von Graefe made Berlin the first school of ophthalmology in the world, so Hebra has acquired for Vienna a similar reputation as regards skin diseases. And the onward impulse has not stopped with him alone, for in this book of Neumann's, though we can see traces of the influence of Hebra's master-mind, nevertheless we can also see the results of abundant work on the part of the author.

The English system of grouping skin diseases has long seemed to us most trivial; accustomed as we have been to have paltry distinctions drawn between blebs of different sizes and swellings in different situations, the whole overlaid with a heathenish jargon of bad Greek terms, it was not to be wondered at that the study of skin diseases speedily palled on the mental appetite, insomuch that it was a positive relief to escape to the somewhat illusory and vapourish doctrines of the French as to dartrous and other diatheses. For these reasons we gladly welcome an admirable translation of a book which tends to place skin diseases on a level with others which have been the subject of rational study. The basis of modern Medicine is pathology, using the word in its widest sense; and of the two great methods of investigation which have been instrumental in its advance, the histological has far outstripped the chemical. It is, therefore, satisfactory to have before us a pathology of skin diseases elucidated in similar fashion; and in this it seems to us that Neumann has been eminently successful. The book is not a very large one, yet in it we have a careful account of all the normal and abnormal conditions of the skin, with some very excellent illustrations of the same. These are mostly new to us, and, as Dr. Pullar has been favoured with casts of Neumann's blocks, we have copies quite equal to the originals. To those to whom this portion of the subject is new, these illustrations will be objects of much interest, for it is not always easy to procure microscopic sections of diseased skin, especially in England, where there is no grand centre for their study, like the Allgemeine Krankenhaus in Vienna.

Neumann's book can well afford to stand on its own merits; it remains to say a word as to the translation. As aforesaid, this is most carefully done. In the first place, Dr. Pullar qualified himself for his self-imposed task by a residence of some duration in Vienna, and by study of the subject under both Hebra and Neumann; and in the second, his translation is the work of years instead of months. The rendering is good, and the book—in spite of a somewhat awkward size of page, necessitated by the size of Neumann's blocks, and some printer's errors—is a most convenient one. We cordially commend it alike to those who have and those who have not studied skin diseases in this country.

Notes on the Treatment of Skin Diseases. By Robert Liveing, A.M. and M.D. Cantab., Demonstrator on Diseases of the Skin, and Senior Assistant-Physician to the Middlesex Hospital. Second Edition, with additions. London: Longmans, Green, and Co. 1871.

The rapid sale of the first edition of this most useful little book is sufficient evidence that our first warm commendation was well merited. The writer has very wisely refrained from increasing the bulk of the volume by more than a few pages in this new edition, so that it is still a *bonâ fide* "pocket com-

panion." At the same time, some important additions have been made, of which the chief are hyperidrosis, vaccinia, varicella, and diseases of the nails, with some further valuable suggestions for the treatment of some of the more obstinate forms of eczema, and other skin affections. We are sure that students and practitioners alike will feel grateful to Dr. Liveing for providing them with such a complete manual in so convenient a form.

PROVINCIAL CORRESPONDENCE.

SCOTLAND.

EDINBURGH, November 13.

THE news that the Queen has been pleased to confer on Dr. Christison the honour of baronetcy, has been received by the Medical Profession and the public generally with the greatest satisfaction. It is the universal feeling that Dr. Christison has long been well deserving of such a distinction. It is also highly creditable to Scotland, to Edinburgh, and to the Medical Profession in this city, that a second time within a few years this high honour has been bestowed upon a Medical Professor in our University.

Dr. Christison's career is as well known as it has been distinguished. He was born in 1797, is the son of the late Alexander Christison, Professor of Humanity in the University of Edinburgh, and twin brother of the Rev. Alexander Christison, of Foulden, Berwick, a well-known scholar and man of taste. At the early age of 25, Dr. Christison was appointed Professor of Medical Jurisprudence, and ten years later was transferred to the more important chair of Materia Medica. Dr. Christison's writings on both of these subjects are many and important. His "Treatise on Poisons" is a standard work, well known throughout Europe. More than any other living man, he represents the Medical Profession of Scotland. Since the passing of the University Act in 1858 he has been the representative of the Senatus in the University Court. He has sat as one of the Crown nominees in the General Medical Council of Education and Registration since its commencement. At the present moment he is President of the Royal Society of Scotland. He is also Physician-in-Ordinary to the Queen for Scotland. All who know Sir Robert Christison will heartily unite in the desire that he may long be spared, not only to enjoy his new honour, but also to be—as assuredly he will be—an honour to the baronetcy.

The election of a Lord Rector of the University took place on Saturday last. This was preceded by the usual buddings of youthful eloquence and genius, and accompanied by the ordinary amount of peas, cabbages, and crackers. The latest and most effective missile was a little bag of thin paper filled with flour, which abounded like a snow-storm. It was an important feature in this election that the majority of the Medical students were disposed to make the question of female Medical education a vital one.

At a meeting which they held on the night of Wednesday last, in reference to this contest, Mr. Aitchison moved that the meeting should pledge itself to vote for no candidate who was not known to be opposed to mixed classes. He stated that he had asked Sir William Stirling Maxwell his opinion on this subject, and that Sir William had answered that he had not considered the question, and that, if he had, he would not state his opinion. He said, further, that Sir Roundell Palmer had been asked—"Is your opinion favourable to mixed Medical classes?" To which he had replied by telegram—"My opinion is not favourable to the education of male and female students in the same Medical classes." Mr. Cunningham Craig moved an amendment in favour of Sir William Stirling Maxwell, stating that he thought no man of honour would give such an opinion as that asked by Mr. Aitchison. The motion and amendment were put to the meeting, when upwards of 250 voted for the motion, and only 8 for the amendment.

At the election on Saturday, Sir W. Stirling Maxwell was returned at the head of the poll with a majority of 92 votes, 594 having voted for him, and 502 for Sir Roundell Palmer.

I have mentioned the fact of the importance attached in this election by the Medical students to the female Medical question. Let it not, however, be supposed that the result is therefore in favour of the ladies; for, although Sir William Stirling Maxwell refused to give any pledge on the matter, it was generally believed that he was opposed to mixed classes. The following is from a leading article in the *Courant* of Thursday last:—"We confess that we should indeed be very much surprised to find that Sir William Stirling Maxwell was in the least degree favourable to Medical classes for the joint and simultaneous instruction of male and female students, nor have we the slightest doubt that he is quite opposed to them." So that, while the opinion of the Medical students came out strongly in the election, the result of the election cannot be said to prove anything in this matter. Indeed, we know that many of the students who are strongly opposed to female Medical education voted without fear or hesitation for Sir William Stirling Maxwell.

At last the Senatus have done the right thing. At a meeting held on Saturday they resolved by a majority of 14 votes to 13 to rescind the existing regulations for the admission of female students to the University. It will be remembered that all that was at first promised was that an experiment should be made. The experiment has been made to the extent promised, and the results have not proved encouraging. If the University authorities can escape from the awkward predicament into which they have allowed themselves to be decoyed, it may not be altogether a matter of regret that the experiment has been made.

In the meantime the moral of the story is surely this. It is not always safe to let in the small end of a wedge, be that small end ever so polished and apparently harmless. A little farther on in the side of the wedge may come a trap, in which even University authorities—Medical Faculty, Senatus, University Court, General Council, and Chancellor—may find themselves caught, and perhaps painfully constrained to drag in after their entangled limbs the whole unknown creature with all its incalculable consequences.

IRELAND.

DUBLIN, November 13.

ON the 6th inst. an introductory lecture was delivered in the theatre of Jervis-street Hospital by Mr. Kelly, one of the Surgeons of the institution. The lecturer, in the course of a very able address, gave an interesting historical sketch of the Hospital, from its foundation, in the year 1726, to the present time. He stated that the Managing Committee had determined to erect a new Hospital, in consequence of the inadequate accommodation afforded by the present structure to the daily increasing wants of the suffering poor. From the situation of Jervis-street Hospital, in the immediate neighbourhood of a densely populated and poverty-stricken district of the city, in which severe accidents are of frequent occurrence, the philanthropic design of the Committee is well worthy of public support.

At the Adelaide Hospital the session was inaugurated, as I mentioned briefly in my last letter, on Monday week, by an address from Dr. Barton. The lecturer said that public Hospitals fulfilled a twofold object. They provided relief for human suffering, and they afforded a school for the technical instruction of students in the wards, this clinical training being the very fountain-head of Medical knowledge. The primary object of Medical skill was, and should ever be, the alleviation of actual bodily affliction, the prolongation of human life, and the prevention of deformity. The secondary purpose of Medical study was little lower than this, its chief aim—namely, to discover the sources and causes of disease, to suggest the means by which they might be prevented, and to obtain methods by which the various forms of external injury might be rectified. In this light, Medical Practitioners were divided, by an obvious distribution of labour, into Physicians and Surgeons; one of these classes was concerned with the nature of natural and organic disorders, and the other with external injuries. He referred to further subdivisions of Medical science—to the branches concerned with ophthalmic, auricular, obstetric, and other diseases—and remarked that such subdivisions had been already carried as far as was expedient. Excessive splitting up of the highways of Medicine into too minute branches might tend to obscure the main features of broad natural laws, and to lead to all bodily disarrangement being referred to the same cause. The Physician should care for the whole human race, without distinction of race, religion, or complexion; and he trusted that when it came to the turn of those whom he was addressing to apply their acquirements, they would never allow such distinctions as these to interfere with their anxiety to assist the afflicted and soothe the weary. When their sympathies were touched by application for relief, they should remember to place pecuniary reward as a purely secondary

matter in their consideration. These exalted motives they should never lose sight of in executing the noble work of their Profession. They should ever keep in check all unworthy impulses, and place recompense beyond their immediate calculation, no matter what case they should be called on to visit. He would now address them with respect to a subject known as Medical ethics, which might be defined as the code by which the immediate intercourse of Medical men with their patients and with one another should be regulated. With regard to patients, the Medical man was always bound, as he had already said, to give the best advice in his power, irrespective of what the position of the sufferer might be, making the diagnosis carefully, and treating accordingly. While he paid all due deference to any little prejudices of the patient, the Physician should never make any compromise with quackery, nor allow his regard for the opinion of some old woman to permit any nostrum to be tried upon a patient in his charge. If there was danger to the life of a patient, should the Medical man tell him so, or encourage him by holding out hopes of recovery which were unlikely to be realised? When death was imminent, it would certainly be false mercy to deceive a patient; but as long as there was no immediate danger, and a hope of recovery, it was better to cheer him forward. There were many instances in which people who laboured under organic disease of the heart lived well for many years. If those persons had been informed of their actual condition their lives would have been rendered miserable, and their deaths would, in all probability, have been hastened. The friends of the patient, however, should be honestly made acquainted with the true state of the case, although there were times when it was even more prudent to express to them a quiet doubt than to give a decisive opinion one way or the other. When they had to deal with cases which had been previously under the care of another Medical man, the most generous care should be taken to say nothing to damage his reputation, even when they had to differ from him and adopt a different course of treatment. The Army Medical Service now afforded fine openings to young Medical men. The dispensary Doctors of this country were still, however, for the most part, placed in an unsatisfactory position. The position they occupied had not sufficient official inducement to attract the best men, nor were the prospects of private practice much more encouraging. The institution of local village Hospitals, containing half-a-dozen beds, with a good, well-trained nurse to attend each, was one of the greatest desiderata in this country at present. Very great advantages would be afforded by them. In minor cases, patients would be spared the humiliation of going to the workhouse Hospitals; in more complicated ones, the delay, inconvenience, and danger of travelling fifteen or twenty miles to the county infirmary; while, at the same time, the local Surgeon would have his experience largely improved by having them from the outset under his own supervision. Institutions of the kind were to some extent established in England. They would cost very little; and he trusted that some gentlemen of property in Ireland would soon make a move in that direction.

In my letter of September 12 last, I alluded to the low death-rate of Dublin during the summer months of this year, and to the comparative immunity from small-pox enjoyed by our city up to that date. I regret to say that we can no longer congratulate ourselves on either a low mortality or an epidemic of variola disarmed of all its terrors. The death-rate, which for nine weeks from the beginning of July had averaged only 18 per thousand inhabitants annually, has risen to an average of 24·4 for the eight weeks commencing September 10 and ending November 4. The actual rates per week have been 24, 23, 23, 22, 31, 24, 24, and 24 respectively. The very exceptional (for Dublin) mortality of 31, which characterised the week ending October 14, was due to a large extent to the unusually severe weather of the last ten days of September and first week of October. The result of this was to raise the mortality from bronchitis to almost its winter level; for no less than twenty deaths were referred to this cause in the week in question. Diarrhœa, again, still continued to be prevalent, for it proved fatal in thirteen instances. In the same week ten deaths resulted from fever, and seven deaths from small-pox were registered. With the return of mild weather in the middle of October the mortality from pulmonary affections again declined.

The small-pox epidemic is assuming much more formidable proportions than was generally anticipated some time ago. Looking at the mere numbers of fatal cases published from week to week by the Registrar-General, we find that they are by no means inconsiderable; but, when we remember that in a population so protected by vaccination as is that of Dublin the mortality per cent. of persons attacked must be low, we obtain a clearer idea of the prevalence of the epidemic. In the six months ending September 2, the total number of deaths was 20. In the two months ending November 4, 51 persons died of the disease. The number per week of fatal cases registered has been, since September 2—2, 4, 4, 0, 5, 7, 7, 8, and 14 respectively. The increasing prevalence of the epidemic has caused some amount of panic among the lower classes, and the thronged waiting-rooms at the different city Dispensaries on "vaccination days" bear witness to the unpopularity of vaccinophobia in Ireland.

I may mention that the Poor-law Guardians of the North and South City Unions have proved themselves equal to the occasion, and have not only entered into arrangements with several Hospitals for the reception of small-pox patients, but also taken steps to open wards in sheds especially adapted to the purpose.

At the risk of exhausting your patience by the length of this letter, I would refer to the fact that on Saturday, the 11th inst., the presiding magistrate at the Northern Divisional Police-court made an order for the absolute closing, after the lapse of a fortnight, of several houses in Church-street and its vicinity—one of the filthiest, most fever-stricken parts of the city. The landlords of the condemned houses had been repeatedly summoned and fined; but this was apparently without effect, for the Corporation Inspector described the basement story of these human habitations as presenting a most horrible appearance—a sea of filth covering the ground, and even oozing up through the floor, when it was walked upon. The same houses have long been hotbeds of fever, and in one of them an outbreak of small-pox has lately taken place.

GENERAL CORRESPONDENCE.

ON THE RELATION OF OSTEO-MYELITIS TO PURULENT INFECTION.

LETTER FROM DR. FORT.

[To the Editor of the Medical Times and Gazette.]

SIR,—You have probably received some account of the reading of the memoir, which M. Demarquay has presented, before the Academy of Medicine. Will you allow me to note a single point with regard to it concerning histology.

In his memoir M. Demarquay has said that osteo-myelitis often coincides with purulent infection, and that this inflammation is one of the most frequent causes of purulent infection. In anatomy and physiology it is admitted that the marrow of bone is gifted with a very energetic power of absorption, of which M. Demarquay has wished to take advantage in his experiments on rabbits. He drills through the lower extremity of the femur of the animal with a gimlet. Thus the medullary canal is reached; into this he injects some drops (from 60 to 100) of pus, and the animal dies some time after with all the lesions of purulent infection—visceral congestion, metastatic abscess, etc. These experiments recall to mind those of M. Sédillot, of Strasburg; their only object here was to demonstrate the vascular absorption of the medullary canal of bone.

At the Academy, the greater part of the members who took part in the discussion after the reading of the memoir contended that M. Demarquay had injected the pus directly into the veins opened by the perforating instrument. On his side, the experimenter contended for the contrary, admitting only an exceedingly active absorption on the part of the osseous vessels.

On which side lies the truth? It is difficult to say.

A priori, it seems more logical to admit a rupture of the veins, and the penetration of the purulent matter into their cavities. There is, however, another explanation possible, which I will try to make clear.

To understand this it is indispensable to recall some histologic ideas founded on the researches of Cohnheim, Neumann, and Bizzozero.

The treatment of tissues by nitrate of silver solution has shown to Cohnheim and Recklinghausen, as well as to other microscopical observers, that the true capillaries supposed heretofore to be possessed of an amorphous homogeneous wall, are in reality formed by epithelial cells in close juxtaposition (the endothelium of His), exactly as if they were formed by a single layer of epithelium rolled round on itself.

The remarkable researches of Cohnheim on suppuration seem to prove that pus corpuscles encountered without the capillaries are only the white blood-corpuscles which have made their way through the vessel's wall. These corpuscles, as

everyone knows, are endowed with amœboid movements of a very active kind.(a)

Thus, Cohnheim has been able several times to make out amœboid elongations of the white corpuscles of the blood, introducing themselves into the little interspaces which separate the epithelial cells forming the wall of the capillary.

On the other hand, Neumann and Bizzozero assert the foregoing phenomena, saying that the bony marrow is a blood-forming tissue. According to Bizzozero, the young medullary cells, gifted with energetic amœboid movements, penetrated the capillaries, elongating themselves between the epithelial cells of the capillaries, and went to form white blood-corpuscles which in turn transformed themselves into red corpuscles.

If the observations of Bizzozero are exact, I do not see why they cannot explain M. Demarquay's experiments. It is quite possible that pus introduced into the medullary canal of the femur should determine inflammation and suppuration of the marrow. The medullary cells give birth by proliferation to pus corpuscles; but these, above all other young corpuscles, exhibit many amœboid prolongations. These phenomena being granted (and I do not see why they should be rejected), it is logical to admit that, in the experiments of M. Demarquay, the pus corpuscles penetrated the capillaries through their epithelial covering.

I am, &c.,
Dr. Fort,
Professeur libre d'Anatomie
à l'Ecole Pratique de Paris.

Paris, November 2.

*** We have long been familiar with the facts alleged by Dr. Fort; and three years ago we gave an account of the researches of Neumann and Bizzozero, and shortly after had occasion to point out the important bearing they had on pyæmia. We have also repeatedly pointed out the close connexion between osteo-myelitis and pyæmia. In the American war this was especially noticed, and our esteemed contributor, Professor Fayrer, has long insisted upon their essential relationship. No doubt whatever the bony marrow consists of elements not greatly different from leucocytes, in which rapid proliferation may be set up and the wide-mouthed veins severed in operations on bone, and, unable to retract owing to their connexion with the hard bony tissue, offer them only too easy access to the current of the circulation. But this is not everything in pyæmia—much yet requires explanation.

GLOUCESTERSHIRE MEDICAL AND SURGICAL ASSOCIATION.

Letter from Mr. John P. Wilton.

[To the Editor of the Medical Times and Gazette.]

Sir,—I enclose a copy of a resolution and amendment which were discussed at a special meeting of the above Association, called to consider the Report of the Royal Commission on the Contagious Diseases Acts (human). The attendance at the meeting was small, the number of members present being sixteen. Many other gentlemen had expressed their intention of attending, but were prevented doing so by Professional engagements at the last moment. Of the numbers present seven voted in favour of the resolution and eight supported the amendment. In accordance with the rules of the Association, such members as were unable to attend the meeting were invited to express their views by letter. Three absent members supported the amendment and two the resolution.

I am, &c.,
John P. Wilton, Hon. Sec.

Gloucester, November 13.

Resolution proposed by Dr. Washbourn, Gloucester; seconded by Dr. Paine, Stroud—"That, in the opinion of this Association, the Report of the Royal Commission upon the administration and operation of the Contagious Diseases Acts, conclusively proves that in all localities in which the provisions of the Acts have been enforced, great advantages, both moral and physical, have been the result. This Association therefore believes that the extension of the provisions of the Acts to all sea and inland ports of the United Kingdom would be productive of similar benefit—namely, a marked and progressive diminution both of prostitution and disease."

Amendment proposed by Dr. Morley Rooke, Cheltenham; seconded by Dr. Davey, Northwoods, near Bristol—"That, in the opinion of this Association, the Report of the Royal Commissioners upon the administration and operation of the Contagious Diseases Acts, tends to show that whilst *some* physical advantages *may* have resulted from these Acts, the Commissioners have very grave doubts as to their moral effects and bearings, and in the face of recommendations by the Commissioners for such amendments of these Acts, as would do away with the principal objections of their opponents, it is highly inopportune for this Association to urge an extension of these Acts in an unmodified form to other parts of the kingdom."

(a) In histology they now admit that the pus corpuscles and the white blood-corpuscles are identical (Cohnheim, Robin, Virchow).

HUTCHINSON *v.* WATSON.—AN APPEAL TO THE MEDICAL PROFESSION.

Letter from Mr. G. S. Banham.

[To the Editor of the Medical Times and Gazette.]

Sir,—Your very opportune and just remarks on the above case render it almost unnecessary for me to refer to the monstrous injustice to which Dr. Watson has been subjected. After successfully repelling a groundless attack on his reputation, by most convincing evidence, and after undergoing many months of anxious suspense, with a heavy and unwarrantable charge of improper, negligent, and unskilful treatment hanging over him—unable the meanwhile to offer one word of defence—he is called upon, after obtaining his triumph of justice, to discharge all pecuniary liability, amounting to £150, the plaintiff being unable to pay costs. The danger which every Medical man incurs in encountering actions of this unjust character is a personal one. No one can regard himself safe from such a calamity, which may involve him in ruin. It is, therefore, the duty of every Medical man to be true to the interests of our Profession—to help to the utmost every brother Practitioner who has the great misfortune of being a victim of a cruel and groundless charge of negligence and unskilfulness. In this case there was scarcely any evidence in support of the plaintiff, even if that of the plaintiff herself be included—a hysterical woman undergoing the pains of labour. The evidence in support of defendant's case was overwhelming, Dr. Keiller and other eminent Practitioners exonerating the defendant from the serious charge brought against his reputation. Where is the remedy for the injustice which Dr. Watson is called upon to bear? There is, indeed, no remedy, except it be the partial one which his Professional brethren may render him—the tangible support by which they may assist to bear the burden which has fallen so heavily on him. I need scarcely insist on the hardship of such a case. It is an injustice against the whole Profession. The Medical men of the district, who are fully acquainted with the facts, have generously supported Dr. Watson, and voluntarily came forward at the trial to give evidence in his behalf. Subscriptions will be thankfully received by Dr. G. H. Hume, 55, Westgate-street, Newcastle-on-Tyne; Mr. William Berry, 27, Steven-street, Glasgow; or by

Mr. G. S. Banham, Secretary.

9, Russell-street, Stockton-on-Tees.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

Tuesday, November 7.

Mr. Hilton, President, in the Chair.

The President, on taking the chair, expressed his regret at having been compelled, by his duty as Examiner at the College of Surgeons, to be so frequently absent. He trusted that this year the meetings would fall more fortunately for him.

Dr. Pye-Smith exhibited a specimen of what he termed Cystic Kidney from a young male subject. He had been suffering from diarrhœa, when, one morning, he noticed his abdomen swollen, and when examined it turned out that his left side was occupied by a large, smooth, solid mass, dull, and somewhat elastic. He had several times been kicked by horses, being a farrier by trade, and on one occasion, some years before, he had passed blood. His urine was healthy. The swelling was tapped by a small trocar, and several pints of blood and pus came away. The tapping had to be repeated more than once, and he left the Hospital. After a time he died, when it was found that the left lung was adherent to the diaphragm, and there were many peritoneal adhesions. The tumour turned out to be a large cystic kidney. The ureter was healthy, but

blocked at one spot. The other kidney was swollen. Some food was found in the tumour, showing a communication with the bowel—probably the descending colon. He thought that when the man passed blood the ureter had been torn, that it had imperfectly re-united, and, finally, completely contracted.

Dr. Gibbon asked what was the cause of death.

Dr. Dickinson thought the case might be explained otherwise. The blow to have caused rupture of the ureter must have been very severe, and would have caused great local disturbance, of which there was no history. The origin was much more probably a calculus, which had escaped gradually, and constriction of the ureter followed, which, in its turn, would cause enlargement of the kidney.

Dr. Hare objected to the term "cystic" being applied to simple dilatation of the kidney. A blow could not give rise to cystic disease. In this instance all the saccules communicated with the pelvis of the kidney, which was not the case in cystic disease. He thought they might have this condition without any calculus, merely by a twist of the ureter, as in hydronephrosis.

Dr. Thorowoood was glad to hear that there might be occlusion of the ureter without a calculus, as in a similar case he had reported it was suggested that the calculus had been missed.

Dr. Murchison said Mr. Stanley had reported a number of cases of occlusion of the ureter from injury. He had done so, also. He thought it very improbable that there had been a calculus in this case.

Mr. Hulke did not think the traumatic origin of the dilatation untenable, as severe internal injuries were often unaccompanied by external marks.

Dr. Pye-Smith, in reply, stated that he had no idea of confounding cystic degeneration with dilatation. He did not understand the twisting of the ureter suggested, and he did not think there had been any calculus.

Mr. Squire exhibited a specimen of Ulcerated Intestine and Enlarged Kidney from a boy aged 13. Two years ago he had suffered from pulmonary tubercle, but he got better. This autumn he got diarrhœa, but he recovered somewhat, when anasarca set in. This, however, left in its turn, and he died of diarrhœa. His urine had been plentiful, of high specific gravity, and containing much albumen. There were signs of peritonitis, and ulcers in the intestine extending to the serous coat. There were grey tubercles in the lung.

Dr. Powell asked the date of the lung disease, and the kind of kidney disease.

Mr. Squire replied that the lung was affected three years ago.

Mr. Hulke said the extinction of tubercle in one part need not imply its extension in another part. This was well seen in bone operations.

The specimen of lung was referred to Drs. Powell and Whipham.

Dr. King showed the Heart and Spleen of a patient who six years ago had Rheumatic Fever. Not long ago he complained of dyspnœa, palpitation, etc. Some time elapsed, and he complained of violent pain in the region of the spleen. A month after signs of apoplexy came on; he recovered for the time, but afterwards sank. Emboli existed in the brain and spleen. There were vegetations on the mitral valve, and a pouch projecting from the ventricle into the auricle.

Dr. Murchison asked the nature of the mass in the brain.

Dr. King said there was no embolus in the anterior cerebral artery, but in its neighbourhood a cheesy mass. Nothing was elsewhere to be seen.

Dr. Leared had that afternoon examined a somewhat similar case, the details of which he hoped to bring before the Society on another occasion. The brain was affected on the left side.

Dr. Baümler asked if plugs had been found in the spleen; but the organ had not been cut up.

Dr. Murchison explained that these masses found in the brain are really independent of emboli, as they are often found in fevers where there has been no heart disease. In a specimen he had exhibited, the spleen had been like this, so had the kidneys and femoral arteries, the patient finally dying from brain disease, induced in the same way. There was a tendency to a deposit from the blood in these cases. Perhaps there was a similar tendency in rheumatic fever.

Dr. Cayley said that in heart disease the lung was thus affected by early coagulation of blood in the heart, extending to the lung. In these the coagula were formed weeks before, and after death the blood was found fluid in the heart.

Dr. Pye-Smith suggested that these were venous thrombi carried round to the arterial system.

Dr. Gibbon objected that such would be stopped in the lung.

Mr. Hulke exhibited a number of specimens of Epithelioma, in none of which was there any family history of cancer. 1. Epithelioma occurred in the forearm in a man aged 64. Early in life his arm was crippled, and his hand remained stiff. One spot in the scar was thin. Ten years ago it grew irritable, and a wart grew, which he pared from time to time. Two years before the present date it began to enlarge much, but the axillary glands were unaffected. He amputated the arm, and the man did well. 2. This also originated in a scar on the scapula. The patient had been burned when seven years old, and the sore was three years in healing. It remained irritable in the centre. Here she received a blow; the scar broke and bled, and a warty mass grew. There was no gland enlargement. The mass was excised, and chloride of zinc applied. She did well. 3. Epithelioma of the tongue occurred in a man who had long suffered from what had been called ichthyosis of the tongue, consisting of hypertrophied papillæ. He used to pare this with his knife. Epithelioma came on. A great part of the organ was removed, but the disease returned, and he died. 4. This also was a case where the patient had suffered from leathery patches on the tongue. A knot formed in it, but a great part of the tongue had been removed by the écraseur, and the patient had done well.

Dr. Edis said that from observations on the uterus he was inclined to think such maladies were distinctly local. When, however, they were not interfered with, three years was their general term. In one instance, where he had been able fairly to remove the disease, the patient had done well. In two others he had used the actual cautery to remove all traces of the disease, and those also had done well. In one, what was two years ago a rapidly extending epithelioma, was now practically a sound uterus. In another, the operation came too late to save life.

CLINICAL SOCIETY OF LONDON.

Friday, October 27, 1871.

Dr. W. W. Gull, F.R.S., President, in the Chair.

Mr. Hulke exhibited a blacksmith, from whom, in August, 1870, he had removed, in the Middlesex Hospital, by excision and cauterisation, a very large Rodent Cancer of the left side of the face. It had eaten away the whole lower eyelid and part of the upper one; it had also invaded the orbit and destroyed the eyeball, and opened the frontal sinus and nasal passages. The patient returned in August last with two small growths of the size of a threepenny-piece. These were destroyed with zinc paste, and the whole surface now seemed perfectly healthy. There was now a large hollow, lined with healthy mucous membrane, showing the lower and middle turbinated bones, the openings into the frontal sinuses and nasal passages, and the antrum. This chasm could be hidden by a mask. Mr. Hulke said that the danger of operating in these advanced stages was over-estimated, and that with care the actual cautery and a chloride of zinc paste could be safely used, even to the roof of the orbit.

Mr. G. Lawson exhibited a patient from the Middlesex Hospital on whom he had operated successfully for a Rodent Cancerous Ulceration, involving the upper eyelid and extending into the orbit and on to the side of the nose. On account of the extent of the disease the eye was first excised, and then the whole of the diseased structure was removed with a scalpel. The bleeding having been arrested by the actual cautery, the chloride of zinc paste, spread on pieces of lint, was freely applied to the cut surface; a layer of cotton-wool was then laid over the parts, and the whole was kept *in situ* by a turn of a bandage round the head. The patient suffered comparatively little from the operation. The pain which she had was relieved by a subcutaneous injection of morphia. Large sloughs soon came away, and portions of the bony walls of the orbit exfoliated, and ultimately the granulating surface of the wound cicatrised. There was now a large gap, showing the upper portion of the nasal cavity and some of the ethmoidal and frontal cells; but the parts were all healthy and cicatrised, and there was reason to hope there would be no recurrence of the cancerous ulceration.

The President suggested that the patients should be photographed, with a view to representation in the *Transactions*.

Dr. Moxon asked the structure of the growth removed.

Mr. Hulke said it consisted, as far as the indurated edges were concerned, almost wholly of small round cells, with no intercellular substance.

The PRESIDENT asked how the chloride of zinc paste was made, and

Mr. HULKE replied that it was made by mixing chloride of zinc and boiled starch, to which a little laudanum was added, till it reached the consistence of honey.

Dr. MOXON asked whether such cells would be sufficient to characterise the growth clinically.

Mr. HULKE said he accepted Virchow's definition of cancer. These were really specimens of ulcerated cancer to which he thought the definition would apply.

Mr. BERKELEY HILL said one marked feature of rodent ulcer was its tendency to return. He had one now under his care, which had returned again and again. He had arrested it for a time by nitrate of zinc and glycerine, but it returned.

Mr. HULKE would not deny the possibility of recurrence even again and again, but that depended mainly on defective eradication ; and by this method, when it recurred it could be easily removed.

Dr. LEONARD SEDGWICK had found zinc and glycerine to run and increase the discharge. He had added tannin to the compound.

Mr. GEORGE LAWSON said a good powder was formed by mixing chloride of zinc with the oxide, which could be easily employed. Many cases treated this way remained long unaffected.

Mr. DE MORGAN said zinc paste does not run, and this is its great convenience. He thought Dr. Moxon's question important. He thought they could not deny the alliance of rodent ulcer with epithelioma, which was truly cancerous. These two would represent the two least infecting forms of cancer. When the surface was destroyed at once, and the antiseptic applied, very little constitutional disturbance followed. He had seen a case of epithelioma in a gentleman, aged 84. The diseased parts were cut out, the hot iron applied, after which chloride of zinc was put on, and he recovered without a single bad symptom.

Mr. HULKE said they could easily regulate the depth to which the caustic should eat, by the thickness of the layer on the lint. It had hardly any tendency to run. In a case where the whole upper maxilla was removed, he applied chloride of zinc to an enormous surface, but it did not run in the slightest

Dr. C. THEODORE WILLIAMS related three cases of Phthisis, in which contraction and rapid obliteration of cavities had taken place. The patients were two females and one male, and their respective ages were 15, 53, and 27. They had symptoms of phthisis for periods varying from six to twelve months; the disease being for the most part limited to the upper lobe of one lung, where unequivocal signs of a cavity had appeared. The first was a case of caseous pneumonia, where the cavity became obliterated in two months, and the patient has since remained free from cough for more than one year. In the second case, which, from the great prostration, excessive night-sweats, and aphthous state of the mouth, was regarded as unfavourable, the disease followed pleuro-pneumonia, and closure of the cavity was complete in three months. In the third case the patient had fistula, followed by scrofulous pneumonia; and a large tinkling cavity, involving the whole upper lobe of the right lung, formed, which became obliterated in two months, cavernous sounds being no longer detected. All three patients were free from family predisposition. They took cod-liver oil, with tonics, and enjoyed a liberal diet. Dr. C. T. Williams remarked that contraction had taken place with unusual rapidity in these cases; and the remarkable feature was, that it gave rise to little or no displacement of the neighbouring organs, and to no marked collapse of the chest. He therefore concluded that the vacuum created by the shrinking of the cavities must have been supplied by an expansion of the lung tissue round the cicatrix. The obliteration in two months of a cavity sufficiently large to give tinkling sounds was an exceedingly rare occurrence.

Dr. HABERSHON considered the diagnosis of a cavity in phthisis far from easy. No ordinary physical signs sufficed. Everyone must have seen cases with dulness, loud breathing- and voice-sounds, where there was only local consolidation, and they soon got well. He remembered a case where blood was extravasated and condensation existed, yet the patient soon got well. In two of the instances adduced it was doubtful whether the signs were not due to local pleuro-pneumonia.

Dr. C. J. B. WILLIAMS said that he had seen one of the cases, and could confirm the diagnosis. In one metallic tinkling existed, and there could be no doubt of the existence of a cavity, and a large one. He did not remember seeing such another case. In the first instance there were signs of consolidation, afterwards softening and a cavity. The voice-sounds were quite distinct from bronchophony. The puffing breathing was also characteristic. The cracked-pot sound was present in two, and that was a tolerably certain mark. Dr. Addison, who advanced the opinions uttered by Dr. Habershon, was very sceptical.

Dr. MOXON considered the difficulty not altogether removed by Dr. Williams's speech. An incorrect diagnosis was not very infrequent in his experience, especially when only one examination had been made. The first case he did not consider conclusive. The words " cavernous croak " made use of were partly inferential. Often at the post-mortem they found the parts solid they expected to find cavernous. As to one case a single observation only was recorded. There was often a large accumulation of mucus blocking up a tube leading to a cavity. As to the evidence of filling up, there was a little shrinking where he would have expected much. There was neither evidence of the existence of a cavity nor of its cure.

Dr. POWELL said there was no doubt in his mind of the existence of a cavity. They often found evidences of a closed cavity such as enlargement of the opposite lung ; also, sometimes, a cavity empty and flattened. Lung disease often extended by inflammation of the interior of a cavity, with ulceration, and perhaps hæmorrhage. Sometimes there was sphacelus, which gave rise to pneumonia.

Dr. MOXON said he had no doubt of the contraction of cavities; that was not the question in hand.

The PRESIDENT said the real point at issue was—Can you make an absolute diagnosis of a cavity ? He did not think one could. He remembered a case of pleuro-pneumonia where there were all the signs of a cavity at one particular spot. They marked it, and when the man died they carefully examined, and found it solid. There were all the signs of a cavity, including pectoriloquy unmistakably.

Dr. C. J. B. WILLIAMS replied that if they relied on intensity of sound they would be deceived, as that might be produced by tracheal resonance if the lung apex was solid. The point was, the existence of an island where voice-sounds were heard. They might have cavernous sounds from the bronchi. The history of these cases was totally different from those adduced in opposition. By a cavernous croak he meant the sudden entrance of air into a cavity.

Dr. C. T. WILLIAMS, in reply, admitted the difficulty of a diagnosis; still, here all the facts pointed one way. Several observations, not one only, had been made.

OBITUARY.

CALEB WILLIAMS, M.D., F.R.C.S.

ON Sunday, November 5, after an increased illness of a few days, died Dr. Caleb Williams, in the 73rd year of his age, the eldest member of the Medical Profession in York. His early Professional education was under Dr. Travis, of Scarborough, with whom he remained till he was 21. He afterwards attended Guy's and St. Thomas's Schools in London, and spent a short time in those of Paris. At the age of 25 he commenced practice in York; in the same year he was chosen as Visiting Medical Officer to the Friends' Retreat. On the ground of declining health he resigned this appointment in April, 1871, after having filled it uninterruptedly for nearly fifty years. In 1864 he succeeded Dr. Thomas Simpson as Consulting Physician to the York County Asylum.

In 1832 that terrible epidemic, the cholera, broke out in York. In common with some of his fellow-Practitioners, he was faithful to his trust in this severe visitation. In addition to Medical skill and care, he was enabled, as the almoner of some of his friends, to minister to the wants of the poor and destitute, by providing the means of additional food and other necessaries for the sick. For twenty years he occupied the chair of Materia Medica and Therapeutics in the York School of Medicine. This post he resigned in 1858. The School has since been closed.

In addition to his connexion with the two institutions already mentioned, Dr. Williams was Visiting Medical Officer to two private asylums in the neighbourhood of York. His large experience in the treatment of the insane gave him a wide-spread reputation, and his aid was sought for from far and near by the friends of this unhappy class.

Fifteen years ago Dr. Williams appeared as the advocate of a wider range of the plea of insanity in criminal cases than judges or jurors or public opinion were then prepared to admit. In 1856 he made known his opinions, the results of long and careful observation, in a work on " The Criminal Responsibility

of the Insane." Recent events have shown that public opinion now adopts wiser and more humane views on this subject.

Dr. Williams's course as a Practitioner was one of constantly increasing reputation. His skill and judgment in his Medical career, of which his success is some guarantee, was united with refinement, courtesy, and gentleness of manner, that made him a favourite with his patients and their friends. His well-known character as a Christian gentleman gave him opportunities of speaking words of comfort by many a bedside, so that, whilst alleviating physical suffering, he was often enabled to minister to and to soothe the anxious or troubled spirit.

Dr. Williams took no part in politics. He cordially united with his fellow-citizens of every denomination in the support of the numerous philanthropic, benevolent, and educational institutions in the city. The County Hospital, the Dispensary, and the Penitentiary were especial objects of his interest and care. For forty years he was an esteemed minister of the Gospel in the Society of Friends.

On Thursday, November 9, his remains were deposited in a vault in the Friends' Cemetery, Heslington-road. The funeral was attended by many members of the Medical Profession, by many of his fellow-citizens, and his friends from far and near.

MR. A. MULLAN, M.R.C.S.

We regret to record the death, on board the *City of Antwerp* steamer, on the 5th inst., of Mr. Andrew Mullan, Surgeon R.N., invalided from the *Sparrowhawk*, on the Pacific station. He died from aneurism of the aorta. Mr. Mullan's remains were landed at Haulbowline Hospital.

NEW INVENTIONS.

DUNN AND HEWETT'S BROMATINE.

This is described as a "cocoa deprived of its superfluous butter." It belongs to the class of preparations soluble in boiling water, although improved if made to boil for a time. It has the agreeable, sub-astringent, clean taste of the cocoa, and nothing luscious or dyspeptic. It seems a good and economic preparation. Daniel Dunn is asserted to be the inventor and earliest manufacturer of soluble preparations of cocoa.

MEDICAL NEWS.

Royal College of Surgeons of England.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted Members of the College at a meeting of the Court of Examiners on November 14:—

Adams, Robert, Gunnislake, near Tavistock, North Devon, student of University College.
Atkins, Francis Grant, Barbadoes, of St. Mary's Hospital.
Baber, Edwd. Cresswell, Thurloe-sq., Brompton, of St. George's Hospital.
Barlow, Thomas, Greenthorne, near Manchester, of the Manchester School.
Biggs, Moses George, L.S.A., Welford, Northampton, of University College.
Davies, Arthur Evelyn, L.S.A., Newport, Mon., of University College.
Davoren, John Lucius, B.A. and M.B. Dub., Wandsworth, of the Dublin School.
Giffard, Douglas William, Guernsey, of St. Bartholomew's Hospital.
Godrich, Alfred, Fulham-road, of St. George's Hospital.
Hammond, Robt. Edwd., St. Helens, Manchester, of the Manchester School.
Hayes, Aylmer Ellis, Tavistock-crescent, of St. Mary's Hospital.
Hill, Thomas Wood, L.R.C.P. Edin., South Kensington, of St. George's Hospital.
Hodson, William Edward, L.R.C.P. Edin., Bishops Stortford, of the Charing-cross Hospital.
Jackson, James, L.S.A., Wootton Bassett, of St. Thomas's Hospital.
James, William Dale, Yonge-park, Islington, of the Sheffield School.
Lang, John Messiter, L.S.A., Thatcham, Berks, of St. George's Hospital.
Lawrence, Henry, Clifton, Somerset, of the Bristol School.
Lyth, John Burdsall, Sheffield, of the Liverpool School.
Maisey, Frederick Thomas, L.S.A., Cheltenham, of Guy's Hospital.
Marshall, John, L.S.A., Bolney, Sussex, of Guy's Hospital.
More, James Huson, L.R.C.P. Edin., Manchester, of the Manchester School.
Newberry, William John, L.S.A., Liverpool-road, of St. Bartholomew's Hospital.
Price, Charles Williams, Merthyr Tydfil, of University College.
Raines, Charles, L.S.A., Hull, of the Hull School.
Randolph, Charles, Milverton, Somerset, of the Bristol School.
Seymour, Francis, L.S.A., Odiham, Hants, of Guy's Hospital.
Sinclair, Daniel Archibald, M.D. Victoria College, Toronto, London, Canada West, of the Toronto School.
Thompson, Henry, L.S.A., Hull, of the Hull School.
Tims, Thos. Lamb, L.R.C.P. Edin and L.S.A., Warwick, of Guy's Hospital.
Turner, Francis Charlwood, M.A. Cantab., of Guy's Hospital.
Wacher, Frank, L.S.A., Underdown, Kent, of Guy's Hospital.
Walker, Robert, Melbourne, Australia, of St. George's Hospital.
Webb, Charles Frere, L.R.C.P. Edin., Basingstoke, of King's College.

The following gentlemen were admitted Members on November 15:—

Baily, Thomas, Birmingham, student of the Birmingham School.
Beech, Lionel, Grays, Essex, of the London Hospital.
Bridgman, Henry Edward, Torcross, Kingsbridge, Devon, of St. Bartholomew's Hospital.
Cockburn, John Alexander, Birkbeck-road, of King's College.
Coulter, William, M.D. Queen's University, Ireland, Belfast, of the Belfast School.
Coupland, Sidney, Streatham, Surrey, of University College.
Duke, Douglas William, Upper Norwood, of Guy's Hospital.
Dustan, Henry, Jersey, of University College.
Elliott, Frederick William, Turnham-green, of University College.
Hosking, Ethelbert, Woburn-square, of King's College.
Jackson, Thomas William, L.S.A., Leyland, Lancashire, of Guy's Hospital.
Kilner, Walter John, B.A. Cantab., Bury St. Edmunds, of St. Thomas's Hospital.
Mackenzie, Lewis, *Dreadnought* Hospital Ship, Deptford, of the London Hospital.
Meredith, William Henry, L.S.A., Netherton, near Dudley, of the Birmingham School.
Parnell, Gerald Crecy, Sussex-place, Regent's-park, of St. Bartholomew's Hospital.
Richmond, Ooslow Robert, Hornsey, of King's College.
Thane, George Dancer, jun., Montague-street, of University College.
Wall, William Barrow, L.R.C.P. Lond., Wedmore, Somerset, of University College.
Wesley, William Ken, Gloucester, of St. Bartholomew's Hospital.
Wheeler, Daniel Martin Bonniwell, L.S.A., Chelmsford, of Guy's Hospital.

Apothecaries' Hall.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, November 9, 1871:—

Graham, George William, Winchester.
Mayne, Thomas, Devonport.
Seymour, Francis, Odiham.

As an Assistant in compounding and dispensing medicines—

Wolff, Edward Parker, Evelina Hospital, Borough.

The following gentlemen also on the same day passed their first Professional examination:—

Edwards, Alfred, University College.
Griffith, William Edwin, Middlesex Hospital.
Hawthorn, William Thomas, London Hospital.
Woodward, George, St. George's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Allan, James, M.B. Glasg., L.R.C.S. Edin.—Medical Officer for the Newmilus District of Londoun Parish, *vice* J. Davidson, Surgeon, resigned.

Cayley, W., M.R.C.P.—Physician to the London Fever Hospital, *vice* Dr. Harley, resigned.

Fry, J. B., M.R.C.S.E., L.S.A.—Medical Officer for the Third District of the Highworth and Swindon Union.

Garton, William, M.R.C.S., etc.—Resident Clinical Assistant at the Hospital for Consumption, Brompton, S.W.

Keys, Robert Atchison, L.R.C.P., L.R.C.S. Edin., etc.—Assistant Medical Officer at the Toxteth-park Township Workhouse.

Lomas, Wm., M.D., M.R.C.P. Lond.—Physician to the Finsbury Dispensary, *vice* Dr. Wm. Abbotts Smith, M.R.C.P. Lond., resigned.

Matterson, William, M.D., M.R.C.P.L.—Consulting Physician to the Asylum, Bootham, York.

Neal, Bleward, L.R.C.P. Edin., etc.—Assistant Medical Officer to the Cornwall County Asylum, *vice* W. G. Derry, M.R.C.S., resigned.

Phillips, Alfred, M.R.C.S. Eng., L.S.A.—Resident Medical Officer, *vice* G. L. May, M.R.C.S., L.S.A., resigned.

Williams, Isaac M., M.R.C.S.E., L.M., L.S.A.—Visiting Medical Officer to the Lawrence House Asylum, *vice* Caleb Williams, M.D., F.R.C.S., deceased.

BIRTHS.

Currey.—On November 7, at Lismore, co. Waterford, Ireland, the wife of J. E. Currey, M.D. St. And., M.R.C.S., of a son.

Elliott.—On November 13, at Manor-road, Forest-hill, the wife of John W. Elliott, M.R.C.S. Eng., of a daughter.

Ingles.—On November 13, at The Shamrocks, Weymouth, the wife of J. Chamberlayne Ingles, Staff Surgeon H.M.S. *Achilles*, prematurely of a son, stillborn.

May.—On November 2, at Tottenham, the wife of Edward Hooper May, M.D., of a daughter.

Oldnixon.—On November 4, at Talfourd-place, Denman-road, Peckham, the wife of Dr. George Scott Oldnixon, of a daughter.

Shone.—On November 7, at Great Marlow, Bucks, the wife of W. J. Shone, Surgeon, of a son.

Thomas.—On November 13, the wife of William Thomas, F.R.C.S., of 97, Bradford-street, Birmingham, of a son.

MARRIAGES.

Atkinson—Daly.—On November 8, at Holy Trinity Church, Hull, the Rev. H. Sadgrove Atkinson, B.A., to Elizabeth Francis (Lily), eldest daughter of Dr. Owen Daly, F.R.C.P. Lond., and J.P. for the East of Yorkshire.

Averill—Goodwyn.—On November 8, at the parish church, Tetbury, Alfred Averill, Surgeon, Tetbury, to Maria Anne Goodwyn, third daughter of J. G. Goodwyn, Retreat House, Tetbury.

BERTRAM—HORLOCK.—On November 9, at the parish church, Shorwell, Isle of Wight, William, youngest son of the late James Bertram, Esq., of Corve, Chale, Isle of Wight, to Lucy Grimes, youngest daughter of the late Robert Horlock, Surgeon, of Newport, Isle of Wight.

MASSEY—HOLLAND.—On October 28, at St. Peter and Paul Catholic church, Joseph Francis Massey, Esq., to Hannah Alloysia, eldest daughter of the late Dr. R. G. Holland, of Highgate, Middlesex, and Sheffield, Yorkshire.

PERKINS—BANNISTER.—On November 7, at All Saints', Hessle, East Yorkshire, Thomas Perkins, Surgeon, Snaith, to Polly, daughter of Anthony Bannister, J.P., Kingston Lodge, Hessle.

DEATHS.

ALLEN, FRANCES ROSE, infant daughter of W. E. Allen, F.R.C.S., H.M.'s Bengal Army, at Chittagong, East Indies, on October 8, aged 3 weeks.

BULLEN, GEORGE, F.R.C.S., at Carr-street, Ipswich, on November 11, aged 80.

FRITH, CLARA, widow of the late Dr. Frith, of Calcutta, on November 7, aged 73.

KEENBYSIDE, SIBELLA, wife of Richard Headlam Keenbyside, M.D., Vernon House, Surbiton, on November 13, aged 67.

PRICHARD, PHILLIPPA, widow of the late Thomas Prichard, Surgeon, of Sidcup, Kent, at 18, Palace-road, Lambeth, on October 27, in her 62nd year.

ROWLAND, HENRY OXFORD, Surgeon, second son of the late Mr. Samuel Rowland, of Akenham Hall, Suffolk, at his residence, Claydon, on November 8.

WETHERHEAD, THOMAS, Surgeon, at his residence, Prees, Shropshire, on November 2, aged 55.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

BIRMINGHAM GENERAL HOSPITAL.—House-Governor and Secretary. Applications and testimonials to Mr. Francis Fowke, on or before November 30.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—House-Surgeon. The gentleman appointed must be a Member of one of the Colleges of Surgeons of the United Kingdom. Applications and testimonials to the Secretary, on or before December 4. Election on the 12th.

BRADFORD FEVER HOSPITAL.—Honorary Medical Officer. Must be duly qualified under the "Medical Act" of 1858. Applications and testimonials to Mr. C. Woodcock, on or before November 27. Election on December 12.

CHARING-CROSS HOSPITAL, WEST STRAND.—Surgeon-Dentist, who must be a Fellow or Member of the Royal College of Surgeons of England. Applications and testimonials to the Secretary, on or before November 29.

DERBY COUNTY LUNATIC ASYLUM.—Superintendent Physician. Applications and testimonials to Mr. John Barber, on or before November 28.

EDINBURGH ROYAL INFIRMARY.—General Superintendent. Applications and testimonials to Mr. Bell, Clerk to the Corporation, on or before December 1.

EVELINA HOSPITAL FOR SICK CHILDREN, SOUTHWARK-BRIDGE-ROAD, S E.—Medical Registrar. Candidates must possess a recognised qualification. Applications and testimonials to the Committee of Management, on or before November 23.

KENT AND CANTERBURY HOSPITAL.—House-Surgeon. Gentlemen applying for this appointment are required to possess qualifications in Medicine and Surgery. Applications and testimonials to Mr. T. Southee, Secretary, on or before November 24. The duties commence on January 1, 1872.

LINDSEY, LINCOLNSHIRE.—Medical Officer for the County Gaol and House of Correction. Candidates for this appointment must be duly qualified and registered. Applications and testimonials to the Deputy Clerk of the Peace, Lindsey, on or before November 18. The duties will commence about the end of March, 1872.

LIVERPOOL ROYAL INFIRMARY.—Physician. Must be F. or M.R.C.P.L., or a Graduate in Medicine of one of the following Universities—namely, Oxford, Cambridge, Dublin, Edinburgh, Glasgow, or London. Applications and testimonials to Mr. E. Gibbon, on or before December 1.

REETH UNION.—Medical Officer for the Muker District. Candidates are required to possess the qualifications prescribed by the General Orders of the Local Government Board. Applications and testimonials to Mr. James R. Tomlin, Richmond, Yorkshire, on or before December 1.

ST. MARY'S HOSPITAL AND DISPENSARY FOR WOMEN AND CHILDREN, QUAY-STREET, MANCHESTER.—Medical Officer for Out-patients. Must have Medical and Surgical qualifications. Applications and testimonials to Mr. J. Barber, on or before December 2.

SOUTH STAFFORDSHIRE GENERAL HOSPITAL, WOLVERHAMPTON.—Physician's Assistant. Candidates must be graduates in Medicine of a British University. Applications and testimonials to the Chairman of the Medical Committee, on or before November 27.

STOCKPORT INFIRMARY.—Assistant-Surgeon. Qualifications in Medicine and Surgery required. Applications and testimonials to the Honorary Secretary, on or before November 30.

SUSSEX COUNTY HOSPITAL, BRIGHTON.—Surgeon. Must be M.R.C.S.E. Edin. or Dub. The office of Assistant-Surgeon is also vacant; the qualifications required are the same as for the appointment of Surgeon. Applications and testimonials to Mr. A. Vesey, on or before December 6.

VICTORIA HOSPITAL FOR SICK CHILDREN, GOUGH HOUSE, QUEEN'S-ROAD WEST, CHELSEA.—House-Surgeon. Must possess at least one qualification to practise. Applications and testimonials to Mr. St. John H. Young, on or before November 27.

WANDSWORTH AND CLAPHAM UNION.—Medical Officer to the Workhouse and Infirmary. Candidates must be duly qualified and registered. Applications and testimonials to Mr. John Sanders, on or before November 27. Election on the 28th.

WESTHAMPNETT UNION.—Medical Officer for the Rumboldswyke District. Candidates must have both Medical and Surgical qualifications. Applications and testimonials to Mr. R. G. Raper, West-street, Chichester, on or before November 19.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Llything Union.—Mr. H. J. Horton has resigned the Eighth District; area 11,089; population 2590; salary £43 per annum.

Grantham Union.—Dr. Ferneley has resigned the Grantham District; area 11,834; population 9462; salary £96 per annum.

Hexham Union.—Mr. Thomas Stainthorpe has resigned the Western Division of the Third District; area 9952; population 731; salary £5 per annum.

Honiton Union.—The Eighth District is vacant; area 2130; population 331; salary £9 per annum.

APPOINTMENTS.

Fulham Union.—Frederick H. Alderson, M.R.C.S.E., L.S.A., to the Fifth District.

Glandford Brigg Union.—Robert Bruce Low, M.D. Edin., M.C. Edin., to the Mersingham District.

Goole Union.—Matthew Shirley, L.F.P. & S. Glasg., L.R.C.P. Edin., to the Swinefleet District.

Great Ouseburn Union.—Norman McCaskie, M.B. and C.M. Univ. Edin., to the Great Ouseburn District and the Workhouse.

Lutterworth Union.—William Sharples, M.R.C.S., L.S.A., to the Second District.

Pocklington Union.—Alfred Jackson, L.R.C.P. Edin., L.R.C.S. Edin., to the Second Pocklington District and the Workhouse.

Portsea Island Union.—William Johnston, M.D. Edin., L.R.C.S. Edin., to the Southsea District.

Wimborne and Cranborne Union.—Charles H. W. Parkinson, M.R.C.S., L.S.A., to the Second District and the Workhouse.

UNIVERSITY INTELLIGENCE.—CAMBRIDGE, NOVEMBER 10.—The report of the Board of Medical Studies, which recommended that candidates for the Third M.B. Examination be required on and after the Easter Term, 1872, to produce a certificate of having been clinical clerk for six months at least at a recognised Hospital; or of having, subsequently to the completion of his attendance on Hospital practice, attended to practical Medicine with special charge of patients, in a Hospital, Dispensary, or parochial union, under superintendence of a qualified Practitioner, unless he himself be duly qualified, and that Experimental Physics be added to the list of courses of lectures in Section 10 of Regulations for Degrees in Medicine, came on for discussion this afternoon in the Arts School. The first recommendation passed without opposition; but the proposal to include Experimental Physics in the course of lectures to be attended by Medical students as part of the requirements of keeping a Medical term was opposed by Dr. Paget, upon the ground that it required modification. He did not object to Medical students attending lectures on Experimental Physics, but objected to add it to the list of subjects, attendance upon a course of lectures being part of the requirements of a Medical term. It could not be called studying Medicine to attend a course of lectures on magnetism or botany, however desirable it might be that Medical students should have a knowledge of those subjects. He thought the time required for Medical study—four years—was the least possible period which could be allowed, and he doubted whether it was not too short. One could not maintain that attending lectures on Experimental Physics was studying Medicine, and unless the proposed regulation were modified that would be the effect. It would not be right for the University to introduce a regulation which might run the risk of external criticism as tending to make the University examinations for a degree in Medicine less stringent, and the time of study in effect shorter. They had a deserved reputation for their Medical degrees, and he should lament if any of their *prestige* was lost. He suggested that lectures on Experimental Physics should only be counted when at the same time attendance was given by the students to some of the other subjects named in the schedule more intimately connected with the study of Medicine. The Vice-Chancellor throught the proper plan would be to refer the second part of the report again to the consideration of the Board of Medical Studies, for it to make the alteration suggested by Dr. Paget. This course was assented to, and the first part of the report only was passed.

ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.—The next meeting will be held on Saturday, November 18, at 7.30 p.m., at the Scottish Corporation Hall, Crane-court, Fleet-street. Professor W. H. Corfield, Medical Officer of Health for Islington, and Mr. J. J. Skegg, Medical Officer of Health for St. Martin-in-the-Fields, will be balloted for as ordinary members. Dr. J. Mouat, Athenæum Club, Pall-mall, late Inspector of Prisons, Bengal, and Dr. A. Fergus, Glasgow, President of the Sanitary and Social Section of the Philosophical Society, will be balloted for as associated members. The President, Dr. R. Druitt, will deliver an address "On the Present Position of Medical Officers of Health; their Work and Prospects."

Miss Ellen P. Downing, a past student of the Ladies' Medical College, has passed the Arts Examination at Apothecaries' Hall, London.

We hear there are 599 matriculated Medical students in the University of Edinburgh at this date, of whom 209 are registered as first-year students.

Small-pox in Oxford.—In the past week there have been three new cases, and one death—unvaccinated. There are twenty-two cases under treatment.

Anti-Vaccinationists. — The Manchester Board of Guardians, on Thursday last, refused, very properly, to receive a deputation from a meeting held at Harparhey protesting against the enforcement of the Vaccination Act. The Guardians stated they had nothing to do but to enforce the law.

The Report on the Sanitary Condition of St. Mary, Islington, for October, 1871, states that the total number of deaths (263) during this month has been remarkably low—lower than in any October since the census of 1861 was taken, if due allowance be made for the increase of the population—and absolutely lower than that of any year since 1862, with the exception of 1864 with 216, and 1867 with 260 deaths. This small number is partly due to the fact that miasmatic diseases have caused only 58 deaths during the month, while in the same month of the last three years they caused 72, 98, and 96 deaths. Measles and scarlatina are on the increase as compared with last month, but the latter has not as yet assumed the serious proportions of an epidemic that it did in the October of 1869 and 1870. It is, however, necessary to point out that it is especially by contagion that these diseases spread. and that strict attention to the separation of persons attacked from healthy persons, and also of families where one member is attacked from other families (thus, children from families where one member is ill should not be sent to school, as they may convey the contagion, although unattacked themselves), and to the proper, and especially the thorough ventilation of sleeping- and living-rooms, are the great means by which their spread must be sought to be prevented; the use of disinfectants as auxiliary agents not being omitted. Diarrhœa has much abated, only fifteen deaths from it being recorded, as against eighty-five during the five weeks of September. Small-pox has only caused four deaths during the month, the smallest number recorded since October, 1870.

Examination Questions.—At the examinations on the 10th and 11th inst. for the Diploma of Membership of the Royal College of Surgeons, the following were the questions on Surgical Anatomy and the Principles and Practice of Surgery which were submitted to the ninety-seven candidates, viz.:—1. Describe the action of a ligature and of torsion in arresting hæmorrhage from a severed artery; and state what is the effect of a ligature upon an undivided artery as in an operation for aneurism, and how the continuity of the artery is permanently interrupted after the separation of the ligature. 2. Give the Surgical anatomy of the ulnar artery as far as the wrist, and describe the operation for its ligature in the middle of the forearm, indicating the precise relations of the vessel at the point at which it is tied. 3. Describe the symptoms, consequences, and treatment of chronic enlargement of the prostate gland. 4. Mention the different tissues and localities in which the formation of pus causes the greatest local pain and constitutional disturbance. State (giving examples) the circumstances that would induce you to open an abscess early, and those in which delay or non-interference would be preferable. 5. Describe the deformity produced by simple dislocation of the foot outwards at the ankle; mention the structures which are necessarily broken or lacerated in this accident; state the mode of reduction and the means you would have recourse to under circumstances of unusual difficulty. 6. Mention the various kinds of cataract; give the diagnostic characters of each, and state the usual conditions under which the different forms occur; and describe the operation of extraction. The following were the questions on the Principles and Practice of Medicine, for which there were forty-nine candidates, viz.:—"1. A day or two after exposure to cold, a patient is taken with feverishness, difficulty of breathing, and uneasiness at the chest. What are the different forms of disease which may probably be commencing, and how would you severally distinguish them? 2. What are the chief deposits which may be found in the urine, under what circumstances do they severally occur, and how would you recognise each form? 3. Mention the remedies which are commonly described as nervine tonics, and state in what cases you would use them, and the doses in which they may be given. Write a prescription for the exhibition of one of these medicines."

A Cottage Hospital is to be erected at Ledbury.

Fine for Illegally Using "M.D."—A complaint was recently heard before Sheriff Comrie Thomson, at Aberdeen, at the instance of John A. Forbes, chemist, West North-street, against John H. Boyd, 14, Marischal-street, to the effect that he had wilfully and falsely pretended to be a Doctor of Medicine. It was stated in the complaint that this had been done by means of the respondent advertising in an Aberdeen paper of October 7, and being entered in the "Aberdeen Directory" of 1871-2 as a Doctor, while he is not registered as such under the Medical Act of 1858, and is not recognised as such by law. The respondent failed to appear. The evidence of the witnesses examined went to show that the advertisement founded upon had been inserted by order of the respondent, and that with his knowledge he had been entered in the "Directory" as John H. Boyd, M.D. The Sheriff found the charge embodied in the complaint proven. He said it was impossible at any time to have much sympathy with anyone who committed such an offence against the law, and, in the present case, any sympathy which might have been felt was greatly lessened, if not altogether destroyed, by the open and daring manner in which the crime had been committed. He could do nothing less than impose a fine of £10, with £2 2s. of expenses; failing payment, forty days' imprisonment.

Conversazione of the Edinburgh Obstetrical Society.—The opening of the thirty-first session of this Society on the 8th inst. was inaugurated by a *conversazione* in its Hall, 5, St. Andrew's-square. The invitations issued by the President and Fellows included the names of the Practitioners in the city and county, and most of the Corresponding Fellows in Scotland. In addition to the Fellows of the Society present, we observed Professors Maclagan, Lister, Spence, Sanders, Balfour, etc.; Drs. Littlejohn, Thomas Keith, Dycer, J. Smith, Hogue, Black, Cadell, Inglis, Hislop, Orphoot, Roberts, John Duncan, Thomson, Wight, etc.; Messrs. Aytoun, Ainslie, Gardner, Gilman, Hepburn, J. W. Hogne, McKay, Nicol, Swanson, Tait, Wilson, Hilliard, Young, McGregor, etc.; and amongst those from a distance were—Drs. P. A. Young (Portobello), Fowler (Corstorphine), Brodie (Liberton), Hope (West Calder), Carmichael (Burntisland), Carruthers (Crimond), Fergussou (Peebles), Professor Wilson (Glasgow), Drs. Kerr, R.N. (Bonnyriggs), McArthur (Anstruther), Macfarlane (Polmont), Parker (Nova Scotia), Robertson (Lauder), Thomson (Inveresk), Thorburn (Loanhead), Turnbull (Coldstream), McLeod (Ben Rhydding), Ballantyne (Dalkeith), Forrest (Stirling), Monro (Glasgow), Black (Cockburnspath), Whiteford (Greenock), Laurence (Montrose), Brotherstone (Alloa), etc. The guests were received by the President, Dr. Charles Bell, who opened the proceedings by introducing Dr. Keiller to the meeting, as a former President of tho Society, who had been selected by the Council to deliver an address. The subject chosen by Dr. Keiller was the "Progress of Obstetrics," the time of the great subject, dwelling occasionally on some of the more important steps in the progress of Obstetrical Science. He also referred to the dangers the Accoucheur and Surgeon were occasionally exposed to in the exercise of their duties from actions being raised against them for malpractice; but time did not permit him entering upon the merits of the recent case at Stockton-on-Tees, in which he gave evidence for the defendant. Referring to the success of ovariotomy, he alluded in complimentary terms to the grand results of our Edinburgh operator, Dr. Thomas Keith, and, before concluding, paid a tribute of respect to the memory of Simpson—a name ever well received in this Society. On the motion of Professor Maclagan, seconded by Dr. Turnbull, of Coldstream, a cordial vote of thanks was awarded to Dr. Keiller for his interesting address. The company then adjourned to another room, where refreshments were provided, and instruments and preparations exhibited. Amongst the exhibitors connected with the Society were Professor Simpson, Dr. Keiller, Dr. Matthews Duncan, Dr. Macdonald, Dr. Young, Professor Inglis (Aberdeen), and Dr. Ritchie. Professors Sanders and Turner exhibited a series of preparations of injected uteri and placentæ of the lower animals. Mr. Archibald Young exhibited the utero-abdominal support and pessary of Dr. Charles Bell; a new midwifery forceps with one solid blade, by Dr. Hamilton, of Falkirk; Dr. Cappie's bayonet-jointed forceps with long and short handles; a new hysterotome by Dr. Coghill; Professor Inglis's short-handled forceps; Dr. Matthews Duncan's cephalotribe, and also his hollow sound and syringe for injecting the uterus, etc. Mr. Mackenzie exhibited Dr. Gordon's new forceps with locked handles and movable blades. Mr. Hilliard exhibited a variety of obstetrical instruments and apparatus. Mr. Gardner

exhibited Simpson's, Churchill's, Duncan's, Cappie's, Keiller's, Barnes's, Campbell's, Oldham's, Greenhalgh's, Murphy's, Blondell's, Robertson's, Graily Hewitt's, Davis's, Ramsbotham's, and Denman's forceps; Simpson's, Weiss's, Holmes's, Lee's perforators; Simpson's, Murphy's, Conquest's, Holmes's, Churchill's cranioclasts; and Simpson's, Duncan's, Barnes's, and Charles's cephalotribes, etc. After a very pleasant evening, the company separated about ten o'clock.

HEALTH OF SCOTLAND.—The deaths of 2476 persons were registered in the eight principal towns during the month of October, of whom 1186 were males and 1290 females. This is the greatest number recorded during any month of October since the Registration Act came into operation in 1855. Previous to this month the greatest number in October was in 1868, when 2298 deaths were registered. Allowing for increase of population, the present number is 199 above the average for the corresponding month of the last ten years. A comparison of the deaths registered in the eight principal towns shows that during October the annual rate of mortality was 16 deaths per 1000 persons in Aberdeen, 23 in Leith and in Perth, 28 in Edinburgh, 29 in Glasgow, 30 in Dundee, 31 in Greenock, and 32 in Paisley. Of the 2476 deaths registered, 1079, or 43 per cent., were of children under 5 years of age. In Perth, 28 per cent. of the persons who died were under 5 years of age; in Paisley, 34 per cent.; in Edinburgh, 35; in Dundee, 40; in Aberdeen, 43; in Leith, 44; in Greenock, 45; and in Glasgow, 49 per cent. The zymotic (epidemic and contagious) class of diseases proved fatal to 654 persons, thus constituting 26 per cent. of the mortality. This rate was greatly exceeded in Dundee (43·5 per cent.) from the prevalence of small-pox, and in a less degree from that of diarrhœa and fever; and in Leith (39·5 per cent.) from the prevalence of small-pox and scarlatina.

VARIOLA IN PREGNANCY.—In his report on the diseases prevalent in Paris during September, M. Besnier relates the case of a woman, aged 22, who was admitted into Lariboisière suffering from "coherent" variola. During the stage of desiccation she was delivered of a full-timed, healthy child, which did not exhibit on its body any trace of the disease. The patient, during her convalescence, suffered from numerous disseminated abscesses situated on all parts of her body, which obliged her to remain with her infant for more than a month in the ward, into which were admitted new cases of small-pox. The infant was vaccinated about a month after its birth with some of the same lymph which succeeded in all the other cases in which it was employed. In this infant, however, it failed, as did two other vaccinations subsequently practised also with good lymph. It is suggested that the fœtus may have been preserved from variola during its intra-uterine life by means of the maternal blood.—*Gaz. des Hôp.*, November 11.

COMPOSITION AND QUALITY OF THE METROPOLITAN WATERS IN OCTOBER, 1871.—The following are Dr. Letheby's returns to the Association of Medical Officers of Health:—

Names of Water Companies.	Total Solid Matter per Gallon.	Oxygen required by Organic Matter, &c.	Nitrogen.		Hardness.	
			As Nitrates &c.	As Ammonia.	Before Boiling.	After Boiling.
Thames Water Companies.	Grains.	Grains.	Grains.	Grains.	Degs.	Degs.
Grand Junction	18·33	0·179	0·112	0·003	13·9	3·5
West Middlesex	17·27	0·041	0·112	0·000	13·6	3·3
Southwark & Vauxhall	18·63	0·173	0·110	0·005	14·0	3·6
Chelsea	17·63	0·151	0·130	0·004	13·8	3·4
Lambeth	—	—	—	—	—	—
Other Companies.						
Kent	27·89	0·005	0·197	0·000	20·0	5·6
New River	17·73	0·022	0·137	0·000	13·7	3·1
East London	18·33	0·035	0·149	0·001	14·3	3·8

Note.—The amount of oxygen required to oxidise the organic matter, nitrites, etc., is determined by a standard solution of permanganate of potash acting for three hours; and in the case of the metropolitan waters the quantity of organic matter is about eight times the amount of oxygen required by it.

The water was found to be clear and nearly colourless in all cases but the following, when it was turbid—viz., in those of the Chelsea and the Grand Junction Companies.

The average quantity of water supplied daily to the metropolis during the preceding month was, according to the returns of the Water Companies to the Association of Medical Officers of Health, 114,354,087 gallons; and the number of houses supplied was 490,332. This is at the rate of 35·3 gals. per head of the population daily.

DIPHTHERIA.—For the last three years we have had, each year, to report the progress of this deadly affection. It is called here by such names as *nao sang tse*, *heu pi*, *heu yung*, all signifying more or less malignant sorethroat, or narrowing to suffocation of the air-passages. The former is the popular expression for it. It is said to be a new disease, and to have been known only for the last fifty years. It seems almost entirely to be confined to Peking. It is said not to be known even at Tien-tsin. No cases are reported from the Hospitals of Central and Southern China. If this be so, what reason can be assigned for it? Do the same conditions not exist in other parts of China? Most of the adult cases seen early have recovered; almost all seen after the fourth or fifth day have died. All classes and ages are affected; but it proves speedily fatal among children, some of whom are reported to have died after one day's illness. Its insidious and almost painless character makes it dangerous. Pain, which drives us all to seek for help, is a less prominent symptom than difficult deglutition. The Chinese, so generally indifferent to everything, are less prompt in applying for relief in such instances, probably from the fact that they are rather subject to throat affections. Their universal remedy is counter-irritation by chafing with copper cash, pinching the skin between the fore fingerand thumb, and sometimes by lancing the tonsils with their long finger-nails. Lunar caustic, a gargle of chloride of calcium, nourishing diet, fomentations, dilute and concentrated muriatic and carbolic acids, have been found serviceable.—*Report of the Peking Hospital, by Dr. John Dudgeon.*

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

R. E. Power, Dartmoor.—Write to Dr. Farr, Somerset House. We do not think the returns are yet published.

A Constant Reader.—Try a well-regulated hydropathic institution, such as that at Ben Rhydding or Forres.

M.D.—The title of Doctor of Medicine was first bestowed upon William Gordenio, who received it from the College of Asti, in 1329.

E. C.—Liebig's beef-tea is described in his "Researches on the Chemistry of Food," translated by W. Gregory (London, Taylor and Walton, 1847), page 122, *et seq.* The illustrious author proves, by scientific research, what empirical observation had taught cooks—viz., the importance of the soluble constituents of muscular fibre, both to the palate, the stomach, and the system at large. He thus describes the method of making beef-tea:—"When one pound of lean beef, free from fat, and separated from the bones and finely chopped, is mixed with its own weight of cold water, slowly heated to boiling, and the liquid, after boiling briskly for a minute or two, is strained through a towel—for the coagulated albumen and the fibrine now become hard and horny—we obtain an equal weight of the most aromatic soup, of such strength as cannot be obtained even by boiling for hours from a piece of flesh. When mixed with salt and the other usual additions by which soup is usually seasoned, and tinged somewhat darker by means of roasted onions or burnt sugar, it forms the very best soup which can in any way be prepared from one pound of flesh." Liebig goes on to describe the extract, prepared by evaporating the above, which has since obtained so much celebrity as "Liebig's Extract." There is no doubt but that the "extract of meat" is the most valuable and costly ingredient in soup; but as little doubt, for practical purposes, that the albumen which is strained off coagulated, the gelatine which is extracted from the bony and tendinous parts, and the finer and tenderer parts of the muscular fibre ought to be added to make a perfect soup. We would call E. C.'s attention to the following passage, in which the illustrious Liebig enounces a proposition that cannot be overturned:—"It is obvious that if flesh employed as food is again to become flesh in the body, if it is to retain the power of reproducing itself in its original condition, none of the constituents of raw flesh ought to be withdrawn from it during its preparation for food."—*Op. cit.*, p. 122.

INFANT MORTALITY.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The death-rate among infants is proved from statistics to be large, and, consequently, it should be the aim of those entrusted with the care of the health of the community to employ all legitimate means in their power to lessen this enormous loss. My object in addressing you is to draw the attention of those interested in this matter to a point which I consider greatly neglected. Among the working-classes a great proportion of the women are attended during labour by old women, whose only qualification (if it be such) for undertaking the responsible duties of an accoucheur is their age. Their presumption is at times so great that they are even bold enough to prescribe for the various ailments of the little sufferer, and after death to give the parents the cause of the sad termination! I shall give you a short account of the case which induced me to write this note, and I may safely suppose that many of your readers have met with similar instances in the course of their practice.

This morning I was consulted by a woman who stated that she "altered" during the second, third, and fourth months of pregnancy. In inquiring into her previous history I ascertained that she had been pregnant seven times. Of these one had been a miscarriage. It was only when she was

enceinte for the fourth time that she began to suffer from this peculiarity, and I may state that it is not a monthly, but a continuous flow, with only a few free days during the three months; this has occurred with all her subsequent pregnancies. Of the six children born alive, three have died. Of the latter two were attended by a Medical Practitioner, and the third by the woman "who brought the child home." I was also informed that those treated by the Doctor "died of measles and lumps in the belly"; and that by the midwife "from bull-hives and want of gums when only a few days old"! According to the woman's statement, it seems the Registrar was satisfied with this cause of death when it was given in by the father. Now, I am of opinion that had this midwife been taken to task when this occurred, it would have deterred her as well as others from playing at Doctor for the future. For aught we know many other infants in her estimation may have died of "bull-hives and want of gums," but would have been saved from an untimely death had proper Medical treatment been employed. Apologising for having encroached on so much of your valuable space, and trusting that efficient means may, through your influence, be enforced to suppress this evil, I am, &c.,

November 13. AN UNQUALIFIED ASSISTANT.

Philologicus.—These points refer to custom and taste, which have been settled for many centuries, and which have quite as much in their favour as the innovations have. The whole of Western Europe used to represent Greek characters by certain Roman ones: the thing was conventional, and we do not see the use of a change. If, nevertheless, it be judged more "philological" to write "Herakles" than "Hercules," or "ekzema" than "eczema," be it so. "It pleases she, and don't hurt he." But with regard to such a word as "upodermic," instead of "hypodermic," it is a barbarism. The "y" is the living representative of the Greek Υ—the same letter, in fact; and anyone who will turn to a French grammar may see that it is called *ygrec*, showing its identity with the Greek Υ. Every word in which Υ occurred in Greek was represented in Latin from time immemorial by Y. Thus, when the mediæval Churchmen transcribed the Greek Δόξα *en ὑψίστοις*, they wrote it *Doxa in hysistis*. The long ū in Latin is the representative of the Greek diphthong ου, as in the well-known word *Heautontimorūmenos*. We therefore plead still for the words "hypogastric," "hypodermic," and the rest.

A *Wine Drinker* sends us a quotation from *Ridley and Co.'s Wine and Spirit Trade Circular*, November 11, 1871, relative to some "learned Doctor, who was accredited to a Xeres firm with full power to exert his skill for their benefit in making wine by his own process." It is said that "he had been duly put in communication with the grapes, and it is understood that he superintended the making of 100 butts," which proved a failure so absolute as to be useless even for distillation. It was supposed that the learned Doctor was to transmute low-class sherry into old Solera Amontillado. We believe that the search for the philosopher's stone, so as to get gold without industry, was not more useless and pernicious to humanity than are attempts to substitute chemical tinkering, for the careful selection of plant, well-cultivated vineyard, warm sun, and most watchful skilful care in gathering, pressing, tending, and maturing the genuine grape-juice, which is necessary to make good wine. As is shoddy to good broadcloth, so are these miserable imitations to good wine.

"PROFESSIONAL ETIQUETTE IN BAYSWATER."

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I observe that certain gentlemen in Bayswater complain that a *confrère* has attracted (or endeavoured to do so), by means of a prospectus, some of their patients to himself, and that on the prospectus appear only the names of the Surgeon and secretary to the "Society," which provides medicine and attendance to members for 10s. per annum. Now, what are we to think of the "Medical etiquette" in another part of London, as shown in the enclosed two advertisements? In "Bayswater etiquette," the Surgeon of the Society will attend patients for 10s. a year; in the other case the Surgeon will attend patients for *nothing at all*, and, according to the advertisement, he absolutely does attend, on these terms, 1000 weekly. To come nearer home, what are we to think of the "Westbourne-grove Provident Dispensary," whose prospectus was, I believe, sent to me? The terms of this Society are very moderate—something between the 10s. and nothing per annum. I am, &c., A BAYSWATER M.D.

* The following are the advertisements referred to by our correspondent:—

"National Institution for Diseases of the Skin, Gray's-inn-road and Mitre-street. Physician, Dr. Barr Meadows, 49, Dover-street, Piccadilly. Average number of patients under treatment, 1000 weekly. Free letters are available for necessitous applicants.—Thomas Robinson, Hon. Sec."

"Western Dispensary for Diseases of the Skin, 17, Duke-street, Manchester-square. Instituted 1851. Mr. Hunt attends every morning, from 9 till 10, and on Saturdays from 3 to 4 also."

M.D. calls our attention to the report of an inquest, held at Stratford-upon-Avon, upon the body of a boy of 8, who had both legs torn off by a ploughing machine, and sank from exhaustion after amputation of the stumps. "M.D." calls attention to a practice adopted by Mr. Le Sage, the Surgeon to the Union, who deposed as follows:—

"I found the right foot entirely separated from the leg, about four inches above the ankle, and the left foot was severed with the exception of the muscles of the calf of the leg. Deceased was much exhausted. I had a consultation with Mr. Rice, and we considered amputation necessary. Every possible effort was used to keep deceased alive, by stimulants, heat, etc., and he was wrapped in a sheepskin—Mr. Bruce having slaughtered an animal on purpose to provide one, and the deceased was put in it as it was, reeking from the carcase. Death was caused by the great shock to the system."

This remedy is an unusual one in this country, but it has the sanction of the highest authority and antiquity. It is commended by Baron Larrey, in his "Chirurgie Militaire," and was put in practice, with excellent effect, in the case of Marshal Lannes, Duc de Montebello, after a severe injury met with in the French invasion of the Peninsula. It is like wrapping a patient in cotton-wool, *plus* warmth and moisture; and some people believe that a degree of "vitality" may adhere to the skin of the recently killed animal. This may or may not be true; but if not true, is a very old error: *Vide* case of King David and Abishag; Copeland's Dictionary—On Young People sleeping with the Old; The Popular Practice of ripping up a Live Kitten or Puppy and applying it to Ulcers and Abscesses, etc.

URTICARIA.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Sidney Smith, Swift, or Lionel Beale—*non mi ricordo* which—has ably pointed out the diuretic effect of the bag-pipe on the Scotchman. The scraping of slate-pencil, the sight of a snake, the smell of onions, the taste of physic, and the receipt of Christmas bills, sensibly annoy the majority of mankind.

James I. could not endure the sight of a drawn sword; coincidently, Rizzio was killed at the feet of Queen Mary when pregnant with him. A cat concealed in a room has been known to produce a feeling of agonising tremor in a person who has not perceived it by any one sense, and has been in no other way informed of its presence. Equally unpleasant is that instantaneous serous infiltration of the papillæ of the skin occurring in nervous susceptible subjects, commonly termed nettle-rash, caused either by the stings of insects or plants, local irritation, or by mental emotion, influenced by certain conditions of body at particular seasons—for instance, infantile dentition, else dyspepsia, dysmenorrhœa, pregnancy, or lactation. These tingling, transient, erythematous red-and-white wheals may directly be induced by indulgence in shell-fish (mussels), cucumbers, pickles, pork-sausages, pepper, tea, almonds, and certain fruits, or by taking such medicines as copaiba, turpentine, chloral hydrate, or quinine. Cold, heat of the fire, the warmth of bedclothes, or indulgence in wine will develope this peculiar cuticular hyperæmia, which, associated with vomiting and diarrhœa, will produce such febrile disturbance, amounting to delirium in certain cases, as to lead to a faulty diagnosis of scarlet fever, measles, or variola. The disease suggests its own treatment; the advice of *Punch* to people about to get married—"Don't." And the old proverb of the burnt child avoiding the fire should caution those susceptible as to diet and hygiene.

Not long ago, at a pleasant dinner party, after talking over Sir Charles Dilke's vulgarity, the doleful prospect of doing away with bands and messes, the disgraceful treatment of Medical witnesses by barristers, specially in the late Irish trial, Denne talked cricket, and Lyon said hunting was the sport of kings, the image of war, without its guilt and five-and-twenty per cent. of its danger.

Mrs. Rotten Rowe, a fine woman, whose white skin, jet-black hair, splendid bust, and magnificent diamond ear-rings created admiration in the men, envy in the women, became so absorbed in the fascinating conversation of a certain Medical editor (who was enlarging on the appalling world-wide circulation of his journal) as inadvertently to take strawberry cream. Horror! instantaneously her face became the colour of her cherry-coloured silk dress, for out burst the NETTLE-RASH.

Traveller.—1. No. 2. "YASVA" is one of the local maladies of Siberia. It is an epidemic which suddenly makes its appearance, one knows not whence or how. The person attacked is at once struck helpless, and a swelling about the size of a walnut appears on the side of the head, or some other part of the body. Unless assistance is at once afforded, death almost immediately follows. Men are not often attacked by this strange disease, but horses and cattle are very subject to it.

Disease and Death.—Dr. Lankester, in his Report of the Health of St. James's, Westminster, for 1870, after enumerating the various causes of disease which are preventible, says—

"I might have extended these general remarks, but I hope I have said enough to show you the nature of one set of enemies with which we have to deal. When we consider their insidious nature, their extensive existence, and the ease with which they are diffused, we may, perhaps, congratulate ourselves that they are not more destructive than they are. At the same time it should be recollected that our knowledge of the laws of the nature of these diseases is much more accurate than formerly, and that we now know enough to show us that more active and intelligent sanitary legislation would be of the greatest possible benefit. What we want is imperial and compulsory Acts of Parliament for the removal of the sources of disease and death, and not local and permissive measures. At the same time, it is quite useless to pass Acts of Parliament unless people are prepared to employ them and act under them. This can only be done by teaching the people, both high and low, the laws by which health and strength may be secured, and disease prevented from laying low the youth and strength of the country. It is not for me to show you, but it is for everyone to calculate, the wealth of health, and the enormous loss sustained by preventible disease and death."

Infant Mortality from June to September, 1871.—In the Registrar-General's Quarterly Report, it is stated—

"The 121,236 deaths registered from all causes in England and Wales during last quarter included 37,367 or 30·8 per cent. of infants under 1 year of age, and 23,536 or 19·4 per cent. of persons aged 60 years and upwards. In the corresponding quarter of 1870 these proportions were almost identical—30·9 and 19·4 per cent. respectively. Infant mortality, measured by the proportion of deaths of children under 1 year, to births registered, was 20·0 per cent. in 1870, and 19·4 in the third quarter of the present year. Infant mortality calculated in this manner was 27·6 per cent. in the seventeen largest English towns, 23·4 in the entire urban population, and only 16·0 in the remaining or rural districts. Among the seventeen largest towns, the proportion of deaths under 1 to births registered ranged from 16·9 and 18·8 per cent. in Wolverhampton and Portsmouth, to 35·1 in Leeds, 35·2 in Liverpool, 37·3 in Manchester, and 46·2 in Leicester. This difference between the average proportion of 16 per cent. among the ten millions of persons living in the rural districts, and the 46 per cent. shown in the borough of Leicester, is so remarkable that an exhaustive inquiry into the cause of this terrible infant mortality seemed imperatively called for. The inhabitants of Leicester, and of other large towns, should know the cause of this waste of life, the reason why their infants more readily fall victims to diarrhœa and other infantile complaints."

COMMUNICATIONS have been received from—

Dr. J. Williams; Mr. R. S. Hill; Mr. Ly Neve Foster; Mr. Kitto; Mr. Metcalfe Johnson; Mr. Edward Wilson; Dr. Woodward; Mr. Teevan; Dr. R. T. Massy; Mr. Bostock; Nettle-rash; Dr. Beach; Dr. D. W. Davies; Mr. G. Wilmot; Dr. Dudfield; Mr. C. Finn; Mr. B. Neal; Mr. Karkeek; Mr. Bradford; Mr. Tombs; M.D.; Mr. Charteas White; A Bayswater M.D.; An Unqualified Assistant; Mr. Lawson; Mr. Wilton; Mr. R. E. Powell; A Constant Reader; Mr. I. M. Williams; Dr. Ritchie; Mr. J. Horaocks; Mr. Woodcock; Dr. Balfour; Dr. F. R. Wilson; Mr. Bryden; Dr. Brackenridge; Dr. James Allan; Mr. B. Walrond; Dr. J. Williams (Malvern); Mr. J. Chatto; Dr. F. R. Hogg.

BOOKS RECEIVED—

Ruppaner's Contributions to Practical Laryngoscopy—Cutter's Contribution to the Treatment of the Versions and Flexions of the Unimpregnated Uterus—Reynolds's Lectures on the Clinical Uses of Electricity—Bennet on the Treatment of Pulmonary Consumption by Hygiene, Climate, and Medicine—Liveing on the Treatment of Skin Diseases—Murray on Smoking—Grainger Stewart on Bright's Disease of the Kidney, 2nd edition—Hamilton on Fractures and Dislocations—Hartshorne's Essentials of Practical Medicine—Madden on Puerperal Mania.

PERIODICALS AND NEWSPAPERS RECEIVED—

Nature—Pharmaceutical Journal—English Mechanic—New York Medical Journal—Philadelphia Medical Times—American Journal of Medical Sciences, October—L'Union Médicale—Medical Press and Circular—Dublin Quarterly Journal of Medical Science.

APPOINTMENTS FOR THE WEEK.

November 18. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; King's, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Association of Medical Officers of Health, 7½ p.m. Dr. R. Druitt (President), "On the Present Position of Medical Officers of Health: their Work and Prospects."

20. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Anthropological Institute, 8 p.m. Meeting.

Medical Society of London, 8 p.m. Dr. Prosser James, "On Ozena." Adjourned Discussion on Dr. Alfred Carpenter's Paper "On Two Cases of Muscular Anæsthesia." Casual Communication by Dr. Wiltshire. Mr. Spencer Watson, "A Case of Skin-grafting under Continuous Irrigation, by Mr. J. D. Harris (Shrewsbury)."

21. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Pathological Society, 8 p.m. The following Specimens will be exhibited:—Dr. Dickinson, "Intracranial Aneurism the Cause of Sudden Death." Dr. Baümler, "Aneurism of the Innominate Artery, compressing the Pneumogastric Nerve." Dr. Hawkes, "Horse-shoe Kidney." Mr. Spencer Watson, "Ulcer of the Lower Eyelid, removed by Dr. Swift Walker." Mr. H. Arnott, "Results of Excision of the Elbow-joint."

22. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 2 p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Society of Arts, 8 p.m. Mr. Hyde Clarke, "On the Present State of the Through Railway Communication to India."

23. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; West London, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

24. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

Clinical Society, 8½ p.m. Papers by Dr. Anstie and Dr. J. W. Ogle. Dr. Glover. "A Case of Uncomplicated Aphasia." Dr. Moxon, "On Symptoms of Cranial Tumours destroying Nerves cured by Iodide of Potassium." Dr. Habershon, "On Cases of Heart Disease."

Quekett Microscopical Club, 8 p.m. Mr. M. C. Cooke, M.A., "On the Tremelloid Uredines."

VITAL STATISTICS OF LONDON.

Week ending Saturday, November 11, 1871.

BIRTHS.

Births of Boys, 1091; Girls, 1115; Total, 2206.
Average of 10 corresponding weeks, 1861-70, 2078·4.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	705	660	1365
Average of the ten years 1861-70	714·4	683·4	1397·8
Average corrected to increased population	...	...	1538
Deaths of people aged 90 and upwards	...	...	...

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561189	4	6	3	2	10	...	10	...	4
North ...	751668	25	8	7	1	10	2	8	...	6
Central ...	333887	...	3	2	1	4	1	4	...	2
East	638928	8	16	3	...	8	1	6	5	5
South	966132	17	9	17	1	10	2	4	2	4
Total	3251804	54	42	32	5	42	6	32	7	21

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·567 in.
Mean temperature	39·2°
Highest point of thermometer	50·0°
Lowest point of thermometer	26·4°
Mean dew-point temperature	34·8°
General direction of wind	Variable.
Whole amount of rain in the week	0·03 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, November 11, 1871, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1871.*	Persons to an Acre. (1871.)	Births Registered during the week ending Nov. 11.	Deaths Registered during the week ending Nov. 11.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3263872	41·8	2206	1365	50·0	26·4	39·2	4·00	0·03	0·08
Portsmouth ...	113450	11·9	76	36	55·4	28·8	40·9	4·94	0·00	0·00
Norwich ...	80533	10·8	47	38	47·5	30·0	38·6	3·66	0·03	0·08
Bristol	183298	39·1	152	76	...	...	...	...	...	...
Wolverhampton ...	68476	20·2	43	47	49·0	27·4	38·4	3·55	0·02	0·05
Birmingham ...	344980	44·1	295	133	49·8	30·3	39·0	3·89	0·03	0·08
Leicester	95882	30·0	64	38	48·7	27·7	37·5	3·06	0·18	0·46
Nottingham ...	86929	43·6	54	41	53·3	29·4	40·0	4·44	0·14	0·36
Liverpool	494649	96·8	364	254	49·3	35·0	41·2	5·11	0·34	0·86
Manchester ...	356099	79·4	241	168	49·0	29·0	39·7	4·28	0·40	1·02
Salford	125422	34·3	81	65	49·5	24·2	39·0	3·89	0·43	1·09
Bradford	146987	22·3	143	54	...	...	...	...	...	...
Leeds	260657	12·1	200	105	49·0	32·0	40·8	4·88	0·30	0·76
Sheffield	241507	10·6	187	133	49·5	29·0	38·7	3·72	0·38	0·97
Hull	122266	34·3	81	63	51·0	28·0	40·5	4·72	0·39	0·99
Sunderland ...	98797	29·9	50	69	...	...	...	...	...	...
Newcastle-on-Tyne	128677	24·1	115	61	48·0	33·0	39·0	3·89	0·33	0·84
Edinburgh	201728	45·6	123	112	46·7	31·0	38·3	3·50	0·10	0·25
Glasgow	479227	94·7	280	258	...	...	...	...	...	...
Dublin (City, etc.)	310565	31·9	158	139	50·0	26·0	38·8	3·77	0·10	0·25
Total of 20 Towns in United Kingd'm	7204001	33·8	4960	3255	55·4	24·2	39·4	4·11	0·20	0·51

At the Royal Observatory, Greenwich, the mean reading of the barometer in the week was 29·57 in. The highest was 29·97 in. on Sunday morning, and the lowest 29·29 in. on Wednesday morning.

* The figures in this column are the unrevised numbers enumerated in April last, raised to the middle of the year by adding 1-40th of the rate of increase which prevailed between 1861 and 1871. As the population of Dublin and its suburbs showed a decline between the Censuses of 1861 and 1871, the enumerated number in April last has been inserted for that city, the population being assumed to be now stationary.

FLUID MEAT.

A New Preparation containing all the constituents of Lean Meat in a soluble form.

Messrs. DARBY and GOSDEN respectfully call the attention of the Profession to this important and valuable improvement in a soluble animal food. The necessity for such a food in the treatment of diseases and during convalescence is fully recognised by the Profession, and even by the public, as is clearly manifested in the ready acceptance and extensive employment of Liebig's Extractum Carnis.

Whilst the public are unable to appreciate the fact, yet physiologists are well aware of the objection to an extract of meat consisting, for the most part, of the elements of nutrition in a state of retrograde metamorphosis: taking from animal flesh what is soluble in cold water, subjecting the solution to a boiling-heat and evaporation—*i.e.*, making an extract—excludes all the fibrine, albumen, and gelatine, the very substances which give meat its superiority as an article of diet over all others. These constituents are those most needed to supply the waste from wear and tear, and to restore the tissues after the rapid destruction caused by fevers, inflammations, and other exhausting diseases.

Baron Liebig himself recognises the inefficiency of his "Extractum Carnis." He has remarked ("Lancet," 1865)—"Were it possible to furnish the market at a reasonable price with a preparation of meat containing in itself the albuminous together with the extractive principles, such a preparation would have to be preferred to the Extractum Carnis, for it would contain the nutrient constituents of meat."

This is exactly what is accomplished in our FLUID MEAT. Fibrine, albumen, gelatine, together with all the saline constituents and extractive matters, exist as in meat and its tissues, but that they are brought into a soluble state—*i.e.*, the first step in stomach-digestion—by means of pepsin and hydrochloric acid, an artificial gastric juice. It will therefore be obvious how well adapted this Fluid Meat must be for all cases of weakened digestion, irritable stomach, insufficient nutrition, and convalescence from diseases which, like fever, consume the various tissues. It must also be equally acceptable as a concentrated form of food to persons in health, when subjected, by exercise or otherwise, to temporary exhaustion and wear and tear.

We may state that, before making our preparation thus public, it has been submitted to trial in a variety of cases—some of them of a very exceptional character—in each of which most satisfactory results of its value as a nutritive and restorative agent have been obtained.

For further information, see Pamphlet on "Fluid Meat," published by Messrs. J. & A. Churchill, New Burlington-street.

FLUID MEAT is sold in Jars at 10s. 6d., 5s. 6d., & 3s. each, by

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ORIGINAL LECTURES.

CLINICAL LECTURE ON PERIOSTITIS OF THE TEMPORAL BONE.

By JONATHAN HUTCHINSON, F.R.C.S.,
Surgeon to the London Hospital, and Lecturer on Surgery at the Medical School.

GENTLEMEN,—A few months ago an old man, aged 64 years, was admitted under my care into Mellish Ward, on account of various symptoms connected with his ears. He was extremely deaf, and it was difficult on that account to get a good account from him of the history of his illness. It appeared that his symptoms began about two months before admission, with pain in the left ear. This pain was attributed by him to "a cold." There was no history of other disease or injury likely to lead to earache or discharge from the ear. The pain persisted until about three weeks before admission, when he first noticed a discharge from the meatus. The earache on the left side then subsided, but about a week before admission he was attacked by a similar pain in the right ear, and this still remained. When first seen, besides the deafness, which was such that he could not hear a watch when in contact with either ear, the following symptoms were noticed:—There was a copious, fetid, brownish, purulent discharge from his left ear. There was no marked tenderness on pressing the region of the temporal bone on this side, if we excepted the articulation of the lower jaw, where he flinched slightly. On the right side, however, considerable pain was caused by very slight pressure over the seat of the articulation, and around it for some distance in all directions, especially over the front part of the mastoid process, just behind the ascending ramus of the jaw. The movements of his lower jaw were much impeded, and he could open his mouth only just enough to put out his tongue; it was quite impossible to examine the back of his mouth and throat. He had paresis of the left facial nerve; he could not shut the left eye so well as the right; and when the other facial muscles were in action the face was decidedly drawn to the right side. The man was perfectly conscious, but "stupid," answered questions slowly, and performed muscular acts tardily; he seemed inclined to become drowsy when not interfered with. He was not feverish, his temperature being only 99° F., and there was no history of rigors.

The symptoms presented by this man pointed to abscess from periostitis of the temporal bones. The abscess on the left side had broken, but probably another was forming on the right side, and accounted for the extreme tenderness over the corresponding temporal bone. Periostitis of the temporal bone presents several points of difference from periostitis elsewhere; and it is, moreover, a disease of very grave import to the patient. I think, therefore, that we may with profit study the subject, as illustrated by the case before us, a little more in detail. You will do well to bear in mind that the temporal bone, unlike the bones of the trunk, is not covered on its opposite surfaces by the same periosteal membrane, the dura mater not being continuous with the periosteum covering the extra-cranial surfaces of the bone. You are well aware that necrosis and exfoliation of the portion of bone beneath an inflamed periosteum is a very common occurrence in the long bones; but necrosis of the temporal bone is comparatively rare. We may have periostitis of this bone accompanied by considerable suppuration, and yet followed by complete recovery without the death of any portion of bone. This result is probably to be ascribed to the copious supply of blood which the temporal, in common with the other cranial bones, obtains through its double nutritive membrane, and in addition from the lining membrane of the meatus and tympanum. If, as is commonly the case, the inflammation begins in the external periosteum or in the lining membrane of the meatus, it may extend through the bone until, sooner or later, it reaches the dura mater, the internal periosteum. When this occurs, it will probably cause death. This fatal extension of the disease does not usually occur rapidly, many weeks often intervening between the first symptoms and the death. It does not, however, by any means follow that because a patient has periostitis of his temporal bone he will therefore have meningitis; for, as I have before mentioned, cases not unfrequently happen in which recovery takes place after the formation of an abscess in connexion with circumscribed inflammation of the external periosteum. Possibly we may attribute this comparative immunity of the inner surface of the bone to the absence of continuity between the dura mater and the external periosteum. In the patient above referred to, there was reason to fear, from the deafness and weakness of the facial nerve, that the disease had already extended at least into the tympanum, if not to the internal ear and the cranial surface of the bone.

With regard to *cause*, it seems probable that exposure to cold is frequently the starting-point of the disease. The exposure to cold wind is followed by severe persistent earache and the other symptoms which have been mentioned.

The treatment of periostitis of the temporal bone resolves itself mainly into the possibility or impossibility of opening the abscesses which form in connexion with the inflamed periosteum. If there be a collection of matter over the mastoid process, it can, of course, be readily enough got rid of by a free incision; but if the abscess point in the meatus, and especially in some part of the pharynx, then opening it may be difficult, or even impossible.

In our patient, the impediment to opening the mouth was quite enough to prevent any examination of the back of the throat.

ORIGINAL COMMUNICATIONS.

FATAL PENETRATING WOUNDS OF ABDOMEN AND THORAX INFLICTED BY AN ASSASSIN ON AN INDIAN JUDGE.

By J. FAYRER, M.D., C.S.I.,
Professor of Surgery, and Senior Surgeon, Medical College Hospital, Calcutta.

AT about 11.15 a.m. on September 20, 1871, I was suddenly summoned to see the Hon. J. P. N., Officiating Chief Justice, who had been stabbed, on entering the High Court, by an assassin, who rushed on him, and wounded him with a knife in the back and abdomen. He had been taken to a neighbouring house, and Dr. W. Palmer, of the General Hospital, who happened to be passing, had been requested to see him. I found the patient lying on a couch in a lower room; he was pale, agitated, and exhausted; his respiration was hurried, and his pulse was quick and feeble; his hands were cold, and bedewed with moisture. His clothes had been partially removed; those that remained were stained with blood, and other blood-stained clothes were about him. Dr. Palmer informed me that Mr. N. had been stabbed in the abdomen and thorax, but that he had not yet ascertained the depth of the wounds. There had been, it was said, considerable loss of blood; his appearance confirmed that statement, and it also evinced the shock of a severe injury.

On examining the wounds, I found one directly through the umbilicus, passing into the abdominal cavity; but there was not, nor had there been, any protrusion of the contents of the abdomen. Blood was trickling freely from the wound, but there was no appearance of any alvine fluid with it. The wound was three-limbed (Y), evidently having been caused by first stabbing and then withdrawing the weapon with a wrench of the wrist. It was a little more than an inch in length. A compress and bandage had been applied. I introduced a silver-wire suture to prevent gaping and protrusion, and over it a fold of lint and a bandage soaked in carbolic acid lotion. There was a slight abrasion on the inner and palmar aspect of two fingers of one hand, as though, in attempting to seize the knife, they had been grazed. There was also a wound entering the posterior border of the left axilla, a little more than an inch from its margin, and penetrating deeply downwards, inwards, and forwards, through the muscles and between the ribs, one of which could be felt to descend into the thorax. It did not appear to me that the lung had been wounded, though the pleural cavity was certainly opened. The depth of penetration beyond this could not, of course, be then ascertained. The bleeding from this wound was trifling, and easily arrested by slight pressure. The wound was of the same shape as that in the abdomen; a suture was similarly applied, with dressing and a bandage. Respiratory sounds were audible all over the left side of the thorax. No air came from the wound. There was no hæmoptysis. At one time I imagined I heard a somewhat cavernous sound; this may have been due to the hernia of the stomach through the diaphragm, discovered after death. The result proved that no pneumothorax had occurred. He was very restless, tossing about, complaining much of cold, notwithstanding the heat of the weather. His face was pinched and anxious, and the lips pallid. There was constant thirst; nausea and retching soon

supervened, and continued more or less until the end. Shortly he began to complain of a sense of distension of the bladder, and an intense desire to empty it; he was unable to do so voluntarily. A catheter was passed, and only a few ounces of clear urine withdrawn. He was very much depressed, but stimulants were very sparingly administered, with the view of not interfering with the formation of clots; iced water and gallic acid were administered. Towards 1 p.m., when restlessness, pain, and distressing irritability of the stomach increased, opium was given, and repeated at intervals of two or three hours with the greatest relief to his suffering. He retained consciousness until about midnight, and ceased to breathe at 1.20 a.m. of September 21, or about fourteen hours and a half from the time when the wound was inflicted. He sank from exhaustion and shock. The retching, vomiting, and desire to void urine continued throughout, but they were much allayed, as was the distressing restlessness, by the opiates.(a) Towards midnight his pulse gradually failed, he became exhausted and unconscious, and sank at 1.20 a.m.

The post-mortem examination was conducted (in my unavoidable absence) by Dr. J. Ewart, in the presence of Dr. Woodford, Police Surgeon, and Dr. W. Palmer, of the General Hospital. The report is appended.

M. N. was a robust, muscular, and very powerful man in the prime of health and life, aged 52, when he was mortally wounded. The assassin was a Mahomedan, of 40 to 45 years of age, of middle size, but vigorous and powerful frame. He was seized on the spot, has been tried, and capitally sentenced. As yet his motives for committing the crime are undiscovered. He is probably from the North-west of India, and the knife he used was a long sharp-pointed weapon, with a white bone or ivory handle, bound with brass. The blade was very sharp, and at both edges near the point (which was slightly broken—probably against the spinal column), triangular in shape, and about a foot in length—just such a knife as one sees in the Punjaub and North-west of India. Throughout the treatment of the case I received most valuable aid from Professor N. Chevers, Dr. J. Ewart, and Dr. W. Palmer.

Dr. Joseph Ewart, Surgeon Bengal Army, made the following statement with regard to the post-mortem examination:—"In company with Dr. Woodford and Dr. Palmer, I examined the body of the late Chief Justice N., at the house of Messrs. Thacker, Spink, and Co., at 6 a.m., on September 21, or four hours and forty minutes after death. The body was found to be well nourished, the general appearance being that of a powerfully built and well-made man of average height. Exactly at the umbilicus there was a wound, of a somewhat triangular shape, and about an inch in its longest diameter. Its direction, for about a couple of inches through the abdominal wall, was obliquely downwards and backwards, and then almost straight backwards towards the spinal column. The external opening of this wound was partially filled by coagulum, and the dressings covering the same were soaked in semi-fluid dark-coloured blood. On following this wound inwards, it was found to pass through a fold of the small intestine, severing fully three-fourths of its calibre. The contents of the bowel had escaped in quantity through this opening into the cavity of the peritoneum. The wound then passed through several folds of the mesentery, thus wounding several mesenteric vessels, but without injuring the corresponding divisions of the intestines. Considerable bleeding had taken place from these wounded vessels, and upwards of a pound of fluid and coagulated blood was found extravasated, and gravitating towards and pressing upon the bladder. The peritoneum covering the intestines, omentum, and mesentery was of a vividly pink hue, and in the first stage of acute inflammation. No lymph had been exuded, sufficient time to allow of its formation not having elapsed between the occurrence of the injuries aforesaid and death. About an inch and a half from the posterior fold of the left arm-pit, and on a level with the same, posteriorly, another wound was observed a couple of inches long, also of a triangular form, with one of its angles extended, apparently from the withdrawal of the weapon employed by the assassin. This wound passed downwards, forwards, and inwards, eventually penetrating the walls of the chest, and entering the pleural cavity between the seventh and eighth ribs, about four inches anterior to their attachment to the vertebræ. On opening the chest, it was found that the weapon had grazed and indented the inferior margin of the seventh rib, dividing the intercostal artery, and actually incised cleanly the upper part of the eighth rib to the extent of fully three-fourths of its substance, the remainder having been fractured transversely. The broken end of the rib next the spine was split longitudinally. On further prosecuting a search for the course of this wound, it was discovered that it passed through the diaphragm, without, however, injuring the pulmonary pleura or lung, and without damaging any of the abdominal organs. The opening in the diaphragm was tightly plugged by a portion of omentum with a knuckle of the left division of the stomach, which were lying in the pleural cavity. Both these protrusions were intensely congested, the peritoneum covering them being in the primary stage of inflammation. There was a very small quantity of bloody serum in the cavity of the pleura. The stomach, kidneys, liver, spleen, pancreas, heart, lungs, and the muscular and nervous systems were perfectly healthy. Death was caused by a combination of mortal injuries—(1) A large wound of the intestine with escape of its contents into the cavity of the peritoneum, and consequent peritonitis (first stage); (2) hæmorrhage from several wounded mesenteric vessels; (3) traumatic hernia of the omentum and stomach through a wounded diaphragm; (4) the severe shock of the general nervous system sustained by these serious injuries to vitally important parts."

Calcutta.

(a) The vomiting and peculiarly pinched expression of face were no doubt due to the diaphragmatic wound and hernia of the stomach. The urgent desire to micturate is accounted for by pressure of the blood-clot on the bladder.

AUTOPSY OF A CENTENARIAN.

By R. TUTHILL MASSY, M.D.

Death has at length overtaken Thomas Geerau, at his reputed age of 105 years and 6 months, but not before he desired death—bearing out that belief of Hufeland, Foderé, Barhez, and others, that old people have the power by will to prolong life, making man the more exalted and accountable. It is now four years since I first prescribed for Geeran during an attack of pleurisy in the left side, and although at that time I had but a slight hope of his recovery, yet he expressed no wish for relief by death. Recently it was otherwise; three weeks before his last illness he said, "I wish God would take me away." On October 21 he was taken to the Brighton Workhouse Infirmary in a state of insensibility, from which he rallied for a few days, when he again became unconscious and continued so until his death on the following Saturday, October 28, at 8.30 p.m. The immediate cause of death was "serous apoplexy," according to the opinions of Drs. Ross and Richards. Not until about three hours before his burial on Wednesday, November 1, did the event become known to me, when I instantly drove to the Infirmary and was fortunate in meeting Surgeon Richards, who, with his usual courtesy, gave his consent for a post-mortem examination, and helped in procuring through the master that of Geeran's widow. Thus armed I entered the dead-house; in it lay three bodies, one that of Geeran, in a black coffin, with his name written in white chalk on the cover. The Infirmary porter removed the lid and raised the clean white shroud. Geeran looked calm, and as if still in the act of breathing his last. His hair and beard have recently become scanty; the old sabre-cut could be distinctly felt along the left parietal bone; but time would not allow me to examine the brain. His gums were hard and toothless, the last (left eye-tooth) having fallen out about two years since, and, as he could not find it, he believed he must have swallowed it.

The body appeared well proportioned, thin; skin clean and white, without any appearance of hair (so different from Old Parr); the abdomen sunken and changing into a greenish tinge; limbs strong and extended; skin adhering closely to the sternum and ribs; pectoral muscles were of a bright pink; bony chest, elastic, the knife running readily through the cartilages. Seeing this, the old porter remarked—"Your knife,(a) sir, cuts ribs better than skin." The ensiform cartilage was elastic and prominent. There was some difficulty in raising the breast-bone, on account of close attachments by dry cellular tissue to the anterior mediastinum. After a very careful dissection through a thick membrane, the heart was found firmly encased in the pericardium—the result of some former inflammation; the lung on the left side adhered to the ribs and pericardium. The heart appeared small and felt firm in texture; valves healthy; columnæ carneæ dense and of a bright red. The pulmonary artery had a thick bluish-black clot of crassamentum

(a) Not having a dissecting-knife with me, nor any preparation, I borrowed a pocket-knife from the head nurse and a common darning-needle threaded with pack-twine, which for the emergency answered well.

occupying its circumference from the semilunar valves; no osseous formation visible or to be felt; lungs were of the dark mottled grey of old age, otherwise healthy and elastic.

Surgeon Richards arrived during my examination of the liver, for we both felt most anxious to see its appearance, on account of the old man's reputed love for his morning glass of rum(b) during the last seventy or eighty years. The liver was not of the usual hepatic colour; in this case it presented a deep purple-black, with a smooth shining surface, to the touch more elastic, and, if anything, slightly enlarged. It did not cut like ordinary liver, for all the structure and the vessels gave me more the idea of the black carbonised lung of the coal-miner, except that here the colour was due to coal-black blood, thick as black-currant jelly, which oozed out. The thin edge of the liver had a dull leaden hue, due to the change since death, now the fourth day. The gall-bladder contained some dark-coloured bile. The duodenum and pyloric end of the stomach felt hard and irregular; I therefore passed the knife through their coats, and found the structure changed to the extent of three or four inches into carcinoma, with one ulcerated patch. This discovery led me at once to forgive that craving for stimulants for which he was so much blamed during his lifetime, even by those who were themselves contributors. There were no traces of fat in any part. The stomach contained from six to eight ounces of a coffee-coloured fluid. His diet while in the Infirmary consisted of beef-tea, milk, and farinaceous food, with one gill of gin a day.

The genito-urinary organs were healthy, and, it is said on good evidence, exhibited functional activity up to two years ago. Old Thomas Parr, at 105, did penance in a white sheet in Aldersbury Church for an illicit amour with fair Catherine Milton, on which the poet Taylor wrote—

"Should all that so offend such penance do,
Oh! what a price would linen rise unto!"

Had we not made this examination, it would have been concluded that death resulted from old age or serous effusion on the brain, caused by a worn-out constitution. But here we are led to think that length of years did not lead to his death so much as force of will; for is it not remarkable that, with two such diseases as those of the pericardium and stomach, neither appeared to contribute to that end?—more remarkable still, that he went out in all weathers, ascended the heights around Brighton, only occasionally stopping to rest, had no marked difficulty in breathing, had a remarkably quick blue eye, without a trace of the *arcus senilis*, and no ossific deposit in his cartilages! He was exceedingly fond of reading history and translations from the ancient classical authors; from "Xenophon" he could speak on the fortunes of "the ten thousand." He had all the punctuality of a soldier to the day and hour within a mile of his lodgings, and was truthful.

A new edition of his eventful life is in the press, and will be out the end of this month(c). He enlisted in Waterford; was present at the capture of Seringapatam, in 1799; at Corunna, in 1809, he received two gunshot wounds below the left knee; at Vittoria, in 1813, a severe sabre cut in the head. He escaped through Waterloo, and entered Paris with the victorious army; was discharged, invalided, from the 71st Highlanders, in 1819, with 114 days' pay, *but without any pension!*

Brighton.

MIDWIFERY NOTES FROM BRITISH KAFFRARIA, SOUTH AFRICA.

By CHARLES JAMES EGAN, A.B., M.R.C.S.E.,
Assistant-Surgeon to Guy's Hospital, and District Surgeon, King William Town, Kaffraria.

As your paper appears always to be open to correspondence from abroad, you may perhaps feel willing to publish the following notes of midwifery practice in the frontier part of the colony of the Cape of Good Hope.

I will commence by stating that midwifery and the diseases of women and children form the most important branches of Medical practice in this place; and, judging from my own experience in this colony, I should say that any Medical Practitioner intending to settle in a colony should make these branches of the Profession his especial study.

From my practice in this place I have brought together the following notes and statistics of 400 cases of midwifery attended by me among the European population, thinking they may be interesting to some of your readers, and may be compared with similar statistics of home practice. But in such comparison it must be borne in mind that many of these cases were not seen by me until the labour was far advanced, and by the time I arrived the fate of mother and child was hanging in a very doubtful balance. Not being called in to see a case until labour has lasted over twenty-four hours; having to ride twenty or thirty miles in a temperature of 80° in the shade and 120° in the sun; having no nurse or assistance of any kind, except a neighbour called in for the occasion, make a midwifery operation of any kind difficult, and throw a great responsibility on the Medical attendant. Yet in practice here one must be prepared for all such emergencies.

Nature of case.	Multiparæ.	Primiparæ.	Total.	Deaths.			
				Multiparæ.		Primiparæ.	
				Mother.	Child.	Mother.	Child.
Natural labour	220	76	296	—	2	1	2
Lingering „	3	5	8	—	—	—	—
Flooding	15	6	21	—	—	—	—
Convulsion, hysterical	—	1	1	—	—	—	—
do. apoplectic	1	2	3	—	—	1	—
Placenta prævia	2	—	2	—	2	—	—
Partial placenta prævia	2	1	3	—	—	—	—
Retained placenta	8	4	12	—	—	—	—
Twins	8	3	11	—	2	—	—
Triplets	1	—	1	—	1	—	—
Breech presentation	6	3	9	—	—	1	—
Cross births	8	2	10	2	3	1	1
Forceps	7	11	18	—	—	1	2
Craniotomy	—	2	2	—	—	1	2
Induction premature labour	3	—	3	—	1	—	—
	284	116	400	2	11	6	7

Total number of cases	400
Deaths of mothers	8
Deaths of children	18

Some of the cases placed in this table as natural labour should perhaps more properly be classed as complicated labour; for, although the labour itself was short and natural, it was followed by pelvic cellulitis, phlegmasia dolens, or fever. Thus, the death of a primipara in the class of natural labour was caused by puerperal peritonitis. The details of the case were as follows:—Mrs. F., a fat, florid woman, aged 24 years, taken in labour of her first child. Vertex presentation; first stage lasted about six hours; second stage four hours, delayed by inertia; ergot was administered, and also an enema of salt-and-water; a male child born alive; placenta expelled in about ten minutes; discharge natural. This lady was very feverish for two days previous to her labour, suffering from a severe attack of influenza. In the morning, ten hours after her confinement, she appeared well, but the pulse was very quick—120. There was no tenderness over the abdomen; the lochia natural. On the succeeding day there was high fever—pulse 140; she was suffering from a slight attack of bronchitis, great tenderness over the lower part of the abdomen, and suppression of the lochia. From this day regular puerperal peritonitis set in, terminating in death on the eleventh day. The case of death in a primipara, after the use of forceps (see table), should also be placed in the class of complicated labour. Here death resulted from an attack of typhoid fever. The following are short notes of the case. Mrs. J., aged 21 years, in labour of her first child; vertex presentation. First stage lasted twenty-five hours; second stage, three hours. During the first hour of the second stage the head entered the pelvis, but the pains gradually became weak, and no advance was made. Ergot of rye was administered, and an enema of salt-and-water, but without any good effect. Forceps was applied, and a live male child extracted. She apparently progressed favourably until the third day, when fever came on; pulse 100; no tenderness over the womb; and the discharge remained natural. Two days after, diarrhœa came on, with tenderness and crepitus in the right iliac region. On the fifteenth day, rose-coloured maculæ appeared over the chest and abdomen, and death occurred on the twenty-first day after delivery, from congestion

(b) A manufacturer of rum, from Jamaica, has informed me that rum prepared from the scum off the boiling sugar-cane and that from the drainings of the casks containing the molasses, mixed, has the reputation of "preserving the liver" in that hot climate. "The oldest inhabitants are rum-drinkers."

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of the lungs. This lady was the only person in the family that was affected by the fever, although all were exposed to the same source of the disease. The fever poison was, in my opinion, derived from the water used for household purposes. The water was taken from a large tank, excavated in the back yard, built round with single brick and plaster. About eight feet from this tank there was a large cesspool beneath a privy, which had become so full that the level of the fæces collected in it was two feet higher than the water in the tank. The soil between the two was of a sandy, porous nature, and I consider there must have been a percolation of matter from the cesspool into the tank. The tank was filled with rain-water, collected off a galvanised iron roof. The water looked beautifully clear, but, on being tested with permanganate of potash, it showed the presence of a considerable quantity of organic matter. What surprised me here was that no other person in the house became infected with the fever. But I think this can be explained. So long as the persons using the water had sufficient out-door exercise and fresh air, they were able to eliminate the poison; but when Mrs. J. was unable to go about so much as usual, and then was laid up in bed, and being from the puerperal state more susceptible to the action of the poison, it developed itself. This water has not been used for household purposes since, and no other cases of typhoid fever have appeared.

I have accurately noted the duration of labour in 160 of these cases, and I find that the average was nine hours. Of these, thirty-seven were primiparæ, in whom the average was thirteen and a half hours; six were delivered by forceps, and one by turning. The longest case lasted thirty-six hours, the shortest three hours. In the remaining 123 cases of multiparæ, I find the average to be seven and a half hours; two of these were delivered by forceps, and one by turning. The longest of this class lasted twenty-four hours, and the shortest only one hour.

I have seldom met with rigidity of the os uteri as a cause of lingering labour, and none which did not readily yield to a few doses of tartar emetic; but I frequently have met with a cause of delay in that period of the labour just between the first and second stage—and that is, the anterior lip of the os uteri coming down in front of the child's head, forming a fold between the child's head and the os pubis, all the rest of the os being fully dilated. In these cases I have passed two fingers of the right hand into the vagina, and in the interval between the pains pressing the lip of the os upwards, and keeping it with my fingers in that position during a pain; and I have found this practice most successful, the head coming down, and the lip of the os receding above it. I have not met with any notice of this in any standard works on midwifery; but if it has been mentioned by occasional writers in the Medical journals, you must excuse my ignorance, and make allowance for colonial life. In the class of lingering labour I have placed two cases which should belong to cases of obstructed labour—viz., one in which the distended bladder was protruded external to the vulva by the child's head. The other case was one in which a pedunculated polypus of the uterus entered the pelvis, and prevented the passage of the head.

I have remarked that there is generally a very free discharge of blood in childbirth in this country, probably owing to the great heat; but I have only placed under the head of flooding those cases in which the hæmorrhage threatened life. I invariably follow the practice taught by Dr. McClintock (who was Master of the Dublin Lying-in Infirmary when I was a student), of keeping steady pressure of the hand on the uterus, after the birth of the child, until the placenta is expelled, and not putting on a binder until the third stage is completed. In some cases I have used injections of vinegar and water into the womb, and in others the tinctura ferri muriatis. In one case in which I used the latter, slight metritis followed. In three different cases in which, at previous confinements, not attended by me, dangerous hæmorrhage had occurred, I administered three-grain doses of gallic acid, twice daily, for six weeks previous to parturition, and in all these cases no more than ordinary discharge took place after the birth of the child. Whether this was the result of the use of gallic acid, or from more care being taken in making pressure over the uterus than was done on previous occasions, I leave for others to form their own opinion; but I certainly intend to try the same practice in any other case of the kind that may come under my care. To obviate as much as possible the constipating effects of the gallic acid, I had it made into pills with the extract of rhubarb.

The induction of premature labour was performed on account of deformity of the pelvis. I twice performed the operation on the same person. At the commencement of the eighth month of gestation the pelvis was barely three inches in the antero-posterior diameter of the brim, the sacrum being greatly curved, and the promontory protruding into the brim. The first time I operated by perforating the membranes and evacuating the liquor amnii; labour came on in forty-eight hours, the child presenting with the breech. The second time I only separated the membranes from the uterus with a sound; labour came on in about eighty hours, the child also presenting with the breech. This woman had had four previous labours, in all of which the child had to be taken away with instruments. After her first confinement, which occurred in London, the Doctor attending her recommended her to have premature labour brought on.

I will finish this letter by giving details of a case which, though unusual, is not unknown:—

Mrs. B., aged about 35 years, at the time when she supposed herself to be two months pregnant, suffered from what she supposed to be a miscarriage—lumps and clots coming from her, with much hæmorrhage. From this time she had not any menstrual discharge; the abdomen increasing in size, though very slowly, and a tumour being perceptible. This state lasted for seven months, when she was taken with labour-pains and profuse hæmorrhage. I was then called in to see her. I found the abdomen about the size of the fifth month of pregnancy, of an ovoid form, the long diameter of the ovoid lying across the pelvis. The pains were regular and strong—like labour-pains. On making a vaginal examination, I found the os uteri partially dilated, and a presentation resembling placenta prævia. The hæmorrhage was so profuse that I plugged the vagina, and administered ten-grain doses of secalis cornuti every half-hour. After the third dose, a placenta was expelled of the same size and appearance as it would be at the natural termination of pregnancy, with this exception, that where the funis should have been there was only a withered membrane, and on the surface of the placenta were numerous hydatiform tumours, like large white grapes, full of clear fluid. This must have been a case of separation of the embryo from the placenta at the second month of gestation, the placenta not coming away, but remaining attached to the uterus, and increasing to the normal size it should be of at the termination of pregnancy, and at that period being naturally expelled.

Should you consider these few notes on midwifery practice among the European population of any value, I can follow this communication by some cases taken from the native population.

King William Town.

REPORTS OF HOSPITAL PRACTICE

IN

MEDICINE AND SURGERY.

ST. GEORGE'S HOSPITAL.

At a recent visit to the operating theatre of this Hospital, we saw, besides operations for harelip and nævus of the scalp, three cases of epithelioma treated by excision. These were of considerable interest—the first as arising from a well-ascertained blow, and growing rapidly, in a young man; the second as recurring for the second time in the situation of the original disease, without glandular affection; and the third as also being due to irritation upon a part much exposed to undue pressure from deformity.

EPITHELIOMA OF FACE.

(Under the care of Mr. POLLOCK.)

A young man, of good general health; he received a blow on the left side of his nose, from a cricket-ball, six or seven weeks before, and about three weeks later, on applying to Mr. Pollock, there was noticed in this situation a small vascular-looking nævoid growth. A fortnight later it had still a nævoid aspect, but presented also a suspicious appearance of malignancy. He was admitted into the Hospital, and in a day or two suffered from a slight attack of erysipelas of the face; the small tumour partly sloughed away, and there was left an oval-shaped warty excrescence, tuberculated on its surface and dark in colour. This was seized with forceps, and dissected away wide of the disease. The edges of the wound were brought together by means of the continuous suture, and covered with collodion. Mr. Pollock, alluding to the possibility of its recurrence, said that such was much more likely to be the case in a young than in an old person. If it returned, he should apply some strong escharotic, such as chloride of zinc, to it. Mr. Pollock recom-

mended the continuous suture in wounds of the face, as they are less likely to be followed by scars if so treated.

EPITHELIOMA OF SCALP.

(Under the care of Mr. POLLOCK.)

This growth was different in appearance, but similar in structure, to the first case. It was seated on the top and side of the head, was of the size of a small fist, and irregularly nodulated and ulcerated on the surface. It projected from the level of the surrounding parts, and was of a reddish colour. An epithelial growth had been removed from the same situation twice previously. The second operation was performed in January, 1867, and the first only a short time before the second. It was now excised by an incision through the healthy parts wide of the diseased tissues, and one or two suspicious tubercles, which could be felt in the skin on one side of the large mass, were dissected out. It was expected before the operation that considerable hæmorrhage would follow the removal of so large a tumour from the scalp, and that some trouble was to be expected in controlling the hæmorrhage, from the numerous vessels which anastomose on the scalp, and which were supplying the tumour. This, however, was not the case, and the edges of the wound were brought together without delay by means of needles and twisted sutures. This was not done with the hope of getting immediate union—for the needles would require to be soon removed, owing to the pressure they were exerting on the edges of the wound—but with the intention of controlling hæmorrhage should there be a tendency towards bleeding during or after recovery from the effects of chloroform.

EPITHELIOMA ON THE SOLE OF THE FOOT.

(Under the care of Mr. PICK.)

This was a red, granulated, fleshy-looking growth, the size of a large walnut, along the outer edge of the sole of the foot, associated with talipes equino-varus, in an elderly man. It was removed by dissecting it, with the skin around it, off from the fascia beneath. Mr. Pick remarked that in all probability the constant irritation from pressure had been the cause of the disease; for, as the patient was deformed by talipes, the portion of the foot on which it occurred was that which received the weight and pressure of the body in walking. Should the disease recur, amputation would be the treatment to resort to.

Mr. Pollock also operated on two other cases. One a hare-lip, associated with cleft palate, both hard and soft. The operation was performed without chloroform. Mr. Pollock stated his objection to operating on cases of cleft palate before the third or fourth year, because, as children are very intolerant of loss of blood, the quantity (even though very small) lost at the operation might be attended with fatal consequences.

The other case was a nævus, the size of a cherry, in the course of the parietal suture of an infant. This Mr. Pollock tied, after transfixing the base of the tumour by means of two needles passed at right angles to each other. Mr. Pollock has never known any ill-consequences follow from ligaturing a nævus in the neighbourhood of or over the fontanelles.

INFIRMARY FOR EPILEPSY AND PARALYSIS.

ON NEURO-SYPHILITIC AFFECTIONS.

(Cases under the care of Dr. ALTHAUS.)

(*Continued from page* 617.)

Case 2.—*Recent Syphilitic Paraplegia.*

A PAPER-STAINER, aged 32, had a chancre three years ago, and secondary symptoms affecting the skin and fauces at intervals. He was first seen on May 17, 1869, when he was suffering from complete paraplegia, which had come on rather suddenly about ten days previously. He had been apparently well, when he began one evening to complain of sensations of "pins and needles" in the feet; next morning he felt numbness in the lower extremities, and staggered in walking. As the day wore on he got worse, and towards evening was perfectly helpless. He was carried into the consulting-room of the Infirmary, being quite unable to move his legs. There was complete anæsthesia from the waist downwards; the bladder and rectum were not affected. The paralysed muscles responded well to both the induced and continuous current. The legs were much colder than the arms. There was a slight degree of ptosis of the left eyelid, and incomplete palsy of the rectus externus of the same eye. This patient emitted a most disagreeable smell from the surface of his body, and this was quite as bad when the patient's back was turned as when one faced him. It was not the peculiar "poor-man's smell" which is so often noticed in out-patients of Hospitals, and which arises chiefly from filthy shirts and underclothing, nor was it the well-known unpleasant smell which is owing to foulness of the stomach; but it was a smell *sui generis*. Ordered gr. xv. of potass. iod. thrice daily.

May 24.—Patient reports himself somewhat better; the numbness is not so great, and he can move his legs a little when he is sitting on a chair. Gr. xx. of potass. iod. thrice daily.

31st.—Patient takes the iodide well. Can stand when supported by one person's arm; moves his legs more freely.

August 2.—The iodide has been continued without ever disagreeing. He can now walk pretty well for about a mile with the aid of a stick; anæsthesia completely gone.

October 18.—Patient presents himself, apparently quite well. The smell has completely disappeared. Discharged.

This is one of a class of cases showing that *in recent cases of syphilitic paraplegia large doses of potassic iodide are sufficient for a cure.*

Case 3.—*Syphilitic Paraplegia of Three Years' Duration.*

A cabinet-maker, aged 39, married, of wretched appearance and sallow complexion, applied at the Infirmary on February 27, 1871, complaining of inability to walk. It appeared that he had long suffered from shooting pains in the head and limbs, a feeling of faintness, and weak sight. A twelvemonth ago he occasionally lost his sight completely for a few hours, after which it would return. He is deaf in the right ear. At the commencement of 1868 he began to suffer from "pins and needles" in the feet, and gradually lost power over the lower extremities. There had never been complete paralysis; the patient could turn in bed, and walked slowly and in a jerky manner with the aid of a stick and another person's arm. He cannot stand with his eyes closed for more than a few seconds, finds it difficult to put his foot on a chair, and has scarcely any command over the ankle-joint. There is difficulty of micturition and defæcation. The patient, who seems to be a truthful and religious man, denies having had any sexual relations out of wedlock, and says he had never had any sore on the penis. His wife, who accompanies him, has the appearance and bearing of a woman of the town, and has a copper-coloured eruption on the forehead and neck, and swollen cervical glands. On being questioned, she complains of a "nasty discharge from the womb," which she has had for a long time. Patient was ordered potassic iodide, in ten-grain doses ter die, and a tablespoonful of cod-liver oil twice a day.

March 6.—Feels rather better in himself, but is still very poorly on his feet. Dose of potassic iodide increased to fifteen grains.

13th.—Much the same as before. To take twenty grains of the iodic salt thrice daily.

April 3.—Symptoms of iodism; the dose is reduced to ten grains ter die. There being no improvement, the constant galvanic current was ordered to be applied to the spine three times a week.

June 26.—Patient, who lives at a considerable distance from the Infirmary, has only been able to attend once a week for the application of galvanism. The general aspect of the case remains unchanged, although considerable doses of the iodic salt have been taken for four months. Patient ceased attendance.

This is one of a class of cases showing that *in syphilitic paraplegia of long standing, iodide of potassium produces little if any benefit.*

Case 4.—*Neuro-Syphilis of Nineteen Years' Standing.*

A carpenter, aged 54, a very intelligent man, applied at the Infirmary on April 1, 1870. He had had a chancre in 1851, followed by rash and sorethroat. Three months had scarcely elapsed after the primary affection when cerebral symptoms began to make their appearance. He lost his memory to a great extent, had difficulty in speaking, and gradually became very weak in his legs. He applied at a general Hospital, and, after two months' treatment, was apparently quite recovered. Two years afterwards he had several convulsive fits, in which he lost his consciousness; and some years later he was out of his mind for a few days, and very violent. He is a total abstainer, but occasionally feels now as if he were drunk and would fall; but he can by an effort rouse himself, "without going off." His speech is now tolerably distinct, although articulation seems troublesome; his memory is better than it was ten years ago; he feels no diminution of his intellectual capacity; he has slight ptosis of the left eyelid, and numbness in the third and little-finger of the right hand. He applied at the Infirmary chiefly on account of his walking so badly—indeed, he walked like a man suffering from locomotor

ataxy. As it appeared that the man had already taken large quantities of mercury and potassic iodide, no medicine was given. The constant current was applied continuously to the spine, and intermittently to the nerves of the legs. After twenty applications the patient walked very much better than before, and ceased attendance.

This is one of a class of cases showing that *in syphilitic paraplegia of long standing the constant galvanic current is an excellent remedy, which should always be employed where iodide of potassium fails to do good.*

Case 5.—Syphilitic Affection of Cerebral Nerves.

A shoemaker, aged 35, had for the last three years suffered from "venereal." He now (May 8, 1871) complains chiefly of drooping of the right eyelid, and the rectus internus of the same eye appeared to be paralysed. Nocturnal headaches were likewise complained of. Potassic iodide was given in ten-grain doses, and the constant current was applied to the levator palpebræ superioris and rectus. After a few weeks of this treatment the patient was apparently quite well. That the ocular muscles were beneficially affected by the constant current, and not so much, if at all, by the iodide, became clear from the circumstance that there was immediate improvement after each application, and that no progress was made in the interval between two applications.

It is of importance that in cases of this kind *the constant current should be used early*, as when ptosis has existed for many months or years it often resists treatment which would almost certainly have cured it in the commencement of the affection.

On analysing the symptoms of neuro-syphilis, we cannot experience any real difficulty to bring them into accordance with the teachings of recent physiological pathology. During the last ten years we have evidently been too much under the influence of the writings of Engelsted, Gros, and Lanceraux, who, in a number of cases of fatal neuro-syphilis, did not discover any anatomical lesions; from which it was concluded that neuro-syphilis was probably always a merely functional disease. We are surprised to find that even so recent a writer as Dr. Beyer (*New York Medical Journal*, 1870) admits this now completely untenable view. Indeed, it may be fairly said that we may always discover structural changes in the nervous centres of syphilitic persons who have died with striking nervous symptoms, if we only know how to look for them. It appears from the observations of Virchow, Moxon, Heubner, and others that too little attention has been given to the examination of the cerebral arteries. On the other hand, it would plainly be a mistake to ascribe *all* nervous sufferings of syphilitic patients to coarse structural lesions. Some symptoms, although apparently formidable, disappear so rapidly—with or without treatment—that they must be looked upon as owing to temporary vascular disturbance within the cranium—viz., sudden changes in the diameter of the bloodvessels, and consequent variations in the amount of blood contained in them. Slight serous effusions, the absorption of which under proper treatment is easily effected, probably occur likewise. But where the symptoms are of slow growth, and an exceedingly gradual change in the physical and mental constitution of the patient is brought about, the pathological lesion is most probably *external or internal pachymeningitis*, which is most frequently found in autopsies. We may fairly assume that the severe headache from which so many syphilitic patients suffer is referable to such inflammation. It is found that either purulent, or sanguineous, or caseous exudation-products accumulate between the tabula vitrea and the dura mater (external pachymeningitis); or that the dura mater, arachnoid, and pia mater coalesce amongst each other and with the surface of the brain, forming thick grey fibrous callosities (internal pachymeningitis). Such formations necessarily cause pressure on both nerves and arteries in the neighbourhood of which they occur. If nerves are thus compressed they lose their function, and may gradually become atrophied. The coats of arteries coursing between these exudation-products undergo degeneration—the width of the bloodvessels is diminished, and at last complete occlusion occurs by thrombosis. Whether plugging of arteries also occurs spontaneously without previous meningitis, is at present not settled. Other pathological processes which may give rise to nervous disturbance are, gummatous tumours of the cerebral substance, and osteo-periostitis of the bones of the skull, chiefly on their inner surface; but such lesions are far more rare than those previously described. A succession of apoplectic seizures can only be explained by thrombosis in consequence of multiple circumscribed disease of the cerebral arteries, the direct result of which is softening of the corresponding district of cerebral matter. When the patient recovers for a time without special treatment, the improvement is due to the establishment of collateral circulation in the brain, which is becoming gradually satisfied with a less abundant and more circuitously yielded supply of blood.

Dr. Althaus believes that the constant galvanic current acts beneficially in neuro-syphilis, not so much by repairing the damage done to individual bloodvessels by thrombosis as by powerfully promoting collateral cerebral circulation, whereby the progress of softening is prevented, the nutrition of already softened matter improved, and thus function gradually restored, either completely or partially. Potassic iodide cannot do this; it may be able to neutralise in, or eliminate from, the system all or most of the syphilitic poison, which causes the arterial disease that in its turn gives rise to softening and hemiplegia; but it cannot cure the softening, where this has proceeded to any considerable extent. This is the reason why the constant galvanic current must be looked upon as the necessary complement of potassic iodide in the treatment of most forms of neuro-syphilis.

(To be continued.)

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Medical Times and Gazette.

SATURDAY, NOVEMBER 25, 1871.

SANITARY ORGANISATION.

When the Royal Sanitary Commission recommended, in their Report, that steps should be taken to "consolidate the present fragmentary and confused sanitary legislation," they were only pointing to what had long been a crying evil; but everyone rejoiced that the urgent and imperative necessity for reform in that direction had at last been given voice by so high and weighty a body as a Royal Commission. And still more lively was the satisfaction felt when the first actual step towards carrying out the recommendations of the Commission was taken by the passing of an Act, "for constituting a Local Government Board, and vesting therein certain functions of the Secretary of State and Privy Council concerning the public health and Local Government, together with the powers and duties of the Poor-law Board."

We have so repeatedly had to point out in these pages the difficulties with which Medical Officers of Health had to contend, the various, and but too often conflicting, authorities under whom they had to act, the confused and fragmentary Acts by which those authorities were appointed, and the uncertainties that attended attempts to set them in action, that we need not now dwell on the immense advantage of having a great central authority, such as is the new "Local Government Board," which combines into one all the various authorities which had hitherto looked after the Public Health, the Relief of the Poor, and Local Government. The need, and the

largeness of the concentration of powers thus gained, cannot be better pointed out than by quoting a few words from the paper, which we elsewhere publish, read by the President of the Association of Medical Officers of Health at their last meeting. Describing the new Act, to which we have referred, Dr. Druitt said—"The Poor-law Board, *eo nomine*, is abolished, so is the Medical Department of the Privy Council. All the powers and duties of the Secretary of State relating to registration, public health, local Government, drainage, sanitary matters, baths and washhouses, public improvements, towns' improvements, artisans' and labourers' dwellings, and local taxation, and all the powers and duties of the Privy Council relating to vaccination, and the prevention of disease, are made over to this new Local Government Board." This is a very important and valuable commencement of a reform which, as Dr. Druitt observes, should be extended, according to the recommendation of the Royal Sanitary Commission, "to the smallest areas of authority." Anyone who has happily had no experience of the annoyances and bitter vexations too often arising out of the present state of sanitary legislation, and who is in a state of blissful ignorance of its imperfections, will find them very clearly set forth by Dr. Druitt; but the most valuable part of his able and excellent paper is that which deals with the reforms needed in the organisation of sanitary districts and local health authorities. The Royal Sanitary Commission recommends that there shall be "one local health authority in every district, and not more than one; and that every local authority shall have a Medical Officer of Health, and it is suggested that the Poor-law Medical Officer shall be that Medical Officer of Health in rural districts; and that every such officer should have the power of an Inspector of Nuisances." Dr. Druitt offers some very important and, as we think, valuable suggestions as to the way in which the reforms recommended by the Royal Commission should be worked out. First, that "as the Poor-law Board has been abolished, so should be Poor-law Surgeons;" and that, instead of that title, something more attractive should be adopted, as "Civil Surgeon," or "Civil Curative Officer"; then that this officer should have preventive and sanitary duties added to his present ones; that he should therefore, of course, have an increase of status and pay; and that he should work with and under a Medical Inspecting Officer of Health. To this Curative Officer, or Civil Surgeon, Dr. Druitt would give a portion of preventive work—he should have the duty of reporting on local insanitary conditions; of reporting, of course, all cases of fever or cholera, and of, at the same time, accounting for them, if possible; and if insanitary conditions exist, of reporting whether proper notices have been served, and if not, why not—acting thus as Health Officer "of the first instance"; and the whole of the work, preventive and curative, of these officers, Dr. Druitt would make subject to the inspection and criticism of the superior Medical Health Officer, or "Civil Inspecting Practitioner." This latter officer should be possessed of higher and wider qualifications, and would therefore have to perform wider and higher duties. To him would the public look "for statistical information as to sickness and death, and their causes, over the area of his jurisdiction; for initiating and carrying out legal proceedings against nuisances; for inquiring into cases of uncertified deaths. Moreover, he should conduct post-mortems, make analyses, test adulterated food, determine the purity of water, act as coadjutor or substitute for the coroner," and so on. In this way we should have a combined curative and sanitary Medical organisation. The superior Inspecting Medical Officer would be provided by the Curative Officer, or Civil Surgeon, with all the information he would need as to the sanitary condition of his district, and the Civil Surgeon would be relieved from the possibly invidious duties of initiating law proceedings, and of the embarrassment of perhaps offending his friends and patients, while he would gain the support and help of having a superior officer at his back. And we need not, surely, point out that there could not rightly be any feeling of jealousy on the part of the Civil Surgeon as to the higher status of the Civil Medical Inspector—there must necessarily be differences of rank in every organised service.

The plan thus suggested by Dr. Druitt is, we think, well worthy of attention. It is, of course, more fully developed in his paper, and to that we refer our readers. The exact way in which it should be carried out, the titles to be given to the two classes of officers, and other details, may be open to alteration or improvement; but, as it is, it is a valuable contribution towards the mode of working out one of the most important problems of the day. The Inspecting Medical Officers must be highly educated men, and would have very many and onerous duties to perform; but we incline to think, with Dr. Druitt, that they should not be debarred from private practice. There is much force in his remark that "the greatest possible inducement to keep pace with the day is responsibility of attendance on the sick; and that it would be limiting the choice of officers unduly if all degrees of private practice were disqualifications."

Dr. Druitt notices that the kind of system he advocates was some thirty years ago "foreshadowed by the arrangements in some rich and liberal London parishes. For instance, the parish of St. George, Hanover-square, used to employ a Physician and Surgeon, with handsome salaries, besides the general Practitioners." Sir James Clark (then Dr. Clark) and Mr. Howship were the last holders of these offices, and "the parochial Infirmary had a status equal to that of any Hospital." We may be certain that, under such a system, there never would have arisen the need of the "Hampstead Hospital Inquiry." All such institutions must, for due efficiency, have responsible salaried Visiting Physicians; and the kind of organisation recommended by Dr. Druitt would provide the necessary inspection and supervision.

HOW ARE WE TO CHECK INTEMPERANCE?

It is now generally admitted that some sensational articles which lately appeared in an influential review, respecting the increase of secret drinking amongst women in the upper and middle classes, were founded on most imperfect data, and that the alleged evil was gravely exaggerated. The writer, assuming his facts to be correct, launched out into an eloquent denunciation of the "growing vice." It is not denied that secret drinking is the most dangerous form of intoxication, most difficult to cure, and fraught with incalculable mischief. No one knows this better than the Physician. But no one knows better than the Physician that the charge brought against our countrywomen is without any such foundation as is worthy of serious consideration. In times past it was the custom of women of the better classes to stimulate and intoxicate themselves with certain quack medicines, the staple of which was strong alcohol. Drugs, too, such as opium and sal volatile, were extensively used by them. Pope refers to this practice in his memorable distich on "Simo's Mate"—

> "Who in sweet vicissitude appears
> Of mirth and opium, ratafie and tears."

The practice referred to continued long into the present century; but it must be remembered that an excuse might be offered for it in the hard drinking of the men of the period. The debauchery which prevailed amongst the higher and middle classes of men in the first quarter of this century was never exceeded, if equalled, at any time in the history of civilisation. Unquestionably, the current literature did much to favour the orgies which prevailed; and notably the "Noctes Ambrosianæ"—the most fascinating and graphic account of convivial meetings, as also nearly the last—had a marvellous effect on the imaginations and habits of the people. Happily, this has all passed away, and the man who, in the time of "the Regent," was considered a brilliant boon

companion, and who was known as a "two-bottle man," would not now be tolerated in decent society. One of the chief causes of this improvement in the habits of this class of men, was undoubtedly the cessation of their meetings at taverns, at which they carried on drinking to excess, to hours of the morning at which the present generation are asleep. Whatever a man's proclivities may be in respect to drinking, it is certain that in the presence of his wife and family he would be less likely to indulge in habits of drunkenness than if he were surrounded by his tavern friends, each of whom vied with the others in stimulating him to excess. Can it be denied that the great prevalence of intemperance amongst the lower orders is due to the congregation of men at gin-shops and taverns? We think not. This practice, now all but obsolete amongst the better classes, has of late, we fear, been greatly on the increase amongst mechanics and artisans. Hence an accession of crime, disease, and poverty. In the splendidly lighted and comfortable "gin-shop" the frequenter with his fellows forgets all the duties of home, and indulges to an extent to which, whatever his "home" might be, he would not there resort. This vice reacts on his wife and children, and they "retaliate" upon him by drinking strong liquors, and making the home he had made wretched still more miserable. The guardians of one of our most important western metropolitan unions tell us that this kind of intemperance is one with which they find the greatest difficulty to cope. They have found by long experience that the "pauper," who comes to them for either out-door relief or for admission into the workhouse, no sooner becomes independent of their assistance than he immediately repairs to his old haunt—the public-house—and returns to his habits of intemperance, which never fail to bring him back a recipient of their relief. The "licensing system" is one of the most important questions, which must be fairly met in the next session of Parliament. The ratepayers demand that some revision of it should be made; the health of the population cries out imperatively for some remedy for its deficiencies. Those best acquainted with the question are the foremost to admit its difficulty. But wherein lies the difficulty? Clearly in the extreme views which are entertained by the opposing parties in the discussion. Speaking for the Profession—not for that small number of them who would close public-houses altogether, nor for those, still fewer, who would let things remain as they are—we ask, Is there no middle course to be pursued? Is it impossible to preserve the "vested rights" of a large and influential class—the "licensed victuallers"—and at the same time give a check to the present unbridled course of a malignant intemperance? We think not. Mr. Gladstone has done infinite service to the cause of temperance by his reduction of the duties on foreign wines. He may yet place his countrymen in the position of owing him a deeper debt of gratitude, if, in any modification of the "Licensing Act," he shall make it possible for any seller of wines and spirits to hand over to the purchaser a sealed bottle, the contents of which cannot be consumed on the premises, but must be carried away for home consumption. Let it be possible to procure in every town of the United Kingdom, great or small, a bottle of wine or spirits pure and of moderate price. If a man wants to drink, let him share it with his family.

VOLUMETRIC ANALYSIS.(a)

To many to whom the phrase Volumetric Analysis is well known, the process itself is something mysterious and unintelligible; so that we hail with pleasure the appearance of Mr. Sutton's valuable treatise, as affording an opportunity of saying a word on this exceedingly useful invention.

(a) "A Systematic Handbook of Volumetric Analysis; or, the Quantitative Estimation of Chemical Substances by Measure, applied to Liquids, Solids, and Gases, etc." By Francis Sutton, F.C.S., Norwich. 2nd edition. London: J. and A. Churchill. Pp. 377.

There are two modes of ascertaining the exact constitution of a substance subjected to chemical analysis. One is by separating all its elements or ingredients in simple known forms and weighing them. This is gravimetric analysis or quantitative analysis by weight. The other process is founded, not on reducing a substance to its simplest constituents and weighing them, but by subjecting it to certain well-defined and well-known reactions, using for this purpose a solution capable, let us say, of neutralising a given quantity of the kind of material submitted for examination. In this way the quantity of the material submitted for examination neutralised may be exactly ascertained by knowing the quantity of the solution required to neutralise it. This is volumetric analysis, which, though it was mainly developed abroad, speedily acquired a well-recognised importance at home, especially among manufacturers. It had its first development among alkali manufacturers, the so-called process of alkalimetry having been invented long ago by Gay-Lussac. The object of the manufacturer was to ascertain the quantity of soda available in a given specimen of soda-ash, and for this purpose they compared the ash with a solution of soda of a known strength. If, now, ten drops of sulphuric acid exactly neutralised ten drops of the solution the exact constitution of which was known, but it required twenty drops of acid to neutralise a similar quantity of the solution being tested, it was quite plain that the latter contained twice as much soda as the former. Of course the exact point of neutrality would be easily ascertained by the behaviour of the solutions to test-paper.

Now, this is exceedingly simple and exceedingly easy; but the process implies three things. It implies a substance in solution whose power with regard to the substance to be estimated is exactly known. This solution must be of known strength. In the instance just cited the sulphuric acid would practically be known to be capable of neutralising so much carbonate of soda per cubic centimetre; so that, to know the quantity of soda in the specimen undergoing examination, one had only to know the number of cubic centimetres of sulphuric acid expended in neutralising a measured quantity of it. Another thing requisite is an accurate measure, such as is commonly called a "burette." Thirdly, the substances employed must react on each other in such a way that the completion of the reaction is easily recognised. In the instance cited the exact point of neutralisation would be indicated by litmus. But if the process be useful to manufacturers, it is not less so to Medical men, who by it can easily ascertain the composition of any specimen of urine submitted to them—at all events, as to its most important ingredients. Let us take two instances, either of some importance which will further exemplify the two modes of making the standard solutions employed in practice.

It is well known that in many forms of acute disease the chlorides are remarkably deficient in the urine, whilst in others urea is equally so; the danger of this last condition is known to all.

Now, to estimate the chlorides in a specimen of urine, we take a given quantity of filtered urine, and into this is let fall, drop by drop, a solution of nitrate of silver, until a precipitate ceases to form. The silver solution is thus formed:—108 is the atomic weight of silver; but it would be too much to make a solution containing 108 grammes of pure silver, so the tenth of that is taken—viz., 10·8 grammes of pure silver—dissolved in nitric acid, and the solution made up to one litre by distilled water. (In these estimations the metric system is almost universally used.) Each cubic centimetre of this solution will contain $\frac{1}{10000}$th of the atomic weight of silver in grammes, = 0·0108 gramme, and will precipitate exactly $\frac{1}{10000}$th of the atomic weight of chlorine (35·5) in grammes, = 0·00355 gramme, as chloride of silver. The number of cubic centimetres required, therefore, to complete the precipitation in urine need only be multiplied into the last number to

give the exact quantity of chlorides in it. In this case the standard solution has been made on the atomic system; but there is another and (for the Practitioner) more convenient way, which we shall next illustrate.

To estimate urea, a solution is made, as in the case of the silver, but is of such a strength that ·772 gramme of the red oxide of mercury dissolved in nitric acid and diluted is contained in 10 cubic centimetres of the solution. Next, let 40 cubic centimetres of filtered urine be mixed with 20 of a solution of baryta (= two volumes of urine to one of baryta), which will precipitate all the phosphates and sulphates, which would otherwise interfere with the reaction. The mixture is filtered, and 15 cubic centimetres, containing 10 of urine, are retained for examination. Into it is carefully dropped the mercurial solution, until turbidity is noticed from that point the reaction begins, so the quantity of mercurial solution in the burette must be carefully noted. The two must now be mixed and stirred freely, until a drop of the solution let fall into a drop of carbonate of soda solution turns yellow, when the reaction is complete. Here is the explanation of the process. The mercury unites with the urea to form an insoluble compound, but only after the chlorides are decomposed; so that the first drops do not count. As long as urea is being precipitated the carbonate of soda has no effect on the mercury, but as soon as all of the urea is thrown down the mercury solution is decomposed, and the red oxide precipitated. That is the meaning of the yellow colour. Now, by looking at the burette, the number of cubic centimetres required to produce this reaction may be known, and each cubic centimetre of the mercurial solution is equivalent to 0·01 gramme (0·154 grain) of urea. Of course, 10 cubic centimetres would contain ten times that amount, or 0·01 gramme, = 1·54 grain, of urea, from which, the total quantity of urine passed being known, the total urea excreted may be readily calculated. The solutions in this case are what are called empiric solutions; they are difficult to prepare, but easy to work with,(b) and in this way an analysis can readily be made, which otherwise would be exceedingly difficult or barely possible. We have used the metric system of weights throughout, while Mr. Sutton in that portion of his book which refers to urinary analysis—which, though short, is very good—makes use of the grain standard. This to Englishmen is very convenient, but for regular work we strongly commend the other.

(b) Nobody need trouble himself with the preparation of these solutions; they are much more easily and economically got ready-made from Griffin, in Garrick-street, or the author of the book above referred to, at Norwich.

THE WEEK.

TOPICS OF THE DAY.

THE announcement in the *Times*, on Thursday, that the indisposition of the Prince of Wales appeared to be the commencement of an attack of typhoid fever, and the paragraph confirming the report of the nature of the illness, which appeared in some of the evening papers, are calculated to awaken serious apprehension. Sir William Jenner arrived at Sandringham on Thursday, where Dr. Gull and Mr. Oscar Clayton were already in attendance. It is satisfactory, however, to learn that at present no unfavourable symptoms have appeared. That the late Prince Consort and the Prince of Wales should both be attacked by typhoid fever is, to say the least, an extraordinary coincidence, the more so as persons in so exalted a station should be, it may be supposed, shielded to a great extent from the attacks of preventible disease. But who can guard against the danger of the modern water-closet system? Dr. John Lowe, of King's Lynn, is also in attendance on the Prince.

A correspondent of the *Times*, writing from Constantinople on November 7, discusses the measures adopted by the Medical Board appointed by the Turkish Government for combating cholera and preventing its spread. The disease, after lingering about a month on the shores of the Bosphorus, broke out with some intensity in the quarter of Kassim Pasha, an integral part of Constantinople, and afterwards at Hasskeuy, a populous village or suburb. Sanitary cordons were immediately established, and the isolation of the affected districts rigorously enforced. A large colony of English workmen is located within one of the isolated districts. Our countrymen have remonstrated with characteristic fervour against measures which they maintain are unjustifiable, and worse than useless. The Medical Board replies that its action is justified by the principles laid down by the International Sanitary Conference held in 1866, although the remonstrants maintain that the course taken is the exact opposite of that enjoined by the Conference. The following are the recommendations of the Conference, which certainly seem to favour the conclusion of the remonstrants:—

"1. The Conference is of opinion that sanitary cordons established in the midst of a crowded and dense population, are of uncertain effect, and often dangerous; that, on the contrary, established in limited localities, or places thinly populated, like some Asiatic countries, cordons may be expected to render great service against the propagation of the disease.

"2. The Conference is of opinion—first, that isolation, whenever it can be applied to the first cases which mark the outset of an epidemic, is a prudent measure, which no country should neglect for its safety; secondly, that the isolation of a locality attacked by cholera is all the more practical and useful where the country is thinly populated, and the sequestration applied close upon the outset of the epidemic; thirdly, that the isolation of the initiatory focus is the capital prophylactic measure against the invasion of cholera.

"The Conference is of opinion that interruption of communication is the best method of isolating choleraic foci, and should consequently be employed whenever circumstances admit of its being rigorously enforced; but that this measure, applicable only to circumscribed localities, becomes impracticable and inefficient when the epidemic has been propagated over a large space."

The *Times* correspondent adds, however, that the results obtained seem to favour the doctrine of sanitary cordons; for cholera had not appeared elsewhere in the city in a virulent form.

The Porbeagle shark, caught off Rye a few days ago has been purchased for the Museum of the Royal College of Surgeons.

Dr. Ellis, of St. Pancras Workhouse, after having been acquitted by the Local Government Board of the charges brought against him, has been nevertheless called on to resign his office by the same authority, in order to "promote harmony amongst the Guardians."

The Pauper Inmates' Discharge and Regulation Act, 1871, contains a useful and much needed provision with regard to any pauper escaping from or leaving a workhouse or asylum before he is entitled to do so. If such person is suffering from any bodily disease of an infectious or contagious character, the justice convicting him of the offence is empowered to suspend the warrant of commitment, and order him to be taken back to the workhouse or asylum, where he is to remain until he shall be cured, or otherwise lawfully discharged, when the warrant of commitment shall be put in execution. The necessity for this proviso arose from several patients having absconded from the Small-pox Hospital at Stockwell when in an infected and dangerous state, when it was held by the magistrate of the Lambeth Police-court that the provisions of Section 22 of the Act of the 30 and 31 Vic., cap. 106, did not enable him to issue summonses against such patients. Though that Act conferred a power of detention, such power was found, in practice, to be insufficient for the safety and protection of the public. The Legislature has now given the enlarged powers referred to above in respect of patients absconding from either workhouses or asylums.

SMALL-POX JOTTINGS.

THE Guardians of Shoreditch have voted a sum of £25 to each of the six District Medical Officers for extra services during

the prevalence of the small-pox epidemic.——Small-pox has broken out in Nightingale-lane, Limehouse. Eight persons have been attacked.——The disease threatens to assume an epidemic form in Birmingham, and the Medical officers of the town are urging especial activity on the municipal authorities. ——Small-pox is very prevalent in Dublin. Five persons died of the disease last week. Bedford-street is described by the Medical Registrar as "a very hot-bed of disease."——At Bridgwater, on Monday, a baker was summoned for allowing his son to assist in the manufacture of bread while suffering from small-pox. He was fined £10, and a quantity of bread of the value of £5 was ordered to be destroyed.——At a meeting of the Shoreditch Vestry, held on Tuesday, a resolution previously passed, providing for the sale of the wooden building temporarily used as a small-pox Hospital in the Hackney-road, was rescinded, as the materials might disseminate the disease throughout the district.

PROFESSOR HUXLEY'S THIRD AND FOURTH LECTURES AT THE LONDON INSTITUTION.

PROFESSOR HUXLEY commenced his third lecture on "Nervous Matter: its Structure and Properties," by remarks on the disputed question of vivisection. While fully admitting it to be cruel and objectionable if performed unsuitably or unnecessarily, he maintained that, as a means of increasing human knowledge, with the view to the alleviation of human suffering, it has already yielded and continues to yield such important results as, in his opinion, quite outweigh all objections to it on account of its apparent cruelty. He stated it to be well known that scientific men who, by this mode of investigation, have discovered facts of the utmost importance in the elucidation of the phenomena of disease, have, nevertheless, been so maligned and run down, that, instead of enjoying the legitimate reward of their labours, they have passed their lives in disappointment and comparative obscurity. It was, therefore, with the object of vindicating the claims of such men to a proper estimation of their services, and, in fact, of publicly expressing his approval of and sympathy with them, as well as of impressing certain facts upon his audience, that he purposed to commence the present lecture by displaying some experiments in vivisection. In order to obviate or remove any disagreeable impressions which might arise on witnessing such experiments, he assured his hearers most positively that the results which he was about to show them no more produced the sensation of pain or even consciousness on the part of the animal submitted to them than does the striking of a repeater, on the pressure of the spring, produce any sensation in that piece of mechanism. The first and second experiments, however, were on the lower extremities and portions of the spinal cords of dead frogs. By the first preparation, in which the skin had been removed, he showed the influence of the electric current generated by a slip of platinum passed behind the nerve-tissue in the spinal canal, and a piece of zinc touching the platinum and the spinal cord in front. The muscular contractions so induced were very decided. It was thus evident that the limbs of the frog so prepared represented a piece of mechanism, in which the nerve fibres, on the passage of an electric current, underwent a change capable of producing muscular contraction. The nature of this change has not yet been ascertained, but it is evidently the determining cause of the muscular contractions. By the second preparation, in which the skin had not been removed, he demonstrated the extent of the muscular action maintained by the nervous influence of the attached spinal cord, by showing that when held up the limbs remained contracted for a few seconds, until dragged down by their own weight; but on irritation of the skin, by being touched with the point of the forceps or finger, muscular action was again induced, and the limbs were pulled up towards the trunk. The repetition of this part of the experiment appeared to take the fancy of the younger portion of the audience so much, that Professor Huxley considered it advisable to request them to refrain from any display of their amusement, informing them that the results so observed formed an important part of the most wonderful series of phenomena which have ever been studied by men of science. That the presence of the skin is necessary for the success of this experiment is proved by the fact that no muscular contractions are produced by direct irritation of the muscles in a preparation from which the skin has been removed. He next showed the effect of the application of a still more powerful irritant to the skin by touching one of the limbs with a glass-rod steeped in strong acetic acid: not only were very active jerkings of that limb induced, but the other limb was applied, and rubbed along the part which had been touched exactly in the manner in which it would have been had the animal been alive, and desirous of removing an offending substance from the limb—this, Professor Huxley observed, being an instance of instinctive muscular action induced by irritation of the skin.

The subject of the third experiment was a living frog, from which, by a rapid operation, the cerebral lobes had been removed, thus reducing the creature to the condition of a piece of mechanism—living, indeed, but as completely unconscious of external sensations as if it were a watch or other apparatus constructed by human hands. It could breathe as usual, and swallow if food were placed in the throat, and might thus be kept in that condition for twelve months, as all the nutritive functions would proceed regularly; but it was utterly incapable of voluntary motion; by no noise or approach of external object could it be caused to move, and unless fed and attended to it would remain in the same position until actually dried up. On taking this creature into his hand, Professor Huxley showed how it remained perfectly motionless, so long as he kept the palm of his hand perfectly horizontal. On altering the position of the palm so as to cause in the frog a tendency to fall by its own weight, the animal, by a series of the most accurate climbing movements, maintained itself on the upper surface of his hand while it was being gradually turned until the palm was underneath, by which time the frog was securely perched on the back of the hand.

Taking these experiments as his text, Professor Huxley then, in a manner peculiarly lucid and simple, without the introduction of a single hard word, built up, as it were, before his hearers the whole modern theory of reflex muscular action. He illustrated by diagrams the relations of the afferent and efferent nerves to one another, to the spinal cord, to the muscles to which they are severally distributed, and to the skin. He explained that if the posterior or afferent root of a nerve, as it enters the spinal cord, be cut, irritation of the skin will not cause contraction of the muscles supplied by the efferent fibres, and that it is thus proved that the spinal cord is the seat of a certain sort of nervous power, capable of producing muscular contraction, but not attended by sensory impressions. He demonstrated the structure and appearance of a section of the spinal cord, the relative positions and functions of the white and grey nerve-tissue. He illustrated the connexion between the ultimate fibres of the efferent nerves and the ganglionic cells of the grey nervous matter, while no such connexion has yet been proved to exist between the afferent fibres and the ganglionic cells. Proceeding upwards along the cord, he explained the functions of the medulla oblongata in maintaining the movements of respiration, and of the cerebellum in regulating and co-adapting all the complex motions of the body necessary for progression and prehension. He showed that, in the frog prepared for the lecture by the removal of the cerebral lobes, all these parts of the spinal cord existed undisturbed, and thus accounted for the power which the creature still retained of performing the complex climbing movements which he had shown them. He also stated that such a frog, if placed on its back, would be able to bring itself round to the usual squatting position, in

consequence of its movements being guided by the co-adapting power of the cerebellar lobes; but this he did not show by actual experiment. He traced the climbing movements, from the cutaneous impression produced on the frog by the altering position of his hand, and conveyed through the afferent cutaneous nerves to the spinal cord, thence to be reflected through the efferent or motor nerves to the muscles, thus producing in them the contractions necessary for maintaining its position on his hand.

He concluded his lecture by seriously warning his hearers against the cruelty of injuring or destroying the lives of any of the lower animals for the mere purpose of wanton amusement; but maintained that for the purpose of extending human knowledge, or for the investigation of obscure physiological problems, a correct solution of which would be likely to exert a beneficial influence upon the health and happiness of mankind, well-devised and skilfully performed vivisections are necessary and perfectly justifiable.

Professor Huxley commenced his fourth lecture by supplying an omission in his third—namely, the notice of the controlling power of certain portions of the nervous system over others. This he illustrated by first describing the structure and rhythmical action of the heart of a frog, as may be observed for hours after the death of the animal. He showed by a diagram the position of the ganglionic nerve-centres between the auricles and ventricles of the frog's heart—how these nerve-centres are connected by nervous filaments with the pneumogastric nerve coming from the medulla oblongata; and described how irritation of that nerve retards, and if carried beyond a certain extent actually arrests, the action of the heart. Other nervous filaments, again, connect the ganglionic centres of the heart with the great sympathetic nerve, which is itself in connexion with the grey matter of the spinal cord, and irritation of which has been demonstrated to exert a powerful influence in accelerating the action of the heart; so that the heart's action is regulated on one hand by the *inhibitory* power of the pneumogastric nerve, and on the other by the *adjuvant* power of the sympathetic. On the basis of these facts, he explained how it is that severe injury—such as the crushing of a limb—reacts, through the nerves connecting the seat of injury with the spinal cord and medulla oblongata, on the ganglionic centres in the heart, producing in that organ slowness and depression of action and the general phenomena expressed by the term "*shock*," and which sometimes even proceed to complete death.

Having thus noticed the action of the nervous system so far as it can be expressed in the terms of "matter and motion" employed by Hobbes, and considering it simply as a material automaton of wonderfully perfect construction, far surpassing all the mechanism that man has ever succeeded in devising, Professor Huxley proceeded to the consideration of the totally different series of phenomena presented by states of mental consciousness. To these he applied the short term "psychoses"—derived from the Greek word ψυχη (*psyche*, signifying soul); and to the other conditions of the nervous system which he had hitherto been explaining he applied the term "neuroses," which he also mentioned may be classified as "afferent, efferent, inhibitory, and adjuvant." The *psychoses* may be briefly enumerated as sensation, thought, volition, vision, and the muscular sense. He further illustrated the term psychosis by a strikingly vivid description of the internal phantasmagoria presented to the mind of a person entirely removed from all sources of external impressions in a dark, quiet, retired place, and with his eyes shut. Under such circumstances, there passes through the mind a train of thoughts or ideas, sometimes even without effort, often quite beyond the control of the will, and apparently without any connexion. By an effort of will they may be regulated to a certain extent, but on the slightest relaxation of that effort they go on of their own accord, as it were. The influence of pleasure or pain in bringing forward certain ideas more frequently and more powerfully has been felt by all of us—such influence having in many persons become so powerful that the same "fixed idea" is always uppermost, producing the condition known as monomania.

Psychoses may be classified as "original and reproduced." The former are regulated by no definite laws, as they have their origin entirely in external impressions. He illustrated this condition by his own sensations in looking up at the mass of strange faces before him as he spoke, each producing in him an "original psychosis." The latter he described as the re-collection of facts of consciousness or memory, the action of which is regulated by certain conditions, which may be called the laws of memory. These are as follows:—

1. The intensity of the original psychosis.

2. The repetition of the original psychosis—on which point he impressed upon his audience the value of repetition as making up for lack of original strength of memory.

3. The association of ideas by similarity—which, he observed, is also the origin of that play of words known as "punning."

4. The association of ideas by contiguity, or *association proper*. This he illustrated by the fact that sensations, such as smell, in certain cases, will invariably raise up in the mind the memory of some past event or scene. Taking himself as an instance, he observed that he never can read a book written by a person with whom he may be acquainted, without having constantly before his mind's eye every peculiarity of voice tone, and manner of the author.

Whatever may be the substratum on which the nervous system acts in the production of memory, that particular psychosis, although it may be aided, modified, or temporarily put aside, can never be prevented or obliterated by an effort of the will—it is absolutely involuntary. The relation of volition to the organ of memory is similar to that of nervous matter to muscular action. Volition may refuse attention, but the machine works uninterruptedly, and memory, on the application of the stimulus, brings up again the ideas with which it is charged. Leibnitz gave expression to similar ideas when he applied to the body the term "material automaton," and to the mind, "spiritual automaton." The reflex machine of memory always begins to work on the application of the stimulus: hence volition, by the suggestion of approximate or actually connected ideas, can aid memory in its search or effort to renew a previous psychosis.

LONDON SMOKE.

THE public are beginning to have a languid kind of idea not only that London smoke is a great nuisance, but that it does admit of some remedy. Two letters on the subject have appeared in the *Times* in the course of a week. We should be glad to see the matter taken up warmly in the public journals, as the first step towards doing something. The scientific elements are few and simple. The first point is, to diminish the formation of smoke. This is already done, by a careful method of stoking, in all furnaces used for manufacturing purposes within the metropolitan area. Something may be done towards this end in private houses by more careful stoking—by never letting a fire get too low, and never putting on more coal at a time than will get into a blaze in a few minutes. It is the slow heating of too large a mass of coal that generates black smoke. Some kinds of grate are devised to answer this purpose. But, after all, even with the greatest care in stoking, much smoke must escape; and even if no black smoke, the quantity of fine dust and ash, and of the products of sulphur-combustion, that contaminates the air is very great. We want "smoke arcades," to collect the fumes of chimneys and conduct them into underground sewers, where the smoke may be purified and utilised. The plan was made public in the *Medical Times and Gazette* of August 20, 1853, by Mr. Spencer Wells.

DR. RICHARDSON ON THE USE OF ETHER SPRAY IN DIAGNOSIS.

At the Medical Society of London, on Monday last, Dr. Richardson explained a new application of ether spray, which he had for over two years past employed—viz., for the purpose of diagnosis in some forms of nervous disorder. He had noticed from the first use of the spray that the period required for producing freezing of the surface of the body varies with the condition of the patient, the weak and the aged being much more easily influenced than the robust. He therefore had been led to the practice of using the spray as a test of vascular tonicity of parts of the body, and inferentially of the nervous control over the vessels. In the case which had led to these observations—a case of obscure paralysis, brought before the Medical Society by Dr. Alfred Carpenter, of Croydon, on which a committee, consisting of Drs. Richardson, Lockhart Clarke, Broadbent, Hughlings-Jackson, Carpenter, and Mr. Brudenell Carter had drawn up a report for the Society—this method of employing ether spray had been adopted, with the effect of finding that in certain of the paralysed parts the freezing of the tissues could be established in from two to three seconds, while in a healthy subject, and in the same subject on other parts of the body, from eight to nine seconds of time were required, the ether used and the external conditions being the same. The practice is suggestive of extensive application in estimating what, in the absence of a better term, we may still venture to call "the vital power" of different individuals or of the same individual, generally and locally, under various conditions of disease.

SURGEON-MAJOR WYATT ON GUNSHOT WOUNDS.

We last week published with pleasure a memorandum which appeared in the *Times* of the 16th inst., stating that in the opinion of the gentlemen whose signatures were attached, Mr. Stokes' treatment of the gunshot wound which resulted in the death of police-constable Talbot was judicious, and can in no way be connected with the fatal result. We have this week to notice with very different feelings a reference to that memorandum published in a subsequent number of the *Times* by Surgeon-Major Wyatt, of the Coldstream Guards. From the fact of Surgeon-Major Wyatt's name not having been attached to the original memorandum either in accord with or protest against the opinion therein expressed, we feel justified in coming to the conclusion that his opinion had not been asked by the distinguished Surgeons who framed that memorandum. Under such circumstances the good taste of Surgeon-Major Wyatt seems to us questionable when he puts himself before the public in the columns of the *Times*, in the position of an unfavourable critic (so far as regards the knowledge of the treatment of gunshot wounds) of "those who undertake the mission of Surgical instruction at our Medical schools,"—considering that most of the gentlemen whose signatures were attached to the original memorandum may be justly said to rank in the highest class of teachers in our metropolitan schools. Mr. Wyatt's experience of gunshot wounds during the sieges of Sebastopol and Paris was doubtless very extensive, but we are not aware of any important addition made by him to our knowledge of the subject, nor of any reason why he should set himself forward as the exponent of the theory and practice of the treatment of gunshot wounds by English Surgeons.

ARE "EXTRACTS OF MEAT" NUTRITIVE?

It appears from the experiments of Dr. R. Müller, referred to in the *Moniteur Scientifique*, that we have been under a delusion respecting the nutritive properties of extracts of meat. Dr. Müller contends that "meat extracts" are neither directly nor indirectly food, being, as he says, deficient in the necessary albuminous matter. If given alone, he says—and the same applies to beef-tea—these extracts only tend to retard the recovery of convalescents. Can this be true?

HOSPITAL RULES OF PRACTICE.

An inquest was held this week in Charing-cross Hospital on the body of a girl, 10 years of age, who was burned by accident at her father's house. She was taken to King's College Hospital. The House-Surgeon having looked at the injuries, ordered the child to be taken up to bed by one of the porters. On hearing this the child became much frightened, and screamed loudly, calling out that she would not be taken from her mother. The mother then said she would take the child home if the House-Surgeon would dress the wounds. This, however, he refused to do, alleging as a reason that it was a case for admission into the Hospital; and as the mother would not leave it, the rules of the Hospital precluded him from doing anything for the child. The mother then took the child home, and sent for a Doctor, who said it had better be taken to the Hospital. The burns were then dressed by the child's father, and the following day it was again taken to King's College Hospital; but the Surgeon now said he could not take it in, as all the beds were full. The child was then taken to Charing-cross Hospital, where it remained until its death. Mr. Slack, the House-Surgeon, said the child was admitted on October 10. It went on favourably until the following Thursday, when it was attacked with inflammation of the kidneys, and died on the 18th. The inflammation had been accelerated by the burns and the shock to the system. In reply to questions by the coroner and jury, the witness said it was the custom of all Hospitals, when the cases were of a serious nature, for the House-Surgeon to refuse to attend to it if the patient declined to remain in the Hospital. The verdict eventually was one of "Accidental death." Much, of course, must be left to the discretion of the House-Surgeon of a Hospital; but to assert that in *no* serious case assistance will be given if the patient does not remain in the Hospital, is hardly credible.

CIRCULATION OF QUACK-BOOKS BY POST.

One of the greatest nuisances to which respectable persons can be subjected is the receipt of some obscene quack-book by post. Complaints have been made over and over again in the columns of the press, magistrates have been applied to, and proceedings threatened under Lord Campbell's Act; but none of these endeavours have had any effect in stopping the atrocious system. The consequence has been, that dirty little obscene pamphlets have been scattered broadcast over the length and breadth of the land through the Post-office. These outrages on decency have thus frequently found their way into the hands of women and young persons. There is some chance that the nefarious practice may soon be put a stop to. We learn, from the *Birmingham News*, that the question as to whether the circulation of the books of quacks, by means of the Post-office, was not forbidden by No. 14 of the General Regulations, has been duly considered. In consequence, instructions have been issued that this class of books is to be considered as "obscene." They have hitherto been considered as Medical works; just as some journals insert filthy advertisements under the plea that they are "Medical announcements."

ILLEGAL POST-MORTEM EXAMINATIONS.

In consequence of the insufficiency of the evidence adduced to prove who made the post-mortem examination of a child in the Ratcliff-cross Hospital, in the case mentioned by us last week, the magistrates of the Thames Police-court have refused to grant a summons against the Hospital Surgeon. This case has broken down simply upon a technical ground. There can be no doubt that when sufficient evidence can be adduced against an offender, he will, if convicted, be severely punished. We trust that the practice of performing unauthorised or forbidden examinations will cease in our public institutions. Nothing is so injurious to the true interests of charity and the Profession.

MEMORIAL TO DR. PRIESTLEY.

It was said that in Athena "atatues were as common as men." We have no such complaint to make of London, or any of the large towns of the kingdom, though it must be confessed that memorials are sufficiently plentiful. Strange it seems that no public tribute to the memory of one of the most amiable of men, the profoundest of philosophers, and the ablest of chemists should have been erected in the town in which he passed much of his life—Birmingham. Probably party-feeling, and the tenets to which Dr. Priestley subscribed, and for upholding which he suffered so grievously, may account for this. We are rejoiced to see that the men of Birmingham have at length taken steps to remove what may be regarded as negligence in a good cause. It has been decided that a memorial to Dr. Priestley should be founded: that it should embrace three objects—viz., the founding of a scholarship for the support of a student of science at some public scientific institution, the purchase of the site, and a statue. It was stated that £3000 would be required for these objects. Several handsome subscriptions have been received.

INDIAN MEDICAL SERVICE.

The advertised announcement, that at least forty vacancies in the Indian Medical Service will be thrown open to public competition in February next, will no doubt be received with pleasure by many young Medical men, who have been looking forward to an Indian career. We have, however, lately noticed some of the changes which have latterly sprung up in the position and prospects of Medical officers in the Indian Service. These changes have certainly not been for the better; and we should not feel much surprise if the Government of India were to observe the natural result of the recent modifications which they have introduced into the conditions of their Medical Service, in not finding the supply of candidates quite equal to the demand. It certainly appears to us that the native Indian gentlemen, who had, at considerable expense and inconvenience, qualified themselves for the Indian Medical Service, by study in this country, while there were no vacancies to reward their efforts, have very just claims for reparation against the Indian Government.

CAN IT BE TRUE?

Liverpool has long had an unenviable notoriety for its rate of sickness and mortality. Under the able administration of its indefatigable Health Officer, Dr. Trench, many of the causes of disease and death have been removed. But how can Liverpool, or any other town, be anything but a "hotbed of disease" when such places exist as the following, described by Dr. Trench to the Liverpool Health Committee? He said that in Rachel-street there are nineteen houses in a dilapidated state—without doors or windows—occupied by people suffering from typhus and relapsing fever. It was determined by the Committee that proceedings should be immediately taken against the house-owners, who seem to have had reason to hope that the Corporation would buy the property. It may be pertinently asked how long these houses have been so dilapidated. There must have been a want of energetic action somewhere to have allowed matters to get to such a pass.

HEALTH OF THE NAVY.

This Report for 1869, which has only just been issued, shows an increased (1 per 1000) death-rate in the fleet, compared with the previous year. This was attributable to the prevalence of yellow fever in North America and the West Indies and South American stations. The Report also contains reports from all the home naval and marine Hospitals and dockyard establishments, giving full information as to their sanitary condition. This latter information is quite a new feature, and is for the first time introduced in this Report.

OPHTHALMIA IN THE MITCHAM SCHOOLS OF THE HOLBORN UNION.

Some discussion of an animated nature took place, last week, at the meeting of the Holborn Board of Guardians. It appears that ophthalmia prevails to a great extent amongst the children of the Holborn Union located at Mitcham. The Medical Officer suggested that an infection ward should be added to the Infirmary for the purposes of the schools. Several members of the Board denounced what they called "allopathy," and suggested that a homœopathic Practitioner should be called in. Eventually, the report of the Medical Officer was referred to the School Committee.

MEDICAL OFFICER OF HEALTH FOR LAMBETH.

At the meeting of the Vestry of Lambeth, last week, it was decided that an Officer of Health, at a salary of £500 a year, should be appointed. It is understood that his whole time should be devoted to the duties of the office. If the duties are properly performed his whole time must be devoted to them, for the parish is one of the most extensive in the kingdom. The salary is sufficiently moderate for the work required.

THE INDIAN MEDICAL SERVICE.

It has always been felt a hardship that, when Indian Army Medical Officers are ordered from India for duty in England, the Indian allowances should cease on embarkation in Bombay. We are pleased, therefore, to record that it is most probable the Indian authorities will for the future grant the ordinary servant's allowance during the homeward passage.

ST. ANDREWS MEDICAL GRADUATES' ASSOCIATION.

The anniversary session of this Association, which is announced for December 1 and 2, bids fair to be of considerable interest. On the 1st, at 8 p.m., a discussion on "Habitual Drunkenness and its Treatment, Medical and Legislative," is to be introduced by Dr. Swete; and on the 2nd, at 5 p.m., the President, Dr. Day, of Stafford, will deliver the anniversary address, "The Historical Steps of Modern Medicine."

LADY MORDAUNT.

An influential Scotch paper—the *Dundee Advertiser*—states that it has been informed that Lady Mordaunt's friends are still doubtful as to the soundness of her mind, and that, with the view of having their doubts settled, they last week placed her under the care of experienced Physicians in England.

FROM ABROAD.—M. BERTILLON ON THE ADVANTAGES OF MARRIAGE—EXPULSION OF GERMANS FROM FRENCH MEDICAL SOCIETIES.

At the meeting of the Académie de Médecine, on the 14th inst., M. Bertillon read a paper on "The Influence of Marriage on the Duration of Life, and on Intellectual or Moral Diseases." Engaged for some time past in preparing an article on Marriage for the new French "Dictionnaire des Sciences Médicales," he has had occasion to consult all the documents published on the subject in the various European countries, and has come to the conclusion "that the influence of the conjugal association, whether on the health or the morality of both sexes, is far more considerable than is generally suspected." To facilitate the comprehension of the results he has arrived at, he has exhibited them in geometrical tables, which he distributed to his auditors, and which he is also willing to supply to other inquirers on their forwarding postage-stamps to his residence, 24, Rue Gay-Lussac.

These tables at once show the differences of the conditions which prevail with respect to celibates, the married, and the widowed, according to their age, sex, and nationality—France, Belgium, and Holland being, however, the only countries in which official documents allow of an appreciation of these differences. First, as to men, it is found that from 25 to 30

years the married furnish 6 deaths, celibates 10, and widowers 22 deaths per 1000; from 30 to 35 years the deaths are respectively 7, 11, and 19 per 1000; and from 35 to 40 years, 7½, 13, and 17½ per 1000; and so on for all other ages the married man continues to die less easily than the celibate, and this because he is less ill and suffering less in every respect. Is this to be explained by the fact that the married comprise the men who are best off in fortune, in regular habits, and in health; and therefore it is not surprising that they should live longer? But then how are we to explain the mortality which at all ages and in all countries affects the widowed? Their longevity is not due to their own superior qualities, but to the fact of marriage; and on this ceasing to exist, they die more rapidly than before marriage. *Very early marriages* do not follow this rule; for of 8000 men who marry before 20 in France, and whose mortality before marriage was hardly 7 per 1000, rises after marriage to 50 per 1000! This is the result of a careful examination of French, Belgian, and Dutch returns during ten years: young married men from 18 to 20 years dying at the same rate as aged men of from 65 to 70.

M. Bertillon finds that in women the advantage derived from marriage is somewhat less marked than among men. It does not show itself at all until after 25, and is scarcely remarked until 30. From 30 to 35, the deaths amongst spinsters are 11, and only 9 per 1000 amongst wives, the difference increasing until 55, beyond which age the advantage diminishes somewhat. From 50 to 55, wives exhibit but 15 or 16 deaths per 1000, while spinsters or widows furnish 26 or 27. Prior to 25 years for France, and 20 years for Paris, marriage is injurious to the vitality of women, the mortality of spinsters from 15 to 20 being 7·53, and of wives 11·86 per 1000; and of spinsters from 20 to 25, 8·32, of wives 9·92 per 1000. While speaking most positively as to the exactitude of the above facts, M. Bertillon is more circumspect when treating of their causes. Among these are the dangers of accouchements, especially of the first, the mortality of married women diminishing markedly after 40, when these become rare. In Holland there is, indeed, no diminution until that age. It is difficult to say whether parturition is more difficult among the Dutch than the French, but at all events it is more frequent—for while 100 French women produce twenty-one infants per annum, 100 Dutch women produce thirty-three or thirty-four. We have seen the lugubrious effects which M. Bertillon found constantly attached to the condition of widowhood in man. In women its effect is singular, and especially in Paris. From 25 to 30 it is mischievous; for while but 9 deaths per 1000 per annum were furnished by maids and wives of these ages, in widows the figures rose to 17. But in France, and especially in Paris, this mortality soon diminishes, and after 45 it is not greater than in maids of that age. At this age it is the mothers who are most spared by death.

"Thus, it is in vain that old maids have deprived themselves of the pleasures of love, and dispensed with the dangers and anxieties of maternity. Contrary to generally received ideas, they are more sickly and more fragile, and we may say that, whether as regards the animal economy or the mental condition, hymen in women retards old age and alleviates its miseries. The general conclusion of this investigation is, that marriage is a far more powerful element of health than has been supposed, exerting its salutary effects on men, especially during their period of vigour, and in women (by reason of the dangers of childbirth) at the decline of age. Finally, the calculation of probabilities shows us that the man who marries between 20 to 25 has yet a mean of forty years to live in place of thirty-five years, and that the girl who marries at the same age has forty years of life to hope for in place of thirty-six, which she would have lived unmarried—the one adding five years to his existence, and the other four years to hers."

M. Bertillon next considers the influence that marriage exerts in relation to criminality, which is very considerable. For 100 criminal celibates, there are but 49 married, as regards crimes against the person, and only 45 in crimes against property; and not only does this enormous disparity exist, but in the gradual diminution of criminality which has taken place since 1840 the married have borne the largest part. The criminality of widowers, and especially that of widows, is generally somewhat in excess of that of the married. The number of suicides among celibates and the widowed is about double that which takes place among the married. Insanity also appears to affect the married in a still lesser proportion.

"Thus," M. Bertillon observes in conclusion, "from all these investigations I must conclude with Franklin that it is in the morning of life (not too early morning, though) that it is of importance to cement this conjugal association, this true social union—the delight of those who have known how to well choose each other. It is a fortress assailed with most difficulty by the miseries of existence, strong against criminal or foolish suggestions, strong against despair, strong against disease, and strong against death itself."

One of the Paris Medical societies—the Medico-Pratique—has, in the matter of its German members, exhibited less sense and discretion than the Société du Departement de la Seine, which has resolved to institute a preliminary investigation before taking action against them. This, at least, has the semblance of something like justice, although, as we recently showed, whatever may be its result, it can never justify the step contemplated. The Medico-Pratique scorns any such dilatory procedure, and in hot haste has issued a circular to its German members, announcing to them their peremptory expulsion, in these somewhat high-flown terms:—

"This Society loudly proclaims that one of the noblest conquests of modern civilisation is, beyond all contradiction, scientific neutrality; but it hesitates not to declare that any nation which shelters espionage and pillage behind science, voluntarily places itself beyond the pale of civilisation. Consequently, this Society decrees the definitive expulsion of all German Physicians who have the honour of belonging to it; and, moreover, it expresses the wish that for the future all the Faculties and Medical Societies of France may remain closed against the subjects of Germany."

To this resolution, which can only be regarded as insulting to men who would just as strongly blame any ill-conduct on the part of members of the Medical Body as its proposers, Dr. Wolff replies in a very temperate letter. In this he states that during the war he was Director of the Military Hospitals at Worms, and that in these and the town itself hundreds of French prisoners were treated between August, 1870, and June, 1871, with a humanity and success that have been even admitted by the French Government; and that there, as in the other German Hospitals, the nationality of the patients has only been a motive for exhibiting greater tenderness towards them. He states that the news of the action of the Society towards its German members was at first received with utter incredulity in Germany, where it was not believed that the opprobrium due to the alleged calamitous acts of espionage and pillage would be allowed to fall upon the entire nation. He protests against this ignominious ostracism, as a violation of all laws of Medical confraternity, in the absence of any proof of those affected by it being in any way, in thought or deed, implicated in any of the actions stigmatised; and he feels certain that he may safely appeal against this decree of a mere fraction of it to the general body of the Profession in France, a long residence among whom has taught him to esteem.

Translation of the Strasburg Medical Faculty.—This question, which has been so warmly debated between the advocates for the transfer being made to Lyons and to Nancy, is now said to be settled in a manner which will prove satisfactory to both sides. There are to be two new faculties created, one at Lyons and the other at Nancy. That of Lyons will have the Professors of the Faculty of Strasburg, and will be the most important, in consequence of the numerous Hospitals there. That at Nancy will be especially reserved for *savants*, and will be provided with physical, chemical, and physiological laboratories, in which the scientific progress in Germany may be studied and communicated.

SPURIOUS TEA.

On Thursday last a deputation from the Sanitary Committee of the City of London waited on the Chancellor of the Exchequer, by appointment, for the purpose of explaining the inefficacy of the law as regards the importation and sale of spurious and unsound tea. The deputation was introduced by Mr. Deputy Kelday, the Chairman of the Committee, and it was attended by the solicitor and the Medical Officer of Health. Mr. Kelday described the position of the sanitary authorities of the City, and said that, although they were most anxious to put a stop to a practice which was not only notorious, but was really a public scandal—the manufacture and importation of spurious tea—yet they had hitherto failed to accomplish it on account of the imperfect and uncertain condition of the law, and they were desirous to have it amended.

Dr. Letheby directed attention to the fact that the manufacture of spurious tea in China for exportation to this country was a recognised business; and that not only were large quantities of leaves, other than tea-leaves, and notably willow-leaves, manufactured for the sole purpose of adulterating tea, but it had also become a practice to manipulate the exhausted leaves of tea already used by the Chinese, and to send them into commerce under the names of "Moning Congou," "Maloo mixture," etc. Large quantities of these spurious and exhausted teas had come under his observation, chiefly at the Commercial Sale-rooms in Mincing-lane, where they were publicly sold by auction; and, although many attempts had been made by the sanitary authorities of the City to put a legal stop to such proceedings, and to bring the offenders to justice, yet, from the peculiar nature of the transaction, and the way in which wholesale business is conducted, it was found impossible to reach the guilty parties; for not only was it difficult to ascertain who were the owners of such tea, but it was still more difficult to gain access to the bonded warehouses for the purpose of inspecting the tea, and it was actually impossible to remove it for condemnation; in addition to which all kinds of technical legal difficulties have been raised as to whether tea can be considered as an article of food or drink, or of provision, or even as a vegetable, within the meaning of the Act of Parliament. In illustration of this, Dr. Letheby referred to some of the proceedings of the sanitary authorities at various times. In the early part of 1866, it came to the knowledge of the Commissioners that the salvage tea from the fire at Beal's Wharf, in Tooley-street, was to be offered for sale in the City. Samples of the tea were obtained, and they were found to be either so charred by the fire or exhausted by the water from the engines that they were quite unfit for human consumption. Proceedings were, therefore, taken before a justice to obtain the condemnation of the 350,000 lbs. of damaged tea offered for sale; but they failed on account of technical difficulties—chiefly in the circumstance that tea was not sufficiently defined in the Act of Parliament, and could not, therefore, be called a vegetable or an article of diet. In the month of March, 1870, 201 chests of putrid tea, called Moning Congou, and fifty chests of spurious tea, called Orange Pekoe siftings, were advertised for sale at the London Commercial Sale-rooms, in Mincing-lane. Samples of these teas were obtained with great difficulty from the bonded warehouses; the former was found to be the putrid and rotten leaves of exhausted tea that had been already used by the Chinese, and re-dried, and the latter consisted in great part of spurious leaves. By way of testing our powers, six chests of the Moning Congou and nine of the Pekoe siftings were seized, under a guarantee to the Dock Company, and carried before the magistrate, who condemned the former without hesitation, but who declined to condemn the latter, as it was not proved that the spurious leaves were unwholesome. While these proceedings were afoot, the rest of the tea was taken from the warehouses beyond the jurisdiction of the City authorities, and it was found to be impossible to obtain the names of the owners of the tea. Still more recently, in the month of April of the present year, 628 chests of spurious tea were advertised for sale in the City, and, although they consisted in great part of dirt and iron filings, and realised by public auction from only three-farthings to five-farthings per pound, yet we had no power to interfere. Under these circumstances Dr. Letheby contended that the Act of Parliament required revision; and, considering that the port of London, like every other port in the kingdom, is under the jurisdiction of many sanitary authorities, whose modes of action are not always the same, he contended that the duty of inspecting tea, and of executing the powers of the Act of Parliament in respect of the seizure of adulterated and unwholesome tea, should rest with some authority having jurisdiction over the whole port. He pointed to the Custom-house officers, and their machinery already in complete existence, as the best suited for the purpose—for, in the first place, they have power over the whole of a port; in the second place, they have the most perfect and intimate knowledge of all incomings and outgoings of every port; in the third place, they are present at the sampling of teas, and at the emptying of the chests for the purpose of taking the tare for duty; and thus they have an immediate inspection of all tea which enters the port; in the fourth place, there is a chemical laboratory, with a competent staff of experts for the analysis of tea when necessary; and, lastly, they have the power of refusing a permit for the delivery of any unsound tea from the bonded warehouses into commerce.

The Chancellor of the Exchequer, however, was afraid that the power would be too large and too delicate for such a class of officers, and in this he was supported by Sir Thomas Fremantle, who was present at the interview; and he recommended the sanitary authorities of the City to apply to the Home Secretary for an amendment of the law. In this manner the City authorities have, in their endeavour to deal with a very important public question, been passed from the Board of Trade to the Chancellor of the Exchequer, and by him to the Home Office.

ON THE PREVALENCE AND DISTRIBUTION OF FEVER IN DUBLIN.

The following is an abstract of a paper read before the Medical Society of the College of Physicians, Ireland, on November 15, 1871, by Thos. W. Grimshaw, M.D. Dub., etc., Physician to Steevens's and Cork-street Fever Hospitals:—

In bringing forward the following remarks at the present time I am performing an unpleasant duty—unpleasant, because I have to show not only that fever is now more prevalent in Dublin than it had been during the past few years, and that it is still on the increase, but that the form of fever considered by sanitarians as the most preventible is the one which has become most prevalent. At the same time, the conditions which favour the development and extension of fever and of all forms of zymotic disease are so rife in our city that we must look for some great change in our present sanitary system.

I shall first consider the question of the prevalence of fever in Dublin. From a consideration of the admission returns relating to two of our Hospitals most largely set apart for the reception of febrile and other zymotic diseases—the Cork-street Fever Hospital and the Hardwicke Fever Hospital—we see that, commencing with the year 1857, the number of fever cases fell until 1859, when it rose for one year (1860), again declined in 1861, to rise in turn continuously up to 1866, when the number of admissions into the two Hospitals mentioned reached 3562. In these are counted 187 cases of Asiatic cholera admitted into the Hardwicke Hospital. This year (1866) had the largest amount of fever of any year of the period under discussion. Subsequently fever steadily decreased in frequency until 1869, when the admissions fell to 1821. Since that time, however, the numbers have been again rising—2264 in 1870, and 2345 in 1871. To leave out of consideration the Hardwicke Hospital returns, it appears from a comparison of the admissions to Cork-street Fever Hospital with the death-rate from fever published in the Registrar-General's Reports, that the former are a close and tolerably accurate gauge of the total prevalence of fever throughout Dublin. The general result is that fever is now pretty much as frequent as it was ten years ago, and is above the average of the last five years.

With respect to the relative prevalence of the various forms of fever of late, we may leave relapsing fever altogether out of the question, as but two cases of this disease have been admitted into Cork-street Hospital within the last two years. Of the other fevers, it appears that, while typhus and simple fever have been decreasing, enteric fever has gradually increased. Thus, in the year ending September 30, 1870, typhus was above the average during eight months, while the follow-

ing year it was so during four months only. On the other hand, enteric fever was above the average for one month only in 1870, while in the year just ended (September 30, 1871) it exceeded the average during nine months.

It is very difficult to account for this relative and actual increase of enteric fever, as the water-supply of our city is nearly perfect, and drainage operations have been making steady progress. A consideration of the meteorological conditions of the period of increase has also failed to throw any light on the subject. I am myself disposed to believe that the exciting causes of typhus and enteric fevers are more closely allied than it is generally supposed is the case.

I will now proceed to the second part of my subject—namely, the distribution of fever in Dublin.

From the Reports of the Registrar-General already alluded to, it will be seen that, of 1476 deaths caused by fever in the five years ending September 30, 1871, 922 occurred on the south side, and but 554, or little more than half that number, on the north side of the city, divided by the river Liffey. And this difference is not merely due to the larger population of the south side, for the ratios of deaths to population are far higher on the south than on the north, being annually 1 in 746·1 and 1 in 977·3 respectively. Fever would seem to bear an exact proportion to the density of the population, for the latter is 70·8 per acre on the south side and but 57·9 per acre on the north side.

Here it will be necessary to restrict the inquiry to the districts of the city which especially feed Cork-street Hospital. The fever fields of the southern half of Dublin are three in number, and may be distinguished as (1) the Coombe Valley, (2) the West River, and (3) the East River districts. The first of these furnishes by far the largest number of cases, and it presents many special features tending to make it particularly unhealthy. It consists of a hollow, bounded on the north and south by low ridges from twenty to twenty-five feet above the level of its central portions. At its lowest part, near St. Patrick's Cathedral, the elevation above datum is but forty feet, and through its centre a sluggish, polluted stream—the Poddle River—winds its way. Not only, then, is this district the worst situated of any in the city, but it also contains the greatest number of narrow courts, lanes, and densely-populated alleys; old houses, manure-yards, catgut, glue, size, and other similar manufactures; and, besides these, perhaps the most dangerous nuisance of all—numerous dairy-yards. From this Coombe Valley district, in the two years ending September 30, 1871, 1172 cases of fever were sent into the Fever Hospital. These were distributed throughout 753 houses and 156 streets. No less than twenty-six houses furnished five or more cases, and there were ninety-one bad fever-houses, or "fever-nests," in the district. The fever-streets are generally characterised by old—many of them once fashionable—houses; they are not necessarily narrow and tortuous; but even when wide and straight—as Meath-street, the very worst fever-street in the district—wanting proper drainage, without sufficient ashpit and privy accommodation, and surrounded by narrow courts and alleys in the same plight, they breed fever unchecked, and with fearful rapidity. Meath-street, just mentioned, in the two years furnished seventy-three cases of fever, from thirty-six out of a total of ninety-five houses!

The courts are very bad; but I will describe at length a house notorious as being a prolific fever-nest. No. 58, Bridgefoot-street is entered by a passage with a filthy and rotten floor, in which are chinks communicating with the cellar below. The boards are damp and sodden with dirt. The whole upper part of the house is dilapidated, but is yet the best portion of the building. Downstairs, we reach the entrance to a small back-yard—a place ankle-deep with human filth; a privy and ash-pit totally unapproachable without wading through a sea of dirt; a water-tap running, and washing such of the dirt as is within reach into a pipe-sewer, which passes through the cellar of the house, and whose contents are poured through a hole in its side into the latter, converting it into a cesspool. This cellar—or cesspool—lies immediately beneath two rooms which were until lately inhabited by a family of fifteen persons, every one of whom suffered from enteric fever. "*Ab uno disce omnes.*"

I may mention that of the houses furnishing five or more cases, thirteen sent in cases of the three kinds of fever, nineteen gave cases of febricula and typhus, four those of febricula and enteric fever, four those of typhus and enteric, and two those of febricula only.

The remedies for this state of things are not far to seek. They are—cleansing, draining, and clearance; in the last, the abolition of closed courts being included. I would advocate the appointment of sanitary police under the immediate direction of well-qualified Health Officers, and no better could be found than the Poor-law Dispensary Medical men; and, finally, I would appeal to my Professional brethren in general to use their influence with the public to compel the authorities to do their duty, and prevent—under Providence!—the spread of contagious disease in our midst.

THE INFLUENCE OF STARVATION ON WOMAN'S MILK.

M. Decaisne has lately contributed to the Academy of Sciences an important paper "On the Modifications which Woman's Milk undergoes in consequence of Insufficient Food." He begins with a brief notice of the experiments of MM. Dumas Payen and Boussingault, which have shown that the amount of nutriment required for the maintenance of a cow depends upon the weight of the animal, the surplus of food going to form the milk, the quantity of which is found to be proportionate to the excess of alimentation. Under conditions such as these it was found that the cow preserved her weight; but if the same animal was kept upon an amount of food only barely sufficient for its maintenance, it was in a short time observed to lose in weight, the milk being produced at the expense of the animal's tissues—the deterioration of the cow going on with a rapidity proportional to the amount of milk that is secreted. In order to show that a nearly analogous condition of things exists in the case of women, M. Decaisne, availing himself of the circumstances of the siege of Paris, which were especially favourable for observations of the kind, instituted a series of most carefully conducted experiments on forty-three women, whom he divided into the three following groups:—

1. Twelve women, between the ages of 21 and 28 years, whose milk was tolerably good, both as to quantity and quality, and whose children were thriving, although at the expense of the mothers; the women themselves evidently growing weaker day by day.

2. Fifteen women, between the ages of 18 and 33 years, whose milk was deficient in quantity, and found on analysis to be poor in quality. The children of these women fell away, and suffered generally from enteritis.

3. Sixteen women, between the ages of 25 and 32 years, who scarcely gave any milk, and of whose children more than three-fourths were literally dying of hunger.

All the women included in these three groups were in the greatest distress, and had suffered for various periods from insufficient nourishment. M. Decaisne proposed to give *in extenso* the history of these forty-three cases, as soon as he has submitted his analysis to a further examination; but in the meanwhile he limits himself to a notice of three observations (one taken from each of the three groups above referred to), for the purpose of clearly demonstrating the influence exerted by insufficient food on the augmentation of the albumen in the milk and the corresponding diminution of the caseine.

Case 1.—Josephine D., 22 years of age, has two children, the younger of whom has been at the breast for five months. This woman, when seen for the first time on December 2, 1870, was tall and well made, but rather pale. She stated that from the beginning of the siege she had suffered great privation, and often experienced a feeling of faintness and sinking, with a gnawing, griping pain in the region of the stomach. She had not observed any diminution in the quantity of her milk, which she considered to be good in quality, as her child had not shown any derangement of health since the beginning of the siege. On examining the child, M. Decaisne found it robust, with every appearance of health. The entire nourishment taken daily by this young woman during the three weeks preceding the day on which she was first seen had been as follows:—300 grammes of bread, two or three potatoes, about 50 grammes of peas or haricot beans, and the fourth part of a litre of wine. During the five days intervening between the morning of December 4 and December 9, M. Decaisne kept Josephine D. on the following diet:—At 8 a.m., a cup of chocolate made with milk, and 50 grammes of good bread; at noon, a sardine, 30 grammes of salt butter, 200 grammes of horse-steak, 50 grammes of smoked ham, a little gooseberry jam, 200 grammes of bread, half a bottle of good claret, and a cup of coffee without milk; at 7 p.m., rice and sorrel soup,

30 grammes of salted tunny, 150 grammes of preserved beef, 100 grammes of stewed chicken, 50 grammes of apricot jam, half a bottle of wine, and 200 grammes of bread. At the beginning and at the close of these five days, analyses of the milk were made, the results of which will be subsequently given in a table. She was kept upon a sufficiently nourishing diet for two months, by which time she had recovered her health, while her child was also strong and well.

Case 2.—Hortense G., aged 21 years, had suckled her first child for six months, when she was placed under precisely similar conditions to those of Josephine D. When first seen, on December 11, 1870, she was pale, and had lost flesh. Her condition had been aggravated by domestic trouble, and her child was suffering from choleraic diarrhœa. Her daily food during the preceding fortnight had been only 200 grammes of bread, a little bean- or rice-gruel, seasoned with dripping or some other form of fat, with an extra allowance of 100 grammes of horse-flesh every third day. She drank nothing but water, and occupied a damp lodging. Her milk had a thin, bluish appearance, and was scanty in quantity, and her child was losing ground daily. On December 12, M. Decaisne put this woman on the same *régime* as the previous case, but was obliged to stop it on the following day, in consequence of the indigestion produced by the suddenness of the change; but on December 15, after several attempts and suitable precautions, he was able to let her resume the more generous diet, which she bore very well during the five days she was under examination. Means were taken after the experiment to provide the woman with sufficient nourishment, under which she and her child continued in good health. The analyses of her milk are given in the table.

Case 3.—Louise D., aged 29, had been nursing her first child nearly ten months. Her husband had left her for the last three months, and she had been unable to procure work at her regular employment of dressmaking. She presented all the symptoms of constitutional debility, with excessive anæmia, and was suffering from an attack of gastralgia. Her child, whose appearance was strikingly cachectic, had had diarrhœa for a month. She lodged in a damp court, where disease was rife, had no fire, and for a month had lived on a daily ration of 250 grammes of bread, a little rice or ground pease, with an extra allowance of 100 grammes of horse-flesh every two days, pease-soup flavoured with grease, and two litres of wine weekly. M. Decaisne first saw her on December 21, and finding that she, as well as the child, was suffering from diarrhœa and nausea, he began to administer the more generous diet with some caution; but on December 26 the woman was found to be able to bear the full *régime*, which was accordingly begun on that day, and continued for five days, as in the other cases. The analyses of her milk are recorded below.

The child died on January 2, 1871, from the effects of the diarrhœa, which had assumed a most aggravated character.

Composition of 100 *Parts of Milk* (1) *Before and* (2) *After Five Days' Food.*

	Case 1.		Case 2.		Case 3.	
	1.	2.	1.	2.	1.	2.
Butter . .	3·10	4·16	2·90	5·12	2·95	4·10
Caseine . .	0·24	1·05	0·18	1·15	0·31	1·90
Albumen . .	2·20	1·15	1·95	0·95	2·35	1·75
Sugar . .	6·25	7·12	6·05	7·05	5·90	5·95
Salts . .	0·20	0·30	0·16	0·25	0·25	0·31

M. Decaisne considers that we are justified, from these three observations (which are calculated to demonstrate the influence of insufficient food on the proportion of albumen in the milk), in accepting generally the three following conclusions, for which, however, he does not claim the merit of absolute novelty:—

"1. That the effect of insufficient food on the composition of woman's milk presents great analogy with that observed in the case of animals.

"2. That these effects vary according to constitution, age, hygienic conditions, etc.

"3. That insufficient food always gives rise, within varying proportions, to a diminution in the amount of the butter, caseine, sugar, and salts, whilst it augments generally that of the albumen.

"4. That in three-fourths of the cases observed the proportion of the albumen is in an inverse ratio to that of the caseine under an insufficient diet.

"5. That the modifications in the composition of the milk due to a reparative diet always manifest themselves in a striking manner by the end of four or five days."

ANOMALIES IN THE HUMAN SUBJECT IN THEIR RELATION TO THE ORIGIN OF MAN.

Mr. Beswick Perrin has contributed to *Nature* a paper "On an Additional True Rib in the Human Subject." He cites two cases in which an incipient additional rib was discovered in recent dissections at the College of Surgeons, while in two male skeletons (one that of a negro) in the Hunterian Museum he found an eighth sternal rib on the right side.

On examining the higher quadrumana, etc., he "noticed that this additional true rib was present only in one young chimpanzee, but not in the gorillas and orangs. It was present in the gibbon and silvery gibbon, the pig-tailed monkey, macacus rhesus, galeopithecus, and indri. The aye-aye, the slender lemur, and the squirrel-monkey, have each nine true ribs. The grand galago, the awantilo, the slender loris, the douroucouli, and the potto have each ten true ribs.

"The scientific value of this additional sternal rib in a Darwinian sense is (in the author's opinion) simply great. It evinces in a clear and forcible manner a latent disposition in the human subject either to revert to an original and lower condition, or to retain traces of that previous condition. We have already seen that some of the lowest forms of primates have ten true ribs, others have nine, some eight, and others, again, seven, as in the human subject. But it is interesting, indeed, to find that the conflict between the major number (ten) and the minor (seven) takes place in the lower primates. As we pass up to the higher primates there seems to be a decided tendency towards fixity at the number of seven true ribs. But yet a few solitary examples—besides the human subject—illustrate the lower type, as in the chimpanzee already mentioned. The number of ribs in the lower forms of monkeys seems to be a repetition of that of the carnivora, and subject to the same fluctuations between seven and ten true ribs. Although the few specimens which I have examined of the higher primates show a decided tendency towards fixity at the number of seven, yet I believe that in a very large number of skeletons of each of the higher species various transitional grades would be met with closely according with those in the human subject. It is somewhat remarkable that each of the variations of the eighth rib in the human subject which I have described should all be on the right side.

"From the preceding facts," Mr. Perrin thinks, "it may be inferred that the tenth, ninth, and eighth true ribs are gradually lost in the transition from the lower to the higher primates, except in a few isolated examples. The recurrence of the eighth true rib in the human subject cannot be looked upon as an accident, any more than the presence of a distinct peroneus quartus, and a moderately large extensor primi internodii hallucis coming from the tibialis anticus, exactly as in the chimpanzee, in the same individual whose sternum with an almost complete eighth rib has been described."

The Local Government Board.—Mr. J. N. Radcliffe has been despatched by the Board to investigate the causes of the excessive mortality at Sunderland. Dr. Brydges attended the St. Olave's Board of Guardians on Thursday, and urged the extension of the Rotherhithe Infirmary, at a cost of £15,000.

Health of Scotland for the Three Months ending September 30, 1871.—16,835 deaths were registered during the quarter ending September 30, being in the annual proportion of 200 deaths in every 10,000 persons, or 2 per cent. The mean death-rate of the quarter during the ten previous years was 195 deaths in every 10,000 persons, or 1·95 per cent.; so that the death-rate of the past quarter has been above the average. Of the eight principal towns, the mortality during the quarter was lowest in Aberdeen and highest in Glasgow. Thus, for every 1000 persons in each town, there occurred the proportion of 18·6 deaths in Aberdeen, 20·7 in Perth, 23·5 in Leith, 23·7 in Greenock, 24·2 in Edinburgh, 24·4 in Dundee, 26·2 in Paisley, and 30·0 in Glasgow. Of the deaths, 5694 were registered during July, 5774 during August, and 5367 in September, being at the rate of 184 deaths daily during July, 186 deaths daily during August, and 179 daily during September.

GENERAL CORRESPONDENCE.

THE INFLUENCE OF AGGREGATION ON THE MORTALITY OF LYING-IN WOMEN.

LETTER FROM DR. JAMES MATTHEWS DUNCAN.

[To the Editor of the Medical Times and Gazette.]

SIR,—It is very desirable that the true position of the argument on this extremely important question should be known. It is in order to state it that I now address you, and it is imperative on me to do so, not to correct misrepresentations of my views and arguments, but to correct gross misrepresentations of the present state of the great question, whether or not aggregation is a cause of increased mortality of lying-in women.

It is well known that, following up doctrines lately strongly urged as to the baneful effects of general Hospitals, Dr. Evory Kennedy attempted to prove, by statistics, that aggregation of lying-in women in the Dublin Hospital was a potent cause of much mortality in that special institution. Among others, I contested the validity of his arguments, on grounds whose value no one has attempted to dispute, although many have failed to see their force, and have ignorantly described them as if they were mere beating of the air. But such incorrect description does no harm to arguments which are incontrovertible. To advance the solution of this question a stage, it is necessary to get new arguments for or against Dr. Kennedy's opinion. His arguments have been shown to be unsound.

Such statements as the following (and there have been several), which I extract from page 625 of the number of the *Medical Times and Gazette* for November 18, are very misleading, and have stimulated me now to address you. Speaking of Miss Nightingale's recent work on lying-in institutions, the anonymous writer says—"She refers to Dr. Matthews Duncan's suggestions for the improvement of the records of obstetric practice; but without attempting to explain the enormous variance between the conclusions of that gentleman and of Dr. Evory Kennedy, on the influence of aggregation on the mortality of lying-in women—the latter from the statistics of the Rotunda Lying-in Hospital, in Dublin, having, as our readers must be aware, formed the opinion that aggregation immensely increases the mortality; and the former, from the same records, treated in a different way, having drawn exactly the opposite inference—that the mortality in the Rotunda Hospital was lowest during the periods in which the greatest number of women were delivered."

Now, in this, and similar statements in periodicals which I might quote, there are many grave errors which indicate total misapprehension of the state of this important question. I shall give them one after the other.

1. Dr. Evory Kennedy did not form an opinion about the influence of aggregation. He believed, and said he had demonstrated or proved, its terribly adverse influence in the Dublin Hospital. This differs from forming an opinion. When I pointed out that the mortality was lowest during the periods in which the greatest comparative number of women was delivered, I was not drawing an inference exactly opposite or of any kind—I was merely stating a fact, which anyone can verify for himself in a moment.

2. I did not draw the exactly opposite inference to that of Dr. Kennedy. I drew no opposing inference. I showed incontrovertibly that Dr. Kennedy's reasoning was erroneous, and that, therefore, his conclusion was not proved. He used only partial or selected data.

3. I showed that the whole data of the Dublin Hospital—not partial or selected data—if used in the way that Dr. Kennedy used the data he employed, would prove the exactly opposite inference to that of Dr. Kennedy; but I said that to hold them as proving such an opposite inference would be to commit a logical error. I therefore disclaimed the opposite inference, instead of drawing it.

4. I said that the data of the Dublin Hospital appeared to support the opposite inference—but only *appeared* to do so. I never dreamt of maintaining the opposite inference—namely, that the greater the aggregation the greater the safety to lying-in women. Nor did I ever hear of anyone doing so.

5. When critics speak of Dr. Kennedy and me as using the same data, they make a great mistake. Data selected and partial are totally different from the whole data without selection or partiality. Data are not the same, although taken from the same heap, or the same Hospital's records.

Dr. Kennedy's views as to aggregation may turn out to be true, notwithstanding all I have said; and if they are true, all I have said will remain true also—incontrovertibly true. I could suggest many ways of explaining the fact of the mortality being diminished though the aggregation was increased, while it was held as true that aggregation increased mortality. I shall only reluctantly give one way. It is easy, for example, to imagine, and even believe, that when there were few delivered, the few included especially the urgent, bad, dangerous cases; while, when there were many delivered, the excess over the time of few was composed especially of healthy women drawn to the Hospital only by poverty. In such circumstances the injurious influence of aggregation might be overshadowed or overpowered by the badness of the cases when they were few and by their more generally prosperous character when they were many.

As I have elsewhere said, it is intensely desirable that the influence of aggregation should be determined. Possibly this statement or explanation of the present position of the argument about it may contribute to the attainment of the desirable result.

I am, &c.,

Edinburgh, November 18. J. MATTHEWS DUNCAN.

DISTRICT MEDICAL OFFICERS AS OFFICERS OF HEALTH.

LETTER FROM DR. JOSEPH ROGERS.

[To the Editor of the Medical Times and Gazette.]

SIR,—The questions raised by Dr. Druitt, in his address at the last meeting of the Association of Medical Officers of Health, are of such present public interest that I shall be obliged, if you will permit me, briefly to refer to some of them.

Dr. Druitt's statement as to the want of harmonious co-operation between the Medical Officers of Health and the District Medical Officers under the Poor-law has been long known to be correct by all those who have watched the practical working of sanitary superintendence since the introduction of Sir Benjamin Hall's Act, and the various other enactments subsequently adopted by the Legislature for amending the state of public health; the explanation being that the District Medical Officer has, not unnaturally, objected to the imposition of any additional obligations beyond those for which he has been so badly remunerated. But if those who frame our Acts, on the one hand, or those who have to carry them into practical effect, on the other, had been at all up to their work, they would have availed themselves of the opportunity afforded by the introduction of the Poor-law Dispensary system in the metropolis to secure that harmonious action so much to be desiderated; for District Medical Officers would not have had cause for complaint if such arrangements had been made that, when relieved of the cost of providing and the labour of dispensing drugs, a *quid pro quo* had been demanded in the shape of reports as to the insanitary condition of their respective districts. Of course such a proposition would have necessitated that some diminution of the size of districts and equalisation of payment for the number of cases annually attended should have at the same time been enforced.

I refer to this point particularly, because, if success should attend our efforts to extend the Dispensary system to the provinces, the suggestion I here make could be turned to useful account.

It will be seen from this that I entirely agree with Dr. Druitt in considering that it should be the duty of the Health Officer to make himself acquainted with all and every local circumstance bearing on the maintenance of the public health. Again, I agree with him that the preventive and curative services should go together, but I should only be disposed to recommend this so far as it applies to the duty proposed by the Royal Sanitary Commission to be superadded to that of the present Parochial Surgeon (whose name, whether altered to that of Civil Surgeon as Dr. Druitt recommends, or Dispensary Medical Officer, which, I expect, would be his future title)—viz., that of reporting the existence of epidemics and all circumstances calculated to prejudice the public health, in the first instance, to the local authority, by whom it would have to be transmitted to the Health Officer of the city or division of the county, as the case might be; and who would, in case of contumacy on the part of those causing a nuisance, be enabled to direct proceedings with the view to its removal.

I have said I would limit the double duty solely to the District Medical Officer. My reasons for objecting to curative duties being superadded to those of control and prevention in the higher class of Health Officers are—that if combined with

private practice I fear their efficiency would be marred, first, by the jealously that might be excited amongst other Practitioners, secondly, by the natural fear they would entertain lest activity in their duties should give offence to opulent or influential consultants; or, if trammelled with public occupations, such as that of an Hospital, by the encroachment on their time, which, I hold, would be sufficiently taken up if they had the supervision of a considerable area, more especially if it should hereafter become their duty to undertake the various obligations shadowed forth by Dr. Druitt.

I am aware that much might be said as regards the view entertained by Dr. Druitt as to the "responsibility of attendance on the sick being an inducement to keep pace with the day"; but I think that the difficulty may be got over by providing that no superior Health Officer should be appointed until he had given proof that he had been engaged—say fifteen years at the least—either in general, Physician's, or Hospital practice, exception being made in favour of those who had shown by competitive examination their fitness for the special requirements demanded of such superior grade of Health Officers.

In conclusion, I should like it to be understood that I am firmly of opinion that no scheme of sanitary control will ever work satisfactorily so long as the provincial District Medical Officer remains in his present anomalous and degraded position. The Dispensary system must be, therefore, first extended to the provinces; all the other changes which have been proposed will then have a firm basis on which they may be built up.

I am, &c.,

Dean-street, November 23. JOSEPH ROGERS.

THE EDUCATION OF WOMEN IN MIDWIFERY.

LETTER FROM DR. J. BRAXTON HICKS.

[To the Editor of the Medical Times and Gazette.]

SIR,—The proposal of Miss Nightingale, that ladies should be educated as Physicians-accoucheuses, and not as Medical Practitioners, to take charge of lying-in institutions, is one which opens up an important question which requires careful consideration. Without expressing any opinion as to the adaptiveness of women to learn and practise Medicine, or as to the expediency of such a step, I do most strongly feel that the views of some of the advocates for the education of women in midwifery are very deficient in precision. And this remark applies to many members of our Profession, who, either from their inattention to the subject, or from their habitually regarding midwifery and the diseases of women as something beneath general Medicine and Surgery, have given expression to the idea that women might be educated so far as to attend labours and women's and childrens' complaints, but not educated up to the standard required for the treatment of general diseases.

Against this argument I most energetically protest. To stand by whilst natural labour is being accomplished, I admit, requires little more than patience; but we must reflect that the after-treatment, and often treatment before delivery, is intimately mixed with the most intricate questions, which only those accustomed to treatment of general disease can hope to combat. Need I allude to the very intimate connexion between puerperal fever and the zymotic diseases; the necessity of distinguishing cellulitis from peritonitis; and the importance of a competent knowledge of the treatment of this latter disease. How can the vomiting of pregnancy, the œdema of pregnancy, and puerperal convulsions, puerperal mania, and a long list besides, be treated by a person only partially acquainted with these conditions? Again, the diseases of women, as far as my experience goes, require a still greater knowledge of general Medicine than midwifery proper, and I am sure that any attempt to allow anyone with a partial knowledge to treat them will be attended by most serious consequences. I am horrorstruck with the thought of the employment of the sound, of powerful caustics, of the hysterotome, of tents, etc., by the half-educated. It cannot be but that if women practise at all they must be taught completely, and give proofs of competence equal in general subjects to that required from their contemporaries of the other sex.

But involved in the question there is one other, much forgotten, but of great importance to the Profession at large. If midwifery and the diseases of women are taught separately, a separation takes place, and what will then occur? A "speciality" is set up, and all the disadvantages of "specialism" in its worst form will occur. Imagine a school beginning in imperfect education, continuing in the same, without the opportunity of studying diseases generally, unable, by reason of that want of general knowledge, from fully discussing with those of the Profession who have! Thus the very advantages gained by ourselves and the public of late years, through the practice of midwifery by fully educated Medical men, will be much lost, a branch of the healing art will be retarded, and, collaterally, the Profession also.

It follows, therefore, if the views here expressed are correct, that if women are to practise they must either be as fully educated as their contemporaries of the other sex, or not at all; and, still further, that their knowledge must be in strict unity with that of the general mass of the Profession—or how would Medicine fare if there exist two schools running side by side, with only a partial interchange of ideas?

The case, of course, is different where midwives act under Medical supervision as their *locum tenens*, for they can always call in assistance in abnormal cases. The advantage of the education of a greater number would be of great service in many parts of England in the place of the ignorant and totally uneducated. But upon this point I need not dwell.

I must apologise for thus intruding on your space, but I fear lest the influence Miss Nightingale possesses so justly, and the admiration in which all hold her, would divert many from foreseeing the natural tendency of the step suggested by her and by many others interested in the welfare of women.

I am, &c.,

J. BRAXTON HICKS, M.D. Lond., F.R.S.

98, St. Thomas's-street, S.E., November 18.

A CLINICAL URINOMETER.

LETTER FROM DR. JAMES WILSON.

[To the Editor of the Medical Times and Gazette.]

SIR,—The daily use of a three-inch clinical thermometer has suggested to me how invaluable to the general Practitioner a three-inch urinometer would be. The ordinary one requires a vessel or tube to be carried along with it, and although both in one case, occupies too much space in the pocket. A wine-glass—to be had in every house—would be suitable for holding the urine, with a three-inch clinical urinometer.

I am, &c., JAMES WILSON.

Cromlet-bank, Old Meldrum, N.B., November 20.

TREATMENT OF GUNSHOT WOUNDS.

[To the Editor of the Medical Times and Gazette.]

SIR,—It is much to be regretted that Medical men are acquiring the habit of addressing the editor of the *Times* on matters purely Professional. The subject can rarely be of real interest to the public, and such communications are only liable to mislead. Medical men who do this are exposed to having their motives interpreted in several ways, and possibly to the disadvantage either of themselves or their brethren. It is impossible to understand what good can result from Mr. Wyatt's letter on the above subject, or what his precise motive was.

November 22. I am, &c., F.R.C.S.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

FRIDAY, NOVEMBER 10, 1871.

DR. W. W. GULL, F.R.S., President, in the Chair.

MR. CHRISTOPHER HEATH read a paper "On a Case of Wound of the Intestine during Ovariotomy, with recovery." The patient was under his care in the Hospital for Women, in November, 1870, suffering from an ovarian tumour, which had been repeatedly tapped, and for the removal of which an attempted ovariotomy had been undertaken by another Surgeon a year before. The patient was worn out with pain and sickness, and was anxious that another attempt at ovariotomy should be made. This was undertaken by Mr. Heath on November 25, 1870, when very extensive adhesions to the surrounding structures were found. On enlarging the abdominal incision with scissors in the ordinary way, an empty coil of small intestine, which was closely adherent to the wall, was divided in three-quarters of its circumference. The removal of the cyst was accomplished with considerable difficulty, the pedicle being

tied and dropped. Mr. Heath then attached the bowel to the skin with silk sutures, forming an artificial anus, and closed the abdominal incision with wire sutures. The patient made a perfectly good recovery, fæces and flatus passing by the artificial opening on the second day, and solid motions per anum. The silk sutures were removed on the eleventh day, and the patient was moving about at the end of a month. Three applications of the actual cautery were made to the edges of the fistula to contract it, but it did not close, and the patient left the Hospital in April, 1871. She was presented to the Society in a very comfortable and healthy condition, the use of a belt and air-pad satisfactorily retaining all fæcal matter, and the patient having regular stools.

Mr. Maunder thought the moral of the operation to be that we should be cautious in such circumstances not to use scissors.

Dr. Edis had been present at the operation, and alluded to the difficulties of the case. He believed that the accident was unavoidable, and that Mr. Heath deserved all credit for having shown himself equal to the occasion by taking care of the gut, and sewing the cut edges to the abdominal wall, instead of leaving the injury alone in the belief that there was no hope for the patient.

Mr. John Scott also referred to the unusual difficulties of the operation, at which he was present. Had a director been used, the result would have been the same as had occurred in the use of the scissors. The gut could not be separated from the peritoneum.

Mr. De Morgan, in expressing surprise at the favourable termination of Mr. Heath's case, referred to the extraordinary differences observed in the recovery of patients from ovariotomy. Cases in which great interference with the abdominal viscera has been found necessary, the tumour being perhaps torn away, recovered; while others, presenting the most favourable conditions for operation, proved fatal. He then related several illustrative cases, and expressed his opinion in institutions, with showed great aptitude and skill in treating to Dr. Matthew.

Mr. Lawson remarked that serous membrane of the recordad been long inflamed, might be interfered with, acting to exply great extent—as, for instance, the tunica vaginalis of the testis might be dissected out without producing alarming symptoms.

The President, after complimenting Mr. Heath on his honesty in bringing forward the case, expressed his desire to know in what position of the small intestine the opening was, and what Mr. Heath had to say about the propriety of using the scissors.

Mr. Heath, in reply, said that he was in the habit of using the fingers first, but was not prepared for the existing state of things. He disagreed with Mr. Maunder, however, about the use of the scissors in the case. He could not give any definite answer regarding the position of the wound in the intestine. The contents hardly possessed a fæcal odour.

Dr. John Murray read a paper "On Thoracentesis in a Case of Simple Pleuritic Effusion." The patient, a healthy-looking and muscular man, aged 38, was the subject of very extensive serous effusion into the left pleura, the heart being pushed completely over to the right side of the chest, and the left lung completely compressed. His respiration was generally about 30 per minute, his pulse 120, and the temperature 101°. Although the acute symptoms had subsided a month after the commencement of the attack, and a fortnight after the pleura had become completely filled, still there were no evidences of diminution of the fluid, notwithstanding many of the usual remedies having been tried. The ultimate and complete recovery of the left lung was being endangered, and the healthy one and the heart and large vessels interfered with, while the man's general health was suffering. Dr. Murray decided to employ thoracentesis. Accordingly, Mr. Hulke performed the operation, and drew off thirty-five ounces of clear serous fluid by means of Nyrap's modification of Bowditch's aspirator, the trocar being passed into the chest between the fifth and sixth ribs, where the digitations of the serratus magnus meet those of the obliquus externus muscles. The effect of the operation was to diminish in six hours the respirations, pulse, and temperature in a remarkable manner. Ten days after the operation, all evidences of fluid were gone, and vesicular breathing had returned to a considerable extent over the upper two-thirds of the lung. He was discharged five weeks after the operation with evidences of a good recovery. The breathing and percussion resonance were still deficient over the left side, and friction was everywhere heard; but he suffered no inconvenience from the last symptom, and appeared in excellent general health. Dr. Murray thought that paracentesis thoracis was the proper treatment in this patient's case; and expressed his opinion, after quoting the experience of Dr. Bowditch, of Boston, and others, that in all cases of extensive and uncomplicated serous effusions, the operation should be performed at least immediately after the subsidence of the acute symptoms.

Dr. Moxon related a case in which the patient rapidly recovered during treatment by the dry method—by diminishing the amount of fluid in the diet; and asked Dr. Murray if this plan had been adopted in his case.

Dr. Anstie referred to the dry method of treatment as painful and doubtfully effective. He asked why we should continue to give, in such cases as that brought forward, iodide of potassium, diuretics, and the like, when we had the means of withdrawing the fluid at once in a safe manner. If properly performed by Bowditch's aspirator, air need not enter the pleura, and the operation produced little or no pain. The trocar furnished, also, the means of completing the diagnosis without harm.

Dr. Playfair testified from considerable experience to the good results obtained by the operation. When the fluid was serous, as much should be removed as would allow the remainder to become absorbed; but the aspirator was costly, and the fluid might be readily withdrawn by a tube under water. In empyema, when it was desirable to effect a continuous drainage, to reduce absorption to a minimum, he was in the habit of employing, at the Evelina Hospital for Sick Children, with much benefit and comfort to the patients, a plan whereby this constant drain was kept up by passing into the chest a drainage-tube, which was conducted below the bed and kept under water. By this means he had found a rapid diminution of pus in a very short space of time.

Dr. Thorowgood thought that the operation was now much more successful; but this was due, not to the complicated instruments in use, but to a more careful selection of cases. In empyema he thought it a matter of little importance whether air were admitted into the pleura or not.

Dr. Wilks asked what advantage the instrument employed in the present case possessed, and whether it assisted the lung to expand.

Dr. Douglas Powell remarked that the principle of the instrument was that, by means of a fine trocar, a large quantity of fluid which might not come out was withdrawn by suction. He thought the object should be to withdraw a certain amount, to allow the rest to be absorbed. He believed it to be of importance in empyema to withdraw the fluid without admitting the air.

Mr. De Morgan referred to his having, he believed, been the first Surgeon to adopt the plan of putting a tube through the chest in empyema. He doubted whether Dr. Playfair's plan would be of much advantage in purifying the pus in those cases in which it becomes putrid.

Dr. Edis alluded to the stress which Dr. Bowditch laid on the early performance of the operation, the value of which had been borne out in his own experience.

Dr. Althaus said that the application of electricity was known to cause the absorption of fluid from some serous sacs, as in hydrocele, and referred to a case of ovarian dropsy abroad in which a similar result had ensued, and suggested this mode of treatment in pleuritic serous effusions.

Dr. Barclay had always found simple pleuritic effusion very amenable to treatment, and would like to know what were the advantages of the operation.

Dr. Duffin spoke in favour of thoracentesis, and pointed out that, by allowing the functions of the organs to be interfered with, and the organs dislocated, absorption of the effusion became thereby diminished.

Dr. John Ogle referred to the experience at St. George's Hospital, which was favourable to the operation. He alluded to a case in which the patient had died during the operation.

Dr. Duckworth, in advocating the great advantages of thoracentesis, observed that, if the chest refilled, it might with safety be tapped again and again.

Dr. Langdon Down related his experience of this method of treatment, which was favourable. He had recourse to the operation in five cases—in one to relieve dyspnœa, and in the others to save time.

The President pointed out that several things were being discussed by the members. The case in point was one of simple catarrh of the pleura, and the question was, whether such cases should be left to dry up or not. The issue was, Did the operation hasten the recovery? He alluded to the remarks which had been made on the supposed value of diuretics in pleuritic effusion, and said that he had thought all such opinions had been now given up. His own practice in simple pleuritic

effusions had always been to get the patient hungry and keep him hungry.

Dr. Murray, in reply, said that the question discussed in his paper was limited to thoracentesis in simple and extensive pleuritic effusion—a plan of treating such cases which he strongly advocated immediately the acute stage had passed off. By this means the chest is at once relieved, and practically without danger, if done carefully with the aspirator. The sufferings of the patient are in every way diminished, the danger to the compressed lung is reduced as far as possible, and much time is saved in getting rid of the fluid, as compared with the old plan of treatment by diuretics and the like. Moreover, the operation may be repeated again and again, if need be. Why, then, not withdraw the fluid by this means? He had found no difficulty on one occasion in drawing off under water fluid from the pleura by means of a common trocar and piece of tubing. The advantages of the aspirator over such a plan lay chiefly in this—that a fine trocar could be employed, and more fluid could frequently be withdrawn, aided as it was by suction. The instrument, he thought, had, however, no influence in expanding the lung.

MEDICAL SOCIETY OF LONDON.

Monday, October 23.

Mr. Weeden Cooke, Vice-President, in the Chair.

Mr. Spencer Watson showed a case of Traumatic Dislocation of the Crystalline Lens into the Anterior Chamber. Glaucomatous symptoms were set up, with very severe pain and intra-ocular tension. The lens was extracted through an incision made in the ciliary region of the sclerotic at the lower and outer side. The result was good; useful vision was retained four months after the operation. The operation was performed in consequence of the generally unfavourable results following the scoop and flap extractions in similar cases, and partly from the occasionally good results following rupture of the eyeball and escape of the lens through a rent in the margin of the sclerotic. The choroid had been injured by the accident. Case 2, S. A., aged 14, Congenital Displacement of both Lenses. When the pupils are natural in size the irides are tremulous, and when the eyeball is moved inwards the pupil becomes oval, and the plane of the iris near the pupil is obliquely inclined on the inner side, as if from the lens pushing it forwards at that part; there is a slight divergent squint, and the child's aspect is peculiar. The child's father has defective sight, but the sight of the mother and of a younger child is good.

Mr. Henry Smith then related an interesting case of Lithotrity followed by Lithotomy. The crushed stone was shown. The patient was a healthy country gentleman, aged 70, who was determined to have lithotrity performed. The bladder was healthy, and tolerant of the sound, the urethra capacious, and the stone of a size convenient for crushing. The stone was seized without trouble, and crushed in a few seconds. In forty-eight hours violent inflammation came on, and his life was placed in peril. In ten days he was free from danger, and then consented to have lithotomy performed. The lateral operation was done, and he made a speedy recovery. Mr. Smith thought that a second operation of lithotrity would have proved fatal. Sir B. Brodie has pointed out that sometimes a second crushing operation removed the symptoms of inflammation.

Mr. Bryant called attention to the extreme importance of a course of sounding. In stricture and stone in the bladder, especially in the latter, the passage of a sound may set up urethral fever. In a case of stone, for which lithotrity was proposed, he sounded several times; on the third occasion the lithotrite failed to detect the stone, and the operation was postponed. Rigors and much constitutional fever set in, and the patient died on the fifth day. Disease of the kidneys was present.

Mr. Smith admired Mr. Bryant's courage in bringing the case forward. Two years ago he had, in King's College Hospital, a strong, healthy agricultural labourer with a small stone in his bladder. The stone was taken up with a lithotrite, measured, and let fall again, no violence having been done. Severe inflammation ensued, followed by death in ten days.

Mr. John Gay read the abstract of his paper "On Hypovenosity of the Lower Limbs." The disorder was due to inefficiency in the saphenous system of veins, followed by deep vein-dilatation and embarrassment. The outlines of bone, muscle, and tendon become gradually effaced, the skin becomes of a dusky colour, the whole limb dense or brawny, and muscular action difficult and painful. There is scarcely a vein to be seen, except it may be here and there, and then as a thin blue line, which exercise or heat fails equally in filling. Degeneration and consequent incompetence of the saphenous veins and their branches is its direct or exciting cause; whilst its remote cause is phlebitis, especially in its gouty or rheumatic forms. The treatment is the reverse of that ordinarily employed—viz., an entire freedom of the limb from all compression; enforced walking, begun in moderation and periodically increased; hot application, especially hot sea-water, to the limb; and, it may be, the internal administration of the liq. potassæ—in short, by the use of all those measures, hygienic and therapeutical, which can, on the one hand, restore the circulation of the limb, upon the principle that its use is its stimulus to health and perfection, and, on the other, relieve it of its superabundant fat.

Mr. De Méric, Dr. Routh, Mr. Bryant, and Mr. Weeden Cooke took part in the discussion.

ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.

Saturday, November 18.

Dr. Druitt, President, in the Chair.

The President read a paper "On the Position and Duties of Medical Officers of Health." After some introductory observations, he said:—I wish to bring before your consideration the general sanitary organisation of the country, and the means by which the greatest work may be done with the greatest economy. This subject is more peculiarly appropriate just now, when a most important reform has been effected in the central administrative offices, which would be well extended, according to the recommendation of the Royal Sanitary Commission, to the smallest areas of authority.

The reform I speak of is that effected by the Act 34 and 35 Vic., c. 70, "For constituting a Local Government Board, and vesting therein certain functions of the Secretary of State and Privy Council concerning the Public Health and Local Government, together with the powers and duties of the Poor-law Board." This Act, in fact, consolidates into one body the various authorities which heretofore looked after the Public Health, the Relief of the Poor, and Local Government. The Poor-law Board, *eo nomine*, is abolished, so is the Medical Department of the Privy Council. All the powers and duties of the Secretary of State relating to Registration, Public Health, Local Government, Drainage, Sanitary Matters, Baths and Washhouses, Public Improvements, Towns' Improvements, Artisans' and Labourers' Dwellings, and Local Taxation; and all the powers and duties of the Privy Council relating to Vaccination and the Prevention of Disease are made over to this new Local Government Board, and thus the first step is taken, in the words of the Report of the Royal Sanitary Commission, to "consolidate the present fragmentary and confused Sanitary Legislation."

How fragmentary and confused that legislation was and is, must have been felt with great bitterness and vexation by every Officer of Health originally appointed in 1856. The very functionaries under whose authority we acted were liable to shift with varying conditions. The "local authority" in most Metropolitan parishes was elected to carry out the "Nuisances Removal Act"; and if it were desirable to use the apparently larger powers given by the "Metropolis Local Management Act," that could only be done by the vestry itself; and if the Nuisances Removal Committee attempted to use the powers of both Acts (as happened in a notable instance in one parish), it was defeated at law with costs. On the appearance of the last epidemic of cholera, it was found in some places that the Medical Officer of Health, together with the authority which appointed him and under whom he acted, was superseded through some flaw in the Diseases Prevention Act put in force by the Privy Council. This was, if I mistake not, the case in the City. Our ordinary functions had to be carried on under a variety of authorities, all jealous of each other. The vestry, as a whole, was jealous of the Nuisances Removal Committee of its own appointment, and seemed to delight in thwarting and crippling them. Our knowledge of the existence of sickness amongst the poor was obtained from the books kept by the Parochial Medical Officers, the permission to consult which was rather grudgingly given by the guardians of the poor. Our knowledge of mortality was got from the Registrar-General, whom

we may name as an example to all functionaries from his liberality. With regard to the Medical officers who undertake the curative treatment of the poor, there was often felt to be a want of harmonious action. Questions of a very innocent and natural character, asked by the Medical Officer of Health in visiting premises where there had been sickness, are said to have been resented by the Parochial Medical Officer, as if a Medical Officer of Health had no business to inquire into the sufficiency of diet or any matter which especially belonged to the other functionary. Information as to the existence of sickness was not given as it might have been by men who were, as it were, fellow-servants of the same master; but for that I blame not the Parochial Medical Officers, because I blame no man for resisting the imposition of fresh tasks without payment. But the harmony and co-operation such as existed was friendly, and personal, and voluntary, rather than official and necessary. On more than one occasion I have known of a sort of conflict between a Medical Officer of Health who wished premises to be emptied and purified after fever, and a Parochial Medical Officer who interfered to certify that the patients were not in a fit state to be removed; and so the premises remained unpurified an unconscionable time.

Not only was the work of the Medical functionaries not harmoniously blended, but in the Sanitary Department, properly so called, there was a want of organisation. The Inspector of Nuisances held an independent appointment under the Metropolis Local Management Act, with certain duties and powers; and there might be, with a half-educated, presumptuous man, a tendency to set up his own dignity, and act independently as far as possible.

I hold it to be the bounden duty of every Medical Officer of Health to make himself acquainted, by personal inspection and measurement, with the nature of the house accommodation of all classes, the quantity of cubic space, the degree of ventilation, the rents, the water-supply, the drainage, and what the class of occupants, the density of the population, the proportion of the sexes—particulars which my learned colleague and myself did not neglect, as our published reports and the evidence given before the Royal Sanitary Commissioners may testify. Thus armed, the Medical Officer of Health is able, from an inspection of the sickness returns in those houses, to see if the prevalent diseases are connected with the periodically recurring impurity which must affect the latrines, the drains, the water-butts, etc., of closely crowded houses. But, having this knowledge, which may enable him to check, as it were, any information brought him, he surely need not be subjected to the fatigue and loss of time requisite for personal inspection in every case of illness; but the curative Medical officer ought to inspect the general state of the house and report to him at once, so that remedies might be adopted without delay.

What I mean will be more clear by an example. There is no disease respecting which prevention and cure ought to go hand-in-hand more than diarrhœa. There are three things which may be affirmed about it. One is, that simple diarrhœa, *per se*—like the other diseases with discharge from mucous membrane—is, under certain conditions, infectious. I have known diarrhœa spread in a nursery to the nurse and elder children, when set going by the very offensive pale motions of an infant cutting its teeth. Secondly, diarrhœa may be a symptom of typhoid fever, or, thirdly, of cholera; and patients not laid up with all the specific symptoms of these two last-named maladies may yet be subjects of diarrhœa, which shall convey the whole disease to other persons—just as one scab of modified small-pox may be the germ of thousands of cases of the worst forms. As these dangerous forms are not always recognisable at sight, every case of diarrhœa ought to be suspected, and the evacuations be disinfected. The preventive remedy and the curative ought to go together. With the medicine for the diarrhœa ought, in epidemic seasons, to go the packet of disinfectant. Moreover, in every zymotic disease, the fæces may be the vehicles for diffusing germs of contagion. As things are managed at present, the evacuations of a person ill with scarlet fever may be deposited in the imperfectly cleansed latrine visited by a score of children, besides being allowed to diffuse their odours through the house on their way thither. The moral is, that some disinfectant should be distributed to every house where any one of these contagious maladies prevails, and that it should be the duty of the curative officer who visits the sick to see that the disinfectant is properly applied, and that instant notice be given to the preventive Medical officer. Whereas, as things are, a poor patient may be treated for diarrhœa at some Hospital out-patient room, where no notice is taken of his name or address; or he may be treated at a Dispensary, where, although the name and address are entered, six, seven, or eight days may elapse between the outburst of the disease and the giving of information to the Medical Officer of Health. As things now are, it is no part of the duty of any voluntary charity, nor yet of the curative officers, to give the early information that is requisite for prevention, or to take other means to the same end.

The gist of my observations will be seen to be the recommendation of a fusion of the preventive and curative functions —the *non bene junctarum discordia semina rerum*—which at present exists; and the organisation of sanitary districts in such a way as to save labour and time, and to hinder two people from going over the same ground.

As you are aware, amongst the recommendations of the Royal Sanitary Commissioners is one to the effect that there shall be one Local Health Authority in every district, and not more than one; and that every Local Health Authority shall have a Medical Officer of Health—and it is suggested that the Poor-law Medical Officer shall be that Medical Officer of Health in rural districts; and that every such officer should have the power of an Inspector of Nuisances—that is, power to enter upon premises, and inspect and order what is necessary to be done without special authorisation in each case from the "Local Authority." We may rejoice in the hope that preventive Medicine will thus be put on a level, if the recommendations of the Commissioners become law, with curative Medicine, and that the powers necessary for abolishing the causes of disease will be conferred on the indefatigable and humane and intelligent Practitioners who now attend the poor. Don't let me be supposed guilty of the wish to impose new and unpaid duties upon the present holders of Poor-law offices. I should wish their status and emoluments raised, and that they should be regarded as "Civil Surgeons," or have some other attractive title. As the Poor-law Board has been abolished, so should Poor-law Surgeons. The same reform, it may be hoped, will be carried out in London; one law for the whole kingdom, and that the Civil Curative Officer will everywhere work with and under the Medical Officer of Health. I do not hesitate to use the word "under," not in any invidious or derogatory sense, but simply because higher qualifications ought to be exacted from the Medical Officer of Health—his duties ought to be more of an inspectorial order, and less compatible with general practice; and amongst gentlemen there can be no bickering arising out of supposed difference of status. The Curative Civil Surgeon, by having preventive and sanitary duties attached to his present ones, ought to have increase of status and pay, and no honest man need be ashamed to give proof that his work is genuine.

And this leads me to another branch of this subject. We, as Medical Officers of Health appointed under the Metropolitan Local Management Act, must have felt that we were isolated; responsible only to those who appointed us, but with no definite relation to each other, or to any central inspectorial body. Every parish has its own standard of duty, and its rate of salary, and the reports of no two parishes agree in size, style, and period. For my own part, I always regretted the want of inspectorial visitation by a superior authority, who should harmonise the work of various parishes, and combine the results of all in one metropolitan sanitary report. In all that I say, gentlemen, you will agree, I hope, in seeing that I have no wish to promulgate opinions which if put into practice would disturb the present holders of offices; but, looking at the thing in a practical light, I affirm that there would be immense benefit if the actual Civil Surgeons were subject to visitation and inspection by Medical Officers of Health, and if Medical Officers of Health were themselves subject to the same control from a central office, and if for this purpose every institution—be it Hospital or Dispensary—supported by voluntary contributions which undertakes the treatment of the poor were placed in the same category.

Thus, I urge that a portion of preventive treatment should be required at the hands of the curative officers, both in town and country, and that the whole of their work, preventive and curative, should be subject to the inspection and criticism of the Medical Officer of Health of the district, or Superior Civil Practitioner (the term Medical Officers of Health is imperfect, because liable to be confounded by foreigners with the *Officiers de Santé*, an inferior class of Practitioners), just as the Superior Civil Practitioner ought to be subject to the same control from the Local Government Board. The only defect I see in the recommendations of the Royal Sanitary Commissioners is the want of some consulting and inspectorial referee nearer than the Local Government Board in London. Let us take the case of a wide district, rural or partly manufacturing. The duty of reporting on local and scattered insanitary conditions, and

the recommendation of remedies, ought to belong to the Civil Surgeon, or, as we now call him, the Poor-law Medical Officer, who visits the sick, and whose duty it should be to act as Sanitary or Preventive or Health Officer in the first instance. But he must make it his duty, when he sends in his sickness report, detailing his cases of fever or cholera, to account for them, if possible—to say whether any insanitary conditions exist, and whether proper notices have been served, and if not, why not. These Superior Civil Practitioners would relieve the ordinary Civil Surgeon of the trouble of initiating law proceedings, and of the embarrassment of offending his friends and patients. These latter might be told by the local Practitioner, "I do not want to annoy you, but when my superior sees cases of fever entered as occurring in your cottages, he will come down upon you if I do not."

The possible duties and qualifications that may be required of the real Medical Officer of Health or Civil Inspecting Practitioner—or whatever other name you may please to designate him by—are multifarious. It is to him that the public would look for statistical information as to sickness and death, and their causes, over the area of his jurisdiction; for initiating and carrying out legal proceedings against nuisances; for inquiring into cases of uncertified deaths. Moreover, he should conduct post-mortems, make analyses, test adulterated food, determine the purity of water, act as coadjutor or substitute for the coroner, report on epidemics affecting animals; and, in fact, Dr. Rumsey suggests that he should be ready to perform more functions than, I fear, come within the competency of most even of the best qualified Practitioners, and that he should be debarred from private practice. Now, all will agree that the best men possible should be obtained. But there are in Medicine many lines which a highly educated man may follow, and it is impossible that any one man should embrace them all. The two most widely divergent lines are physical science and pathology; but excellence in either is an admirable qualification for a Superior Sanitary Officer. You see what chemical and physical studies can produce, in the example of the present Medical Officer of Health for the City of London; but if you look at his eminent predecessor, or at your late colleagues, Sanderson and Buchanan, their *forte* was pathology—in fact, the qualification seems to be *brains* in general rather than any specialised routine of study. But the Sanitary Officer, if he is not to fall behind the age, must have some kind of study which shall connect him with the progress of biological science in some branch. You may remember that Mr. Simon pleaded most justly that the Medical Officer of Health should be connected with a Hospital; but if he may give up a certain measured portion of his time to Hospital attendance, his duties to his patients and his pupils and the regulations of the treasurer and governors might quite as much interfere with urgent sanitary business as might the much more elastic attendance on private patients. I think it must be conceded that the greatest possible inducement to keep pace with the day is, responsibility of attendance on the sick; and it would be limiting the choice of officers unduly if all degrees of private practice were disqualifications. One of the best and most practical sanitarians that ever I knew was the late Sir James Clark, Bart.; and many a time I used to receive practical hints from him when I held office. Now, perhaps it may not be very well known that the ideal combined curative and sanitary Medical organisation which I advocate was foreshadowed by the arrangements in some rich and liberal London parishes thirty years ago. For instance, the parish of St. George, Hanover-square, used to employ a Physician and Surgeon with handsome salaries, besides the general Practitioners. The last holders of those offices were Sir James Clark (then Dr. Clark), who resigned on being appointed Physician to the Queen; and Mr. Howship, who was Surgeon. The parochial Infirmary had a status equal to that of any Hospital. It is this kind of organisation which should be restored, provision being made that sanitary and preventive Medicine shall be duly included. Let me add, how much better such an arrangement than that of the Hampstead Infirmary and kindred institutions, with isolated Resident Medical Officers, and no visiting Physicians! Whoever desires the public to have the services of the best men will not be too ready to elect a Practitioner to an Infirmary or Dispensary, require him to give his whole time, and debar him from private practice.

Truly, gentlemen, the present aspect of things promises no repose to Medical Officers of Health. The air seems thick with epidemics. Of the small-pox, we hear that, after having ravaged Europe, it is raging in Syria, with a mortality of 88 per cent. amongst the unvaccinated at Smyrna. It appears, also, to be making its way in Ireland, despite the good repute of the Irish vaccination; and it thus seems to show that there is an epidemic wave, such as Inspector-General Lawson describes—a set of conditions which slowly spreads from country to country, and overcomes at times the protection which the best vaccination can give. Perhaps it is well for the human race that this is so. Vaccination enables certain individuals to avoid a disease, but society needs something more: we want the lurking-places hunted out, where not only small-pox, but other diseases of the same class have their strongholds. Let us hear what our microscopical pathologist Beale says. Describing the matter of contagion to be certain infinitely minute particles of germinal matter, allied to pus, he shows how pus will preserve its vitality in urine, may pass through the air, adhere to sponges, clothes, towels, and the like. "A warm moist atmosphere, small close rooms, with curtains, carpets, and plenty of clothes and rugs, so arranged as to cause air to be pent up in confined spaces, with very slow interchange"—such are the circumstances which favour the vitality of contagious matter, and keep it pent up ready to spread; whilst a dread of currents of air is a mental characteristic of those who are usually the sufferers from, and propagators of, contagion. So long as the population is dirty and frowsy, so long will zymotic diseases destroy the cleanest.

The cholera is hanging about Constantinople. In August we learned that it prevailed at Broussa and the neighbourhood on the Asiatic side of the Bosphorus. At the end of the month we hear of it at Kherson and the Sea of Azof. It is curious to note the kind of opinions held about it. On September 8 we find a leading Constantinople newspaper denying positively the existence of the disease in Constantinople, and affirming that the two persons who were said to have had it had been made ill by eating haricots cooked and kept in a copper vessel. No surer harbinger of cholera than fictions of this sort, which resemble what is said about plums in England. On September 18 the same paper protested in the most solemn manner against the idea of cholera in Constantinople, and said that the only persons who died had been proved by "investigations particulières et enquêtes officielles" to have died of indigestion. On September 21 the Conseil de Santé, with a suspicious absence of numbers, declared the existence of "quelques cas de cholera, dont quelques uns mortels"; yet on September 23 *La Turquie* attacks a Physician whom it refuses to name, and who asserted that a patient in the suburbs had cholera, though it was only fever. Under date of September 24 we learn that cholera had abated at Tauris, in Asia Minor, after having destroyed 8000 victims. On the 28th the same paper complains of want of official information, and that no one knows whether there be cholera or not. On October 5 two cases in the Artillery; one fatal. On October 11 we have at last an official report detailing the existence of the cholera for five weeks in the suburbs—viz., at Arnaout Keuy on the Bosphorus, and afterwards at Kassim Pasha on the Golden Horn.

With no attempt at figures, this report states that, first of all, about September 3 two porters died at Arnaout Keuy, a suburb inhabited by Armenians and fisherman; during the next fortnight half a dozen other fatal cases, and many more not fatal. Towards the middle of September several cases at Top-hanè and other suburbs, with six deaths. Physicians were employed, disinfectants and medicines distributed. On September 24 there were forty-seven attacks and twenty-one deaths at Kassim Pasha, where is the naval arsenal, and on the 29th fifty attacks with thirty deaths. On September 29 the Sanitary Commission took the energetic measure of turning out the garrison from the arsenal, and all the inhabitants of the affected quarter, and putting them under canvas on high ground. There were but six attacks in the next twenty-four hours. Meanwhile, spite of the decrease of the disease in its original focus, cases were constantly appearing in the adjoining low quarters, which were believed to be imported from Kassim Pasha. Therefore, in addition to measures of disinfection and cleansing, a *cordon sanitaire* of military was drawn round the infected quarter, in which the inhabitants were confined, and none allowed to go in and out save mollahs, priests, Physicians, and sisters of charity. This was done on the evening of October 1. Rations were provided for the enclosed population, pure water was brought to them in barges, and measures taken to disinfect their open sewer with coal-tar from the gas-works. The effect of this measure seemed beneficial, for on the 7th were reported twelve attacks only, and ten deaths. On October 24 we learn that Dr. Zitterer, one of the Physicians appointed to attend the cholera patients, had a narrow escape with his life from an attack.

About October 15 a serious outbreak occurred at Haskeui amongst a colony of English workmen and Jews quartered

there. Eight deaths soon occurred amongst the English, and thirty amongst the Jews. It is said that the injection of ammonia into the veins was practised with success. A *cordon* was at once drawn round the infected place, but the English residents broke through it, and went in a body to Sir Philip Francis, at the Consulate, to represent the difficulty of obtaining bread, meat, and medicine, and to complain of the enormous nuisance of an open sewer. On October 25 we learn that three or four more deaths had occurred amongst the English colony at Hasskeui, and that there were in the whole city and suburbs forty cholera deaths on Sunday (22nd), and twenty-two on Monday, and that several deaths had occurred from exhaustion and cold amongst the population of native labourers encamped in tents. On November 1 we learn that the encampment was broken up. The total number of English who have fallen victims from the commencement at Hasskeui is thirty-three; and the deaths over all Constantinople amounted to ten on Saturday, the 28th, and to forty on the Monday, October 30. We learn, further, that the disease is creeping along the Bosphorus; but as one crumb of comfort, we hear it surmised that the disease may not be the true cholera after all, but some choleriform disease engendered by a locally poisoned atmosphere. If this be the case, the propriety of shutting up persons by a *cordon sanitaire* within the poisoned district is very questionable.

The main facts are, an occasional death-rate of from ten to forty daily, in a population of about 1,200,000 souls, living in bad sanitary condition on the north side of the Bosphorus.

I have thought these details might be interesting, as they show the real nature of the plague that overhangs us. The fear is lest we should hear of it at Vienna, Trieste, Brindisi, Malta, or Marseilles; if so, we shall not long be spared.

I had intended to have brought some other subjects under your notice, and especially the sanitary relations of public education, the evils of the forcing or cram system, the subjects of intemperance, the Contagious Diseases Act, and other topics which clamour for a settlement; but the length to which I have gone prevents me from doing so this evening. Let me say, in conclusion, that if the working-men of England are in earnest in that sevenfold demand of which we hear in political circles—of healthy homes, unadulterated food, pure air, education, and the like—such of them as are attainable are most likely to be attained through the medium of sanitary science and practice.

OBITUARY.

GEORGE BULLEN, F.R.C.S. Eng. (Hon.), L.S.A., etc.,

Died at Carr-street, Ipswich, on the 11th inst. He was born at West Downham, Isle of Ely, 1791. His father (who subsequently was Head-master of Oundle Grammar School) was at that time the curate of the parish. The deceased was educated by his father, and became a pupil of the late Mr. Stebbing, a Medical Practitioner of Ipswich. In 1813, at the age of 22 (the earliest age then allowed), he passed the Royal College of Surgeons, and for a short time was an assistant to a Medical Practitioner at Birmingham. He afterwards returned to Ipswich, and was assistant to Mr. Stebbing, and at the latter's death succeeded to his practice. He was elected, on the establishment of the East Suffolk Hospital, one of its Surgeons, and held the appointment until two years ago. He was remarkable (although a nervous man) for his skilful operations. He had a very fine and interesting collection of calculi, which are now in the Museum of the Royal College of Surgeons. He was a most vigilant man; no new important Medical work, instrument, or medicine would escape his examining and ascertaining their value. He was conversant with general literature and the fine arts. His conversational powers were of no mean order. In politics he never took any leading part, but would at Conservative meetings make some well-timed and pointed remarks. He was once elected an alderman of the borough, but only held the office for about six months. He was elected, on the resignation of Mr. William Rodwell, President of the Public Library, and continued so till his death. He was also a member of the Museum Committee and of the Dock Commission. He held the office of Deputy Provincial Grand Master of Suffolk for several years. He was married twice, but survived both his wives. He leaves several daughters by his first wife; but his only son (a successful Medical Practitioner in Ipswich) died a few years since. His funeral was attended by upwards of thirty of the principal Medical Practitioners of the town and neighbourhood, as a last tribute of respect to one whose death is deeply lamented, and who will be long remembered. He was F.R.C.S. Eng. (Hon.), 1844; M., 1813; L.S.A., 1816 (St. Barthol.); Senior Surgeon East Suffolk Hospital.

FREDERICK BOND EATON, M.R.C.S. and L.R.C.P. Edin., etc.,

Died at Nuneaton, North Warwickshire, on Saturday, under most melancholy circumstances. He had visited a patient on Friday, at a distance of about six miles from the town, and drove home about ten o'clock at night. Nothing more was seen of the deceased until eight o'clock the next morning, when a labourer who was passing along the road—some distance from the patient's house—observed the deceased in a sitting posture on the side of the road. He asked him what was the matter, but, getting no reply, he did not trouble himself further, and went on about his business. On returning, however, about an hour afterwards, he found him still sitting upon the ground, his head resting upon one of the wheels of his chaise, and one of his arms being between the spokes. He then ran home and told his master, who went immediately, and after asking the deceased several times for his name and address, the latter with some difficulty told him who he was. Brandy was at once procured, but the deceased was unable to swallow it. He was then taken home, but died very soon after his arrival. On examination of the deceased, his apparel showed that he must have got into some water during the night, his clothes being saturated, and some of them frozen and stiff. Mr. Nason, Surgeon, who was called in, said he found the deceased quite cold and unconscious. He breathed at long intervals five or six times, and then died. An inquest has been held upon the body, and the jury returned a verdict, "That deceased died from congestion of the brain consequent upon exposure." He was M.R.C.S. Eng.; L.R.C.P. Edin., and L.M., 1866; L.F.P.S. Glasgow, 1864; Medical Officer, Nuneaton District; Certifying Factory Surgeon, Nuneaton and Bedworth. He had resided for the past five years in Nuneaton, and was much respected.

JOHN DEMPSTER, M.D., INSPECTOR-GENERAL OF HOSPITALS,

Died on the 10th inst., at 47, Great King-street. He entered the Service in October, 1813; became Surgeon, March, 1836; Surgeon-Major, October, 1848; Deputy Inspector-General, 1852; and retired on half-pay, with the rank of Inspector-General, January, 1859. He served with the 38th Regiment throughout the first Burmese war, including the capture of Rangoon, storm and capture of the Stockades, Kincardine, and Kamaroot, and the battles of Rangoon, Kokein, etc.—medal and clasp.

NEW INVENTIONS.

CHAPMAN'S ENTIRE WHEATEN FLOUR.

(*Orlando Jones and Co.*, 18, *Billiter-street, E.C.*)

Of late years, since Liebig demonstrated the necessity of providing in the food all the chemical constituents of the living body, Physicians have written much on the pernicious custom of using too fine a flour for ordinary food. The loss of all the bran involves the loss of much nutritive matter, of an ingredient which stimulates the alimentary canal to discharge its contents, and of much phosphate of lime, which is required at all ages for the growth and repair of the bones, teeth, and, in fact, of muscle and all tissues. To make up for this, it is customary to recommend brown bread or brown biscuits, in which a portion or the whole of the bran is retained. But then young infants cannot bear so coarse a diet, and some adults find the bran irritating. To obviate these objections, the "entire wheaten flour" contains the bran in a very minute state of division, so that it shall not irritate by its mechanical qualities, and so that it may be readily consumed by young children. We have tried it in the form of a cake made according to a recipe on the cover, and found it very palatable—the bran is just enough to cause an agreeable crispness to be felt by the teeth. This is an expensive method, but the flour may be used economically in biscuits and in some kinds of puddings. It does not make what is called a good nursery pudding, with eggs and milk; and it seems to us that, in the case of a backward child with weak bones, the best plan would be to make it into palatable biscuits, so that every day's diet may contain its dose of bran.

MILLER'S NEW BUNION SPRING.

THE object of this little apparatus is to take off pressure from the joint affected with the bunion. It consists of two little pads, to each of which is attached a short wire spring, and a ribbon which fastens the spring like a sandal on the foot. The pads are placed between the great and second toes. The effect is that the great-toe is drawn into its proper place, and the pressure relieved. It is a simple and apparently a most effective invention.

MEDICAL NEWS.

KING AND QUEEN'S COLLEGE OF PHYSICIANS, IRELAND.—At the examinations held on November 1, 14, 15, and 16, the following candidates were successful:—

For the Licence to Practise Medicine.

Coppinger, Charles Philip.
Crookshank, Harry Maule.
Doyle, Jeremiah.
Galgey, Otho.
May, Walter.
Ward, Michael Francis.

For the Licence to Practise Midwifery.

Beamish, James Maybury.
Crookshank, Harry Maule.
Doyle, Jeremiah.
Elliott, Christopher.
Galgey, Otho.
May, Walter.
Smith, James Edward.

ROYAL COLLEGE OF SURGEONS.—The following Members of the College, having passed the primary or Anatomical and Physiological Examinations for the Fellowship, at a meeting of the Court of Examiners on the 21st inst., will be admitted to the final examination when eligible, viz.:—

Evans, George Harrison, M.B. Edin., Hagley-road, Birmingham, diploma of Membership dated April 22, 1868, student of St. Bartholomew's, Birmingham, and Edinburgh Schools.
Harvey, William, L.S.A., Royal Navy, January 29, 1862, of the Charing-cross Hospital.
Higgins, Charles, L.R.C.P. and L.S.A. Lond., Hambledon, April 21, 1868, of Guy's Hospital.
Joubert, Charles Henry, M.B. Lond., Newton Lodge, Hungerford, May 5, 1868, of St. Mary's Hospital.
Page, Herbert William, M.B. and B.A. Cantab., Carlisle, November 16, 1869, of the London Hospital.
Partridge, Samuel Bowen, L.S.A., H.M. Indian Army, August 5, 1851, of King's College.
Roe, Thomas Alexander, M.D. St. Andrews, Royal Navy, April 22, 1862, of the Cork School.
Wells, John Soelberg, M.D. Edin., Savile-row, December 21, 1860, of King's College.

The following gentlemen, *not* members of the College, also passed the examination, viz.:—

Dundas, George Albert, student of Guy's Hospital.
Donkin, Horatio Bryan, of St. Thomas's Hospital.
Moss, Herbert Campbell, of King's College.
Massiah, Benjamin Jones, of the Bristol School.

Nine candidates having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their Professional studies for six months.

The following gentlemen, having undergone the necessary examinations for the Diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 16th inst., viz.:—

Boon, Alfred Pearl, Delamere-crescent, student of St. Mary's Hospital.
Cable, George Hughes, L.S.A., Royal-hill, Greenwich, of Guy's Hospital.
Cowley, John Selwyn, Upton-on-Severn, of St. Bartholomew's Hospital.
De Méric, Henry Eugene, Brook-street, Grosvenor-square, of King's College.
Ewart, William, Montpelier-square, S.W., of St. George's Hospital.
Gill, Stanley Augustine, L.R.C.P. Edin. and L.F.P. & S. Glasg., Torquay, Devon, of the London Hospital.
Harrison, Thomas, Stafford, of the Liverpool School.
Head, William Cave, L.S.A., Lewes, Sussex, of St. Bartholomew's Hospital.
Hendry, James Alexander, Liverpool, of the Liverpool School.
Jago, Thomas, Saltash, Cornwall, of St. Bartholomew's Hospital.
James, David Philip, Narberth, South Wales, of St. Bartholomew's Hospital.
Johnson, Frederick Philippo, Taunton, Somerset, of University College.
Julius, Stanley Alexander, Mortlake, of King's College.
Lee, Alfred Robert, L.R.C.P. Edin. and L.S.A., Tollington-park, of University College.
Sergeant, Edward, Preston, Lancashire, of St. Thomas's Hospital.
Smith, Joseph Priestley, Edgbaston, Birmingham, of the Birmingham School.
Thomas, John Howell, L.R.C.P. Lond., and L.S.A., Carmarthen, of the London Hospital.
Yate, Edward, Godalming, of St. Bartholomew's Hospital.

The following gentlemen were admitted Members of the College on the 17th inst., viz.:—

Harbinson, Alexander, M.D. Queen's Univ., Ireland, Newry, co. Down, student of the Belfast School.
Lees, Frederic Arnold, Meanwood, near Leeds, of the Leeds School.
Magill, James, B.A., M.D. & M.C. Queen's Univ., Ireland, Cork, of the Cork School.
Masterman, George Frederick, L.S.A., Croydon, of Guy's Hospital.
Ramsay, Ebenezer John, Queen Anne-street, of University College.
Rogers, William Richard, M.R.C.P. Lond., Berners-street, of University College.
Seale, George John, L.S.A., Merthyr Tydfil, of the Middlesex Hospital.
Slater, John Samuel, L.S.A., Bath, of St. Thomas's Hospital.
Sloane, Ebenezer Erskine, M.D. Queen's Univ., Ireland, Lisburn, co. Antrim, of the Belfast School.
Walsham, William Johnson, M.B. & C.M. Aberd. and L.S.A., Tyndale-place, Islington, of St. Bartholomew's Hospital.
Wright, John Rowland, The Bank, Leicester, of St. Mary's Hospital.

We find that 100 candidates for the Membership of the College appeared before the Court of Examiners during the past week: of this number seventy obtained their diplomas, thirteen were approved in Surgery, and, when qualified in Medicine, will be admitted Members of the College, and the remainder were referred to their Hospital studies for six months.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, November 16, 1871:—

Hosking, Ethelbert, Woburn-square, W.C.
Parkhouse, Henry, Braintree, Essex.
Whitington, Charles Edward, Tuxford, Notts.

As an Assistant in compounding and dispensing medicines—

Kimber, Benjamin Tindall, Southampton.

The following gentlemen also on the same day passed their first Professional examination:—

Lewis, Frederick William, Middlesex Hospital.
Paradise, Thomas Decimus, Guy's Hospital.
Warren, Alfred, Charing-cross Hospital.
Whitaker, James Sealy, Guy's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

ALLEN, THOMAS, L.R.C.P.L., L.S.A.—House-Surgeon to the Great Northern Hospital, *vice* Mr. J. Willis, resigned.

COVEY, GEORGE, M.R.C.S. and L.S.A.—Medical Officer for the Braughing District of the Bishop Stortford Union.

ELDER, GEORGE, M.B.—Resident Surgeon to the General Hospital, Nottingham, *vice* A. G. Mickley, M.B. Lond.

GILMOOR, R., M.R.C.S.E. and L.M. Univ. Glasgow—Medical Officer for the Landport District of the Portsea Island Union.

HAMILTON, ALEXANDER, L.R.C.P. and L.R.C.S. Edin.—Medical Officer for the Tenth District of the Ashton-under-Lyne Union, *vice* F. Cooke, M.R.C.S.E., L.S.A., deceased.

LAWRENCE, H. CRIPPS, L.R.C.P. Lond.—Pathologist to the Sophia Nursery for Infants, Fulham.

SUTTON, WILLIAM, M.R.C.S.E., L.S.A., and L.M.—Officer of Health to the Smethwick Local Board of Health.

MILITARY APPOINTMENTS.

2ND DRAGOONS.—Staff Assistant-Surgeon George Ballingall Stuart, M.B., to be Assistant-Surgeon, *vice* Thomas Rudd, M.D., promoted.

7TH FOOT.—Staff Surgeon Thomas Rudd, M.D., to be Surgeon, *vice* John Hendley, appointed to the Staff.

22ND FOOT.—Staff Assistant-Surgeon Edward O'Connell, to be Assistant-Surgeon, *vice* Francis Henry Welch, appointed to the Staff.

40TH FOOT.—Surgeon-Major Archibald Henry Fraser, from 88th Foot, to be Surgeon, *vice* Surgeon-Major William, M.D., who exchanges.

52ND FOOT.—Staff Surgeon Thomas Norton Hoysted, to be Surgeon, *vice* Henry Alexander Gogarty, M.B., appointed to the Staff.

88TH FOOT.—Surgeon-Major George William Peake, M.D., from the 40th Foot, to be Surgeon, *vice* Surgeon-Major Archibald Henry Fraser, who exchanges.

MEDICAL DEPARTMENT.—Deputy Inspector-General of Hospitals Francis William Innes, M.D., C.B., to be Inspector-General of Hospitals; Surgeon-Major John Hendley, from 7th Foot, to be Staff Surgeon-Major, *vice* Thomas Rudd, M.D., appointed to the 7th Foot; Surgeon Henry Alexander Gogarty, M.B., from 52nd Foot, to be Staff Surgeon, *vice* Thomas Norton Hoysted, appointed to 52nd Foot; Assistant-Surgeon Thomas Rudd, M.D., from 2nd Dragoons, to be Staff Surgeon, *vice* Staff Surgeon-Major Brinsley Nicholson, M.D., who retires upon half-pay; Staff Assistant-Surgeon Henry Cole Peppin, from half-pay, to be Staff Assistant-Surgeon, *vice* George Ballingall Stuart, M.B., appointed to 2nd Dragoons; Assistant-Surgeon Francis Henry Welch, from 22nd Foot, to be Staff Assistant-Surgeon, *vice* Edward O'Connell, appointed to 22nd Foot.

BREVET.—Staff Surgeon-Major Brinsley Nicholson, M.D., who retires upon half-pay, to have the honorary rank of Deputy Inspector-General of Hospitals; Thomas Benjamin Briscoe, gentleman of the Bengal Subordinate Medical Establishment, who holds the local rank of Honorary Assistant-Surgeon, to have the honorary rank of Assistant-Surgeon.

BIRTHS.

BALLARD.—On November 20, at 7, Compton-terrace, N., the wife of Edward Ballard, M.D., of a daughter.

DEAN.—On November 20, at The Cottage, Church-road, Upper Norwood, the wife of Dr. P. T. Dean, of a son.

HILLS.—On November 16, at Thorne, near Norwich, the wife of W. Charles Hills, M.D., of a daughter.

LITTLEJOHN.—On November 13, at 24, Royal-circus, Edinburgh, the wife of Dr. Littlejohn, of a daughter.

LOMAS.—On November 20, at 35, Finsbury-square, the wife of William Lomas, M.D., of a son.

LYNCH.—On November 15, at 41, Chepstow-villas, Kensington-park, the wife of J. Roche Lynch, L.R.C.P. Lond., of a daughter.

SPACKMAN.—On November 18, at Bowers House, Harpenden, the wife of Frederic R. Spackman, M.D. Lond., of a son.

WORKMAN.—On November 16, at 1, Clarendon-terrace, Teignmouth, the wife of Charles J. Workman, M.D., of a son.

WRIGHT.—On November 17, at Aldershot, Hants, the wife of Dr. J. Hornsby Wright, 2nd Battalion 17th Regiment, of a daughter, stillborn.

MARRIAGES.

BARWELL—SHUTTLEWORTH.—On November 15, at Christ Church, Preston, Richard Barwell, F.R.C.S., George-street, Hanover-square, to Mary Diana, second daughter of Thomas Starkie Shuttleworth, Esq., Preston.

HEFFERNAN—HEATH.—On November 16, by special licence, at the parish church of Wolstanton, James Joseph Heffernan, Surgeon Madras Army, to Mary, eldest daughter of Robert Heath, Esq., The Bramptons, Staffordshire.

JOTHAM—WARWICK.—On November 16, at Southend, Essex, George William Jotham, M.B., of Kidderminster, to Edith, third daughter of W. R. Warwick, M.D., of Southend.

WOODCOCK—NOAD.—On November 16, at St. Stephen's Church, Westbourne-park, William Hugh Woodcock, of 25, Auckland-hill, Lower Norwood, second son of William Woodcock, Esq., Tor Villa, St. John's-road, Brixton, to Helen Margaret, only daughter of Dr. Henry M. Noad, F.R.S., of 72, Hereford-road, Bayswater.

DEATHS.

ANDERSON, WILLIAM JOHN, F.R.C.S., son of William Anderson, Esq., 71, Seymour-street, Hyde-park, on the voyage from Sydney, New South Wales, in the 51st year of his age.

BIGSBY, CAROLINE, wife of John J. Bigsby, M.D., F.R.S., at 89, Gloucester-place, Portman-square, on November 19, aged 82.

DELAGARDE, PHILIP CHILWELL, F.R.C.S., at 23, Southernhay, Exeter, on November 17, aged 74.

DEMPSTER, JOHN, M.D., Inspector-General of Army Hospitals, at 47, Great King-street, Edinburgh, on October 10.

HAWKINS, VINCENT SAMUEL BENT, the eldest beloved son of the late Dr. Vincent Hawkins, of King's Lynn, Norfolk, at Redhill, Surrey, on November 20, aged 40.

METCALFE, FENWICK, Bengal Medical Staff (Civil Surgeon, Kurnaul), son of the late Charles Metcalfe, Esq., of Inglethorpe Hall, Emneth, Norfolk, at Mussoorie, Himalayas, on October 13, aged 31.

SMITH, ALEXANDER, M.D., late of the Bengal Military and Civil Service, at Gothic House, Herne Bay, on November 16, aged 67.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

AMERSHAM UNION.—Medical Officers required for the First and Second Districts of this Union. Gentlemen applying for this appointment are required to possess the qualifications prescribed by the General Orders of the Local Government Board. Applications and testimonials to Mr. H. Bedford, Clerk, Amersham, on or before November 28. Election the same day.

BIRMINGHAM GENERAL HOSPITAL.—House-Governor and Secretary. Applications and testimonials to Mr. Francis Fowke, on or before November 30.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—House-Surgeon. The gentleman appointed must be a Member of one of the Colleges of Surgeons of the United Kingdom. Applications and testimonials to the Secretary, on or before December 4. Election on the 12th.

BRADFORD FEVER HOSPITAL.—Honorary Medical Officer. Must be duly qualified under the "Medical Act" of 1858. Applications and testimonials to Mr. C. Woodcock, on or before November 27. Election on December 12.

CENTRAL LONDON OPHTHALMIC HOSPITAL, GRAY'S-INN-ROAD, W.C.—Assistant-Surgeon. Must be F. or M.R.C.S.E., not engaged in the practice of Midwifery or Pharmacy. Applications and testimonials to the Secretary, on or before December 2.

CHARING-CROSS HOSPITAL, WEST STRAND.—Surgeon-Dentist, who must be a Fellow or Member of the Royal College of Surgeons of England. Applications and testimonials to the Secretary, on or before November 29.

DERBY COUNTY LUNATIC ASYLUM.—Superintendent Physician. Applications and testimonials to Mr. John Barber, on or before November 28.

EDINBURGH ROYAL INFIRMARY.—General Superintendent. Applications and testimonials to Mr. Bell, Clerk to the Corporation, on or before December 1.

FARRINGDON DISPENSARY, BARTLETT'S-BUILDINGS, HOLBORN, E.C.—Resident Surgeon. Medical and Surgical qualifications required. Applications and testimonials to Mr. S. Green, on or before December 4.

GREAT NORTHERN HOSPITAL.—Surgeon. Must be a Fellow of one of the Colleges of Surgeons. Applications and testimonials to the Secretary, on or before December 7.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, BROMPTON, S.W.—Resident Clinical Assistants. Candidates must have some Medical qualification. Applications and testimonials to the Hon. Sec., on or before December 2.

INFIRMARY FOR CONSUMPTION AND DISEASES OF THE CHEST.—Visiting Physician. Applications and testimonials to Mr. F. Baily, 27, Margaret-street, Cavendish-square, W.

LIVERPOOL ROYAL INFIRMARY.—Physician. Must be F. or M.R.C.P.L., or a Graduate in Medicine of one of the following Universities—namely, Oxford, Cambridge, Dublin, Edinburgh, Glasgow, or London. Applications and testimonials to Mr. E. Gibbon, on or before December 1.

LIVERPOOL ROYAL INFIRMARY SCHOOL OF MEDICINE.—The Chair of Ophthalmology is vacant. Applications to the Registrar, on or before December 3.

PARISH OF ST. MARY ABBOTTS, KENSINGTON.—Medical Officer for the Notting-hill and Kensal-green District. For further particulars, apply to the Clerk to the Guardians, 1, Devonshire-terrace, Wright's-lane, Kensington, W.

REETH UNION.—Medical Officer for the Muker District. Candidates are required to possess the qualifications prescribed by the General Orders of the Local Government Board. Applications and testimonials to Mr. James R. Tomlin, Richmond, Yorkshire, on or before December 1.

ST. MARY'S HOSPITAL AND DISPENSARY FOR WOMEN AND CHILDREN, QUAY-STREET, MANCHESTER.—Medical Officer for Out-patients. Must have Medical and Surgical qualifications. Applications and testimonials to Mr. J. Barber, on or before December 2.

SOUTH STAFFORDSHIRE GENERAL HOSPITAL, WOLVERHAMPTON.—Physician's Assistant. Candidates must be graduates in Medicine of a British University. Applications and testimonials to the Chairman of the Medical Committee, on or before November 27.

STOCKPORT INFIRMARY.—Assistant-Surgeon. Qualifications in Medicine and Surgery required. Applications and testimonials to the Honorary Secretary, on or before November 30.

SUSSEX COUNTY HOSPITAL, BRIGHTON.—Surgeon. Must be M.R.C.S.E. Edin. or Dub. The office of Assistant-Surgeon is also vacant; the qualifications required are the same as for the appointment of Surgeon. Applications and testimonials to Mr. A. Vesey, on or before December 6.

TORMSHAM, DISTRICT OF.—Medical Officer of Health. Applications to Mr. B. Hooper, Local Board Offices, Town Hall, Torquay, on or before November 25.

VICTORIA HOSPITAL FOR SICK CHILDREN, GOUGH HOUSE, QUEEN'S-ROAD WEST, CHELSEA.—House-Surgeon. Must possess at least one qualification to practise. Applications and testimonials to Mr. St. John H. Young, on or before November 27.

WANDSWORTH AND CLAPHAM UNION.—Medical Officer to the Workhouse and Infirmary. Candidates must be duly qualified and registered. Applications and testimonials to Mr. John Sanders, on or before November 27. Election on the 28th.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1861.

RESIGNATIONS.

Bosmere and Claydon Union.—The Claydon District is vacant; area 8589; population 3462; salary £42 per annum.

North Bierley Union.—Mr Joseph W. Hodgson has resigned the Sixth District; area 2630; population 6268; salary £15 per annum.

Wem Union.—The Prees District is vacant; area 14,754; population 3504; salary £40 per annum.

Woodbridge Union.—Mr. Charles E. Covey has resigned the Fifth District; area 10,850; population 3439; salary £62 per annum.

APPOINTMENTS.

Bramley Union.—James Hall Evans, L.R.C.P. Edin., L.F.P.S. Glasg. to the Wortley District.

King's Lynn Union.—Edwin Woodward, L.R.C.P. Edin., M.R.C.S. Eng., to the Workhouse.

Marlborough Union.—Francis J. Ryder, M.R.C.S. Eng., L.S.A., to the Second District.

Plymouth Incorporation.—John N. Stevens, M.R.C.S., L.S.A., to the Southern District. George Jackson, M.R.C.S., L.S.A., to the Western District. Robert J. Shepherd, M.R.C.S., L.S.A., to the Northern District. Frederick A. Thomas, M.R.C.S., L.R.C.P. Edin., L.R.C.S. Edin., to the Workhouse.

South Shields Union.—James Dalziel, L.R.C.P. Edin., L.F.P.S. Glasg., to the Westoe District.

Ware Union.—George Covey, M.R.C.S., L.S.A., to the First District.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—At a meeting of the Council held on the 16th inst., Dr. W. Handsel Griffiths, Ph.D., L.R.C.P., and L.R.C.S.E., was elected Assistant-Librarian of the College.

NOTICES have been given of an intended application to Parliament for an Act to supply London with sea-water from Brighton.

MR. S. GODDARD, Medical Officer of Health at Burslem, in his report to the Local Board, drew the attention of the Board to the death of Mary Ann Robinson, who had died, aged 100 years and 10 months.

A MEDICAL MAYOR.—Dr. James Coombs has been unanimously elected Mayor of Bedford for the ensuing year. He is M.D. Erlangen, and Member of the Royal College of Surgeons of England. He was educated at St. Bartholomew's Hospital.

CHOLERA IN CONSTANTINOPLE.—It is officially announced that there were 379 deaths from cholera in Constantinople during the week ending November 12; but we are glad to see by the latest intelligence that the disease is on the decrease.

PARISH DISPENSARY SYSTEM.—This system appears to be a failure to some extent, at least, in the large parish of Bethnal-green. At the last meeting of the guardians, in a discussion respecting the arrangements for administering Medical relief in the parish, they passed a resolution to abolish the Quilter-street Dispensary.

Mr. Alfred Cooper, F.R.C.S., has been elected Surgeon to the Royal Hospital for Diseases of the Chest. There were seven candidates in the field.

It is proposed to extend the Infirmary at Manchester, and to amalgamate St. Mary's Hospital with it.

We regret to hear that Dr. Metcalfe, in civil Medical charge of Karmal, India, has been thrown from his horse and killed.

Pachmarhi, as a station for European troops and for invalids, has been very favourably reported on to the Indian Government for its healthiness.

Fever has attacked the troops in the Colombo Fort, Ceylon.

Queen Charlotte's Lying-in Hospital.—Mr. Geo. Hanbury, of Portman-square, has accepted the office of Treasurer to this old-established and excellent charity in the vacancy occasioned by the decease of Mr. John Savory. The Hospital, formerly called "The Queen's," has been in existence nearly 120 years.

The Royal Society.—The annual meeting of the Fellows of this Society will be held as usual on St. Andrew's-day, the 30th inst., at Burlington House, when the following members of our Profession will be nominated as Councillors, viz.:—William Sharpey, M.D., LL.D., as one of the Secretaries; *George James Allman, M.D.;* George Burrows, M.D.; *George Busk, President of the Royal College of Surgeons;* Professor Peter Martin Duncan, M.D.; and *Sir James Paget, Bart., D.C.L., F.R.C.S.* Those gentlemen whose names are printed in *italics* were not members of the last Council. At this meeting the annual award of the gold medals of the Society will be made in favour of Mr. George Busk, F.R.S., President of the Royal College of Surgeons; and Dr. John Stenhouse, F.R.S. The Copley Medal will be presented to Dr. Julius Robert Mayer, of Heilbronn.

Dr. Wallace, of Greenock, has been presented with a silver salver, on which were sovereigns to the amount of between £300 and £400, by a few of his patients, as a token of regard and acknowledgment of Professional skill, on the occasion of his going to the Mediterranean for the benefit of his health.

Mr. Thomas Coe, F.R.C.S. Eng.—The thirtieth anniversary of the St. Edmund Lodge of the Manchester Unity Independent Order of Odd Fellows was celebrated by a dinner at the Town-hall, Lord A. H. C. Hervey, M.P., in the chair, at which Mr. Coe was presented with a handsome silver epergne, on which was inscribed, "Presented to Thomas Coe, Esq., F.R.C.S., as a small token of respect, after thirty years' services as Surgeon, by the Officers and Brothers of the Loyal St. Edmund Lodge, No. 2988, M.U.I.O.O.F., at the celebration of their thirtieth anniversary, Nov. 13, 1871."

Mr. Robert Roberts, M.R.C.S. Eng., Surgeon to Mrs. Oakeley's Hospital and to the Festiniog Slate Quarries, has been presented with a long and very complimentary address (written in English and Welsh), a purse containing £218 18s. 3d., and an elegantly-bound book containing the names of the subscribers, from half-a-crown upwards, by the quarrymen and inhabitants of Festiniog and the surrounding districts, "as a token of esteem on account of the skill and faithfulness which he has displayed in the discharge of his duties as a Medical Practitioner whilst attending upon the numerous accidents which have occurred, and the severe epidemics and diseases with which that neighbourhood has been visited during the course of his Medical career among them."

Medical Studies at Cambridge.—The Board of Medical Studies at Cambridge, finding that time is lost by students of Medicine in the University not adopting some defined plan in their attendance on the various courses of lectures, certificates of which are required previous to the several Medical examinations, recommend them to adopt, so far as practicable, the following plan. To pass the Previous Examination, with additional subjects, in their second term of residence (*vide* Reg. 17, Prev. Ex.), and then to attend lectures and pursue their studies in the following order:—Easter Term: Botany, mechanics and hydrostatics, heat and electricity. Long Vacation: Botany, chemistry, human osteology. Michaelmas and Lent Terms: Human anatomy and physiology, anatomical demonstrations and dissections, physics and chemistry. Easter Term: Anatomy and physiology, chemistry and practical chemistry, hospital practice. Also, to pass in this Easter Term the First M.B. Examination, unless intending to take honours in the Natural Science Tripos. Long Vacation: Practical physiology, practical pharmacy, hospital practice. Michaelmas Term: Human anatomy and physiology, comparative anatomy, materia medica, anatomical demonstrations and dissections, hospital practice. Lent Term: Pathology, materia medica, human anatomy and physiology, comparative anatomy, anatomical demonstrations and dissections, hospital practice. Easter Term: Pathology, materia medica, hospital practice, practical physiology. The Board consider it very desirable that students should, as far as possible, complete their general education before commencing Medical study. They also consider it advisable that students of Medicine should be encouraged to remain in the University and pursue their studies during part, at least, of the Christmas and long vacations. The same Board have issued an amended report. The only alteration concerning the additional requirements for the Third M.B. Degree is, that the time of the regulation being enforced is changed from Easter Term, 1872, to Michaelmas Term, 1872. The recommendation respecting experimental physics is amended as follows:—"That 'experimental physics' be added to the list of courses of lectures in Section 10 of Regulations for Degrees in Medicine, provided that no certificate of attendance on a course of lectures on any branch of experimental physics which is not recognised in the First M.B. Examination shall be accepted as evidence of Medical study in the University, unless the student shall produce, also, a certificate of attendance during the same term on the practice of Addenbrooke's Hospital, or on a course of lectures on human anatomy, physiology, materia medica, and pharmacy or pathology."

Examination Questions.—The following is a copy of the questions submitted to the twenty-one candidates at the primary examination on Saturday last for the Fellowship of the Royal College of Surgeons, viz.:—1. Describe, in the order in which they occur, the anastomoses of the arteries on the walls of the alimentary canal from the cardiac orifice of the stomach to the anus. 2. Describe the white corpuscles of the blood, and state the evidence which exists concerning their origin and destination. 3. Give the origin, course, relations, and distribution of the glosso-pharyngeal nerve; and describe the dissection required to expose it in its course below the base of the skull. 4. Describe the cochlea—(1) Its osseous structure; (2) Its membranous portion and the structures connected with it, including the mode of distribution of the cochlear division of the auditory nerve. N.B. *All* four questions *must* be answered. At this examination there were nine senior members of the College, four junior, five who had passed the primary examination for Membership, and three who had not passed any examination. The following questions were submitted to the candidates at the Pass Examination on Wednesday last, viz.:—1. Describe precisely the different modes of performing amputation of the thigh, and include amputation at the knee-joint. State the advantages of each mode of operation, and the reasons for selecting it. 2. A knee-joint becomes acutely inflamed, and the result is a complete ossific union of the bones. Explain the process by which this is accomplished; point out the symptoms pathognomonic of the structural changes. State the duties of the Surgeon in the treatment of such a case, and the time probably required for its natural course. 3. Give the signs which indicate the impaction of a foreign body in the œsophagus, indicating the points at which it is most likely to be arrested. Mention the various instruments that may be useful for its removal, and the circumstances under which œsophagotomy may be necessary. Then describe that operation, and give the Surgical anatomy of the parts concerned. 4. Describe wounds of the abdomen—contused, punctured, and incised; mention the parts most liable to be injured; the chief dangers attending these wounds; and give the treatment, general and local, according to the seat, nature, and extent of the wound. N.B. *All* four questions *must* be answered. At this examination there were twelve candidates—viz., five seniors and seven juniors. The names of successful candidates cannot be published until after the next meeting of the Council.

Dublin Obstetrical Society.—The opening meeting of the thirty-fourth annual session was held on the evening of Saturday, the 18th inst., in the Hall of the College of Physicians. The chair was occupied by the President of the Society, Dr. George H. Kidd. The visitors included the Presidents of the College of Physicians and Royal College of Surgeons, and the Governor of the Apothecaries' Hall. The following officers were elected to serve during the session:—*President:* George H. Kidd. *Vice-Presidents:* J. A. Byrne and H. Sibthorpe. *Treasurer:* H. H. O'Halahan. *Honorary Secretary:* Lombe Atthill. *Council:* J. Denham, Thomas E. Beatty, Alfred

McClintock, and F. Churchill. The President's address was an able review of the more modern improvements in obstetric science. The first among these of which he treated was the use of the forceps in cases of tedious and difficult labour. From the statistics of the Rotunda Lying-in Hospital, it appeared that this instrument had, during the past three years, been used by the present Master, Dr. George Johnston, on an average, once in 14·74 cases, and with the most favourable results as regarded the mortality of mothers and children. He (Dr. Kidd) defended the instrument from the charge brought against it of causing vesico-vaginal fistula. The diminished frequency of embryotomy was next taken up, and the different improvements recently made in the instruments employed in this *dernier ressort* of Obstetric Physicians were described at length. Among others, Professor Pajot's method of decapitation was mentioned. The subject of post-partum hæmorrhage was next dwelt upon, and the treatment by injection into the uterus of a solution of perchloride of iron (Barnes), and in some instances by transfusion (as in Dr. Robert McDonnell's process), were detailed. Laceration of the perineum was in many cases to be relieved by sutures, and putrid or fetid discharges from the uterus (as recommended by Dr. Hicks) by uterine injections of permanganate of potash.

Medical Women in New York.—The progress of the Medical women question on the other side of the Atlantic is shown by the fact that the Medical Society of the County of New York has amended its by-law (55 to 19 votes) in regard to admission of members, by the addition of the words "or her" after "they shall grant him" a certificate of membership.

French Medical Décorations.—M. Algave, the editor of the *Revue Scientifique*, remarks that it is difficult not to believe that France must have been the victor in the late struggles, seeing the avalanches of *décorations* that have been distributed on every side; and to all sorts and manners of men they have been given in excessive profusion. It is calculated that at Paris at least one *décoration* must have been given for every ten wounded—counting all the losses of the six months' siege. Some of the awards are said to have been the result of the most scandalous nepotism. The thirst for *décorations* which so rages in the French Medical world not only shows a want of dignity, but manifests an effect of pecuniary speculation, since patients have the simplicity to give their preference to, and pay higher fees to, decorated Doctors.

The Chicago Fire.—The *New York Medical Record* states that an active organisation has been formed by the Profession in that city for the relief of their brethren who have lost their all in the destructive conflagrations of Chicago and in the North-west. Five thousand dollars were speedily raised, and the Profession is being widely canvassed. Two-thirds of the Practitioners are for the time ruined, their houses, books, instruments, and the resources of their patients having been destroyed. "We are well aware that of all the money so liberally sent to Chicago from every quarter of the globe, and which finds its way into the General Relief Fund, but a very small proportion will be drifted into the emptied coffers of the desolate Physician. He does not, as a rule, belong to the whining class, and not being by nature importunate for help from outsiders, he is very likely to be overlooked in the general clamour after the necessaries." Dr. Hubbard, 27, West Ninth-street, is acting as treasurer.

Cancer.—More cases of cancer have been seen than during any former year. The cancerous diathesis is, generally, very strongly marked in the Chinese suffering from this affection. From their lack of vitality and reparative power, both constitutionally and arising from diet, coupled with the still further lowering of the tone of the system by opium, to which they generally have recourse to allay pain, the cases present great difficulties. The improvement in most cases has been short-lived. The man with cancer of the right lower jaw—mentioned in last Report—refused time after time to submit to an operation, when it appeared admissible, but latterly presented himself desiring interference when all hope was gone. Another man with the right cheek perforated, and three men with the lateral half of the tongue affected, presented themselves, also to no purpose. One man with the tip of the tongue in an incipient state, holds out some hope; but the case is not yet severe enough to induce the patient to submit. A beggar left the Hospital made an eunuch by this disease, apparently cured, but returned not long after with the groin affected. Advanced cancrum oris in a few children has been seen with no good results.—*Report of the Peking Hospital for* 1870, *by Dr. John Dudgeon.*

NOTES, QUERIES, AND REPLIES.

"He that questioneth much shall learn much."—*Bacon.*

We regret to announce the deaths of Dr. Steggall, of Southampton-street, Bloomsbury, and of Mr. Delagarde, of Exeter. Obituary notices of these gentlemen shall appear next week.

J. H., jun.—There will be an examination for the midwifery licence of the College of Surgeons early in the ensuing month. Write to the Secretary.

T. E., Adlington.—Yes, certainly; and sometimes a donkey.

A Reader.—It would be too much to guarantee the good sense of everybody who writes to a Medical journal. We would not undertake, for instance, to guarantee even that of our correspondent.

A Dublin Surgeon, not engaged in Kelly's case, is very wroth with the London Surgeons who lately testified to their opinion that, in the case of Talbot, Mr. Stokes had done all that Surgical skill could do, and that he acted most properly. "The Dublin Surgeon" thinks the document is an "assumption of superiority on the part of the London Profession," and so on. He publishes his protest in the *Irish Times*, and it is to be hoped by this proceeding he has "had his revenge."

Bow, E.—The celebrated Manchester chemist, Dr. Henry, F.R.S., invented the disinfecting apparatus by heat. He has been long dead. His papers, with a figure of the apparatus, are in the *Philosophical Magazine* about the year 1831. Messrs. Geo. Fraser Bros. make a well-known apparatus.

The Orthography and Pronunciation of Greek—Angels or Aogels?
TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I was glad to see your remarks last week on the barbarity of transcribing Greek, without regard to its old Latin equivalents in sound. The Latin mode of spelling Greek words is intensely valuable, because it preserves to us in many instances an authentic record of how the Greeks used to pronounce it. I will give as an example the word "angel." This is a Greek word—αγγελος—spelt with two gammas. But it is clear that the Latins wrote it "angel," softening one *gamma* into the corresponding nasal "n," because the Greeks so pronounced it themselves, else surely they would have written "aggelus," and not "angelus." Now I should like to ask some of those purists, who write "apodermic," "ecthuma" for "ecthyma," and the like, why don't they go further, and talk of the "aggels" instead of angels? Unless the old pronunciation had been "angel" the Latins would never have written it so; and St. Gregory would never have made his famous pun, "*Non Angli, sed angeli;*" and St. Augustine might never have been sent to convert the descendants of Hengist and Horsa; and we might have been eating raw horse-flesh, beating our wives, drinking mead out of skulls, boiling prisoners of war alive, and doing other good old-fashioned Anglo-Saxon deeds up to the present time. I am, &c.,

Nov. 20. Vox et Præterea Nihil.

The Action of Condy's Fluid on Metals.
TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—In the notice of Mr. Gaidner Brown's patent self-acting disinfector, which appeared in your issue of the 11th inst., you state that chloralum, chlorinated lime, and Burnett's fluid cannot be used with that apparatus, on account of their energetic action on metals, but that there is no objection to Condy's fluid on that score. I would ask you whether you are quite sure of the accuracy of the above statement as to the behaviour of Condy's fluid with metals, because I find that Dr. Angus Smith, in his evidence before the Army Sanitary Commission, has asserted that the latter preparation acts energetically on metals. My own impression is that it does not. I am, &c., Jesh Oakman,

Medical Officer of Health for Battersea.

The Square, Battersea, S.W., November 21.

Physic *versus* Physics.

A man, whose leg a train had lopp'd,
Leaving a shapeless lump,
Came to the Hospital—and there
They lopp'd away the stump.

When asking, under chloroform,
Why *two* must be endured,
They said that men of Med'cine held
That like by like was cured.

He groan'd in silence, and with grief,
For such a wasted leg;
To go on such extremities,
Would henceforth seem to beg.

"Alas! like maids in wedlock, woes
Come rarely single," said he;
"Their theatre of operations,
Is large and ever ready."

Stump must supply what Nature gave,
To every expectation—
A limb which well might illustrate
"Chance upon Malformation."

The Surgeon, saying few believed
In bleeding and in blue pills,
Unsheath'd his weapon, to the joy
Of his dilated pupils.

The limb now fell beneath the stroke
A butcher's knife inflicted,
And, gathered to its fathers, soon
Was ruthlessly dissected.

Oh, Hospital-ity! thy sons
Co-operate so readily,
And this is why their students 'tend
The theatres so *steadily*.

He lingered on in wretched plight,
No medicine but the Bible,
With ecchymosis of the eye,
Chemosis of the eyeball.

Morbid his thoughts and tissues now,
His lachrymation plenty—
Proving a *sympathetic* nerve—
Repenting, though *repentè*.

To broken leg a broken heart,
And mental agitation;
While sighs, denoted puerile,
Disturbed his respiration.

But when the right leg passed away,
The wrong leg sympathised;
For, while the one was dyeing sheets,
The other nearly died.

Great by example as by toe,
This leg behaved ridiculous;
And, just as men go into mourning,
Went into erysipelas.

But now the art that saves came in,
To that which cuts and mangles;
And Medicine saved the life which hung,
Like fishes hang, on *angles*.

The *left* leg triumph'd o'er the *right*,
By few prescriptions pithy;
That cured by Abercrombie's art,
And this by Abernethy.

C. A. F.

A Newly-flayed Sheep's Skin applied to Sir Walter Scott.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I was interested at seeing by your last number that Mr. Le Sage, of Stratford-on-Avon, had used the old remedy of animal warmth, by applying a recently flayed sheep's skin to a poor child whose legs had been torn off. It is a practice with a venerable parentage, and it may interest your readers to compare the following description of it in Sir Walter Scott's Autobiography.(a) It is well known that Scott, when an infant cutting his teeth, suffered an attack of what is stupidly called "essential paralysis," affecting his right leg. After the regular faculty had given up the case, he became the subject of every form of treatment recommended by friends of the family. "Amongst the odd remedies," he said, "recurred to, to aid my lameness, someone had recommended that so often as a sheep was killed for the use of the family, I should be stripped, and swathed up in the skin, warm as it was, flayed from the carcase of the animal. In this Tartar-like habiliment I well remember lying upon the floor of the little parlour in the farm-house, while my grandfather, a venerable old man with white hair, used every excitement to make me crawl."—(P. 15.) Formerly the Bath waters (or Waters of the Bath, as they were called) were recommended for paralysis, because they were not merely hot, but impregnate with the "essential heat" contained in the bowels of mother earth; so the sheepskin was considered not merely hot, but hot with "vital heat." I am afraid that in these materialistic days most of us look upon heat as a "mode of motion," and vital heat as a result of oxidation. But the reeking sheepskin may not be a bad remedy for a poor devil bruised and battered, for all that.

November 21. I am, &c., A Borderer.

COMMUNICATIONS have been received from—

Mr. G. Elder; Dr. Phillips; Mr. G. Willis; Mr. Macintosh; Dr. Finucane; Dr. Allbutt; Mr. R. H. Coombs; Dr. Stille; Mr. H. C. Lawrence; Dr. Fayrer; Dr. B. Hawkins; C. A. F.; Mr. H. Baker; Mr. B. Seymour; Dr. Handsel Griffiths; Dr. J. Matthews Duncan; Mr. T. P. Wills; Dr. Sedowick; Dr. Braxton Hicks; A Reader; Dr. R. D. Powell; Dr. W. Newman; Mr. Docker; Mr. T. Eccles; Mr. Oakman; Messrs. Southall, Son, and Dymond; Dr. J. Wilson; F.R.C.S.; Dr. Tutbill Massy; Mr. Jonathan Hutchinson; Mr. A. S. Bostock; Dr. J. R. Hardie; Dr. J. Williams (Malvern); Mr. J. Chatto; Dr. John Chapman; Dr. Althaus.

BOOKS RECEIVED—

Bickersteth's Introductory Address on Recent Progress in Surgery—The Clinical Thermometer: its Lessons and Teachings Tentatively Expressed in Numbers, by Dr. McElroy—Alston's Medical Notes on Yellow Fever in Buenos Ayres during 1870-71—Transactions of the Pathological Society of London, vol. 22—De l'Arsenic considéré comme Antidote des Maladies Infectieuses, par le Dr. C. Despiney—Du Drainage dans les par Armes de Guerre, par Le Dr. F. Christot—Inaugural Address delivered at the opening of the Annual Meeting of the American Medical Association, by Dr. Stillé—Ganot's Physics, Fifth Edition—Welch on Granular Ophthalmia—Report on the Health of the Navy for the Year 1869—Furneaux Jordan on Clinical Education—Dobbs on General Representation.

PERIODICALS AND NEWSPAPERS RECEIVED—

Irish Times—Chemist and Druggist—Nature—Pharmaceutical Journal—Bedford Times—North British Daily Mail.

APPOINTMENTS FOR THE WEEK.

November 25. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; King's, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

27. *Monday*.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Medical Society of London, 8 p.m. Mr. Alfred Freer (of Stourbridge), "A Case of Impalement." Mr. Wm. Adams, "A Case of Webbed Fingers treated by Mr. Tamplin's Instrument." Mr. Brudenell Carter, "Ophthalmic Demonstrations."

28. *Tuesday*.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Royal Medical and Chirurgical Society, 8½ p.m. Mr. Fairlie Clarke, "On Unilateral Atrophy of the Tongue." Dr. Priestley, "On Intermenstrual or Intermediate Dysmenorrhœa."

29. *Wednesday*.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 2 p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Society of Arts, 8 p.m. Mr. W. Bridges Adams, "On Tramways and their Structure, Vehicles, Haulage, and Uses."

30. *Thursday*.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; West London, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

December 1. *Friday*.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

(a) "Life," by Lockhart (abridged). Edinburgh: Black. 1871.

VITAL STATISTICS OF LONDON.

Week ending Saturday, November 18, 1871.

BIRTHS.

Births of Boys, 1100; Girls, 976; Total, 2076.
Average of 10 corresponding weeks, 1861-70, 2047·3.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	807	819	1626
Average of the ten years 1861-70	780·8	751·2	1532
Average corrected to increased population	...	...	1685
Deaths of people aged 90 and upwards	...	...	...

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561189	6	2	6	1	10	...	6	2	4
North ...	751668	40	21	7	2	7	...	6	...	3
Central ...	333887	4	5	5	1	1	1	3	...	3
East	638928	12	14	5	2	7	2	6	3	2
South	966132	14	7	17	...	11	2	6	2	5
Total	3251804	76	49	40	6	36	5	27	7	17

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·911 in.
Mean temperature	35·3°
Highest point of thermometer	51·0°
Lowest point of thermometer	25·0°
Mean dew-point temperature	31·0°
General direction of wind	Variable.
Whole amount of rain in the week	0·29 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, November 18, 1871, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1871.*	Persons to an Acre. (1871.)	Births Registered during the week ending Nov. 18.	Deaths Registered during the week ending Nov. 18.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3263872	41·8	2076	1626	51·0	25·0	35·3	1·81	0·29	0·74
Portsmouth ...	113450	11·9	68	49	55·8	25 8	38·5	3·61	0·22	0·56
Norwich	80533	10·8	49	57	50·8	24·0	36·0	2·22	1·10	2·79
Bristol	183298	39·1	127	90	...	...	...	...	...	...
Wolverhampton ...	68476	20·2	44	57	49·8	24·1	36·1	2·28	0·33	0·84
Birmingham ...	344980	44·1	251	167	50·8	26·3	37·2	2·89	0·41	1·04
Leicester	95882	30·0	85	40	51 2	23·0	35·9	2·17	0·43	1·09
Nottingham ...	86929	43·6	81	44	52·2	22·7	35·9	2·17	0·72	1·83
Liverpool	493649	96·8	374	263	50·8	30·2	39·8	4·33	1·18	3·00
Manchester ...	356099	79·4	224	212	51·8	24·0	36·1	2·28	0·84	2·13
Salford	125422	34·3	81	60	50·7	24·0	36·5	2·50	0·77	1·96
Bradford	146987	22·3	111	72	51·6	27·0	38·8	3·77	0·12	0·30
Leeds	260657	12·1	187	123	53·0	29·0	38·0	3·33	0·31	0·79
Sheffield	241507	10·6	193	136	53·0	26·5	37·4	3·00	0·63	1·60
Hull	122266	34·3	69	51	50·0	22·0	35·2	1·78	0·58	1·47
Sunderland ...	98797	29·9	88	79	...	...	...	...	...	...
Newcastle-on-Tyne	128677	24·1	86	78	48·0	29·0	36·8	2·66	0·21	0·53
Edinburgh	201728	45·6	108	95	52·0	22·0	35·8	2·12	0·00	0·00
Glasgow	479227	94·7	305	280	...	...	...	...	...	...
Dublin (City, etc.)	310565	31·9	172	168	54·8	24·8	40·3	4·61	0·13	0·33
Total of 20 Towns in United Kingd'm	7204001	33·8	4779	3747	55·8	22·0	37·0	2·78	0·49	1·24

At the Royal Observatory, Greenwich, the mean reading of the barometer in the week was 29·91 in. The highest was 30·19 in. on both Monday and Saturday evenings, and the lowest 29·60 in. on Wednesday morning.

* The figures in this column are the unrevised numbers enumerated in April last, raised to the middle of the year by adding 1-40th of the rate of increase which prevailed between 1861 and 1871. As the population of Dublin and its suburbs showed a decline between the Censuses of 1861 and 1871, the enumerated number in April last has been inserted for that city, the population being assumed to be now stationary.

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,, Battley & Watts.	,, Evans, Lescher, & Evans.	,, Hodgkinsons, Stead, & Treacher	Messrs. Wright, W. V., & Co.
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ORIGINAL LECTURES.

CLINICAL LECTURES ON OPHTHALMOLOGY,

DELIVERED AT

St. Thomas's Hospital,

By R. LIEBREICH,

Ophthalmic Surgeon and Lecturer to the Hospital.

Lecture V.

ON A NEW METHOD OF EXTRACTION OF CATARACT.

Gentlemen,—Until now we could perform but small operations at our Thursday meetings. The Ophthalmic Ward having been opened last week, we shall be able to receive patients for operations of greater importance. We shall begin with cases of iridectomy and cataract; and as for this latter, I shall have to explain to you my new method of extraction, the more detailed description of which will appear in our next Hospital Reports.

The frequent occurrence of total suppuration after flap-extraction induced the celebrated operators of Moorfields Hospital to return to, and to improve, the linear extraction, which at that time had been almost abandoned. Graefe, struck with the results which Messrs. Bowman and Critchett had obtained, submitted the question to further studies, and so formed the method which is now generally adopted in England as well as on the Continent.

There are numerous statistics which prove that in Graefe's method there is a much smaller percentage of total suppuration than in flap-extraction; also that, even in cases of very bad general constitution, weak and marastic individuals with thin and flabby cornea, the prognosis is not so unfavourable as in flap-extraction; and that the precautions we have to take after the operation, and the restrictions we have to impose upon the patient, are not so great.

On account of these advantages of Graefe's method, it was natural that the flap extraction was soon abandoned. To me, however, it appeared that the mechanism of Graefe's operation was still too complicated and too violent; that prolapse of the vitreous body and hæmorrhage into the anterior chamber were too frequent during, and iritis and strangulation of the iris in the corners of the wound too frequent after the operation; and that the most favourable results, compared with the most favourable results in flap-extraction, were not yet perfect enough.

If these inconveniences are carefully inquired into, it is found that they can all be brought back to one and the same principal cause—namely, the peripheric position of the incision. This peripheric position is—

1. The reason why it is impossible to remove the lens without iridectomy.

2. That the excision of the iris is to be large and extensive, else it causes too great an inclination to prolapse of the iris.

3. That it is necessary to perform the operation above, so as to cover a part of this large pupil by the upper eyelid. The removal of the lens upwards is by far more difficult, on account of the tendency of the eye to escape upwards; and, consequently,

4. During the whole operation the eye has to be kept open by the speculum, and to be drawn downwards by the forceps. This is not only painful and injurious to the eye itself, but causes—

5. Not unfrequently prolapse of the vitreous body, to which a peripheral incision itself already tends. Prolapse of the vitreous body and hæmorrhage into the anterior chamber are the chief impediments to a careful removal of all the *débris* of the cortex, and cause—

6. Those grave forms of iritis which are sustained by the permanent irritation caused by the tumefied remainders of the lens behind the iris.

Of those disadvantages I was perfectly aware after I had followed for a short time Graefe's original plan; and I proposed, therefore, in 1867, in an article on Cataract which I wrote for the *Nouveau Dictionnaire de Médecin et de Chirurgie* (Paris: Baillière), some modifications. They are, however, but the first step I made; and in the last four years I have come, by a large series of systematic experiments, to a method which I now—after more than 300 operations performed in this manner—consider definitely settled.

The incision of the cornea is to be made with the smallest possible Graefe's knife in the following manner:—

Puncture and contrapuncture to be situated in the sclerotic about one millimetre beyond the cornea, the whole remaining incision to pass with a very slight curve through the cornea, so that the centre of it is about one millimetre and a half distant from the margin of the cornea. This incision can be made upwards or downwards with or without iridectomy, and the lens can be removed through it with or without the capsule.

If, as I now practise, the extraction is made downwards without iridectomy, the whole operation is reduced to the greatest simplicity, and does not require narcosis, assistance, elevator, or fixation; but only calls into requisition two instruments—namely, Graefe's knife, and one cystotome, with Daviel's spoon.

What are the advantages of this method of operating?

1. It is undoubtedly of all methods the simplest and the least painful.

2. It is unconditionally the easiest to perform, and requires the least practice. It may, therefore, be performed by those operators who from time to time only have an opportunity of doing so; and those patients benefit by it who are unable to reach a central point in order to place themselves in more practised hands. On account of the greater facility of operating, the last pretext for reclination of cataract is removed, which, though almost universally and justly condemned, is still here and there performed.

3. It is preferable to the flap extraction, on account of the safer and constantly regular incision. The flap incision scarcely ever acquires the regularity which may theoretically be demanded—even if made by the most practised operator, with the best assistance, the most enduring patient, or under chloroform—by the use of elevator and fixation instruments. Now its height or breadth is not what it is intended to be; now its position is incorrect, or the wound irregular—indeed, part of it is due to the difficult form of the incision; but by far the greater part, according to my conviction, is due to the mechanism by which the cuneiform cataract-knife is to make the incision. A small Graefe's knife would make a flap safer and more regular than the various other cataract-knives. The incision I designed can easily be made, in giving it in every case exactly the desired form and position—even if the patient is very restless—without assistance, without elevator or fixation. It mainly depends on the facility with which the place of the contrapuncture can be chosen, the knife drawn back and made to pierce at another point if a mistake is made in the selection of the place for contrapuncture, and in the freedom with which, in terminating the incision, the inclination of the knife can be changed, if necessary.

A little practice will enable every operator to avoid these corrections, and to make the contrapuncture, as well as the whole incision, correctly to his original plan, without subsequent alterations.

4. Against Graefe's method it has the advantage of a more favourable position of the field for the operation, and avoids through it all the inconveniences to which I have referred, as arising out of the peripheral position of the wound.

5. In regard to the mode of healing, it favourably contrasts, like Graefe's method, with the flap extraction, on account of the diminished influences which age, constitution, general state of health, season, and other causes exert; also on account of the less demand made upon the patient to remain quiet after the operation; and, above all, on account of the lesser tendency to suppuration of the cornea.

6. The advantages of my method over that of Graefe are shown by the ultimate results obtained—by not showing a greater percentage of total suppuration than in Graefe's method, my best results are, in regard to optical and (if I may use the term) anatomical perfection, identical with the best results obtained in flap-extraction.

ORIGINAL COMMUNICATIONS.

TWO CASES OF A HÆMORRHAGIC DIATHESIS IN WOMEN.

By J. WICKHAM LEGG, M.D.,
Casualty Physician to St. Bartholomew's Hospital.

Mary Ann B., aged 37, applied at St. Bartholomew's Hospital on August 7, 1871, for the relief of bleedings from the nose, and pains in the shoulder. She says that she enjoyed good health until she was about 15 years old; she then began to grow thin and pale; for a few minutes she would lose all recollection; going on an errand, for example, she would forget, while on her way, for what she was sent. She was treated for this complaint by a Physician for three months. Menstruation had begun at 13 years of age, but continued during this illness; but from the very first the discharge was always excessive and irregular, appearing about every fortnight or three weeks, menstruation often lasting a week.

When 18 years old she was married, and eleven months after marriage she was delivered; the flooding was excessive, and there was also much flooding while suckling the baby. She has been pregnant twelve times; several children were still-born, and seven are now alive. There was always great flooding after delivery.

She cannot exactly say when she first became subject to bleedings other than the floodings. She is positive, however, that before marriage she was not subject to hæmorrhage. Twelve years ago she made a cut on the thenar eminence of the thumb; the bleeding was excessive, lasted several days, and was only stopped by compressing the wrist. Now she bleeds very much from slight wounds; pricks and cuts, which another person would not notice, bleed in her for ten or fifteen minutes. She cannot remember exactly when the ecchymoses and petechiæ first began; she thinks it is not more than two or three years. During her pregnancies she used to bring up blood with a cough. The day before she applied at the Hospital she passed some blood with her motions, and the same thing had happened a few months before. The bleedings from the nose first began about ten months ago; the bleeding is very frequent. She says, also, that the nose bleeds every morning when first she wakes, and that if the blood did not come she would feel uncomfortable. Two months ago the flooding became so great that she had to keep her bed for four days; great clots were passed, but she cannot guess how much came away.

Last autumn the right knee became swollen and stiff, and this lasted till the May of the present year. Five weeks ago she found her left arm growing weaker, and a pain in her left shoulder to increase. The pain in the left shoulder began when she was 11 years old, after falling upon her hand and jarring her shoulder. During the last few months she has lost flesh.

Her father died, when 50 years old, of "consumption following an accident." Patient does not know of any ill-health until this accident. Her mother died, over 54 years old, of "a diseased liver." She was subject to severe and frequent bleedings at the nose. She bore eight children; only two, a daughter, aged 47, and present patient, are now alive. This daughter is in good health, and not subject to bleedings. The first child and the last two were stillborn; the other three died young, of acute diseases. Her father had only one brother, about whom she knows nothing. Her mother's brothers all died before patient can remember; two, she believes, died of consumption.

The patient has borne twelve children; seven were boys, of whom five are now alive, but none subject to bleedings. She has a daughter, the third child, now about 15 years old, who has frequent bleedings from the nose; but her mother and daughter are the only relations, of whom she knows, that are in any way subject to bleedings.

Present State.—The woman is highly anæmic; the face is pale and flabby; blood from the finger shows no increase in number of white corpuscles, nor is the spleen enlarged. Nothing unnatural can be detected with the shoulder or knee. Twenty minims of the tincture of the perchloride of iron were given in water three times a day.

October 25.—The woman has been very irregular in her attendance at the Hospital, but the bleedings from the nose have almost disappeared. The pain in the shoulder is still severe. Her anæmia has greatly diminished; the mucous membranes and face are now quite ruddy.

November 9.—The day after the last visit she had a severe bleeding from the nose, which lasted quite an hour. It came on again the next day, and continued nearly the whole of the day. She complains to-day of a cough, which has lasted three or four days. She was directed to take two fluid drachms of cod-liver oil, in addition to the steel.

The following are the notes of a case which occurred at St. Bartholomew's Hospital among the out-patients under Dr. Gee's care. I wish to express my thanks to him for his kindness in drawing my attention to the case, and also for allowing me to publish an account of it.

Louisa C., aged 30, applied at St. Bartholomew's Hospital, on August 5, 1871, for the relief of bleedings from the nose and of floodings. She says that she was not subject to bleedings, nor to blue marks when bruised, before puberty; she is quite sure of this. Menstruation began when 16 years old, and it was always irregular and excessive. She enjoyed good health up to the time of her marriage at 19, but since that time she has never been quite well. Soon after marriage the discharge at the catamenial periods became a flooding, lasting for eight days; sometimes she would have floodings lasting six weeks. She did not become pregnant till two years and three months after marriage. During the pregnancy there were no floodings. The child (a girl) was born at the end of the third year of marriage. The labour was hard, and instruments were used. A flooding took place at the birth of the child, and also a fortnight later. The baby was suckled fifteen or eighteen months, and during lactation no floodings took place. The next pregnancy ended in a miscarriage at the fourth month—fifteen months after the birth of the first child. There were no floodings. A year and nine months after this miscarriage she was delivered of a boy, with no floodings. She was next delivered of a girl, one year and eleven months after the birth of the boy. In the seventh month of this pregnancy the first bleeding from the nose came on. At first it lasted twenty-four hours. The nose was then plugged, and thus the bleeding was stopped for a time; but it soon came on again, and lasted off and on till the end of the pregnancy. After delivery she noticed that, whenever she bruised herself ever so slightly, the place became black; she also noticed that several black and blue spots came of themselves, without any known cause. At the same time she observed that when she wounded herself the bleeding was very great, and lasted for a very long time. All these symptoms have continued up to the present time. A few weeks ago she cut her thumb; the place bled continuously for twenty-four hours. There are now on the shins and forehead black patches, which, she says, were caused by very slight blows. The fourth confinement was two years and a month after the third. During this pregnancy bleedings from the nose were common; the bleedings would sometimes last so long as four days together, and very commonly all day; they came on every three or four weeks. There was no flooding during the pregnancy, but great flooding at the labour. She was delivered of a girl. The next confinement was in two years. The boy died when 8 months old, of diarrhœa. Soon after this confinement she had a white swelling of the right knee, which lasted for about two months. On examining the knee, the bursa patellæ is found distended with fluid, and she says this was the part which was most inflamed; that it was probed, and stuff like the white of an egg came out.

Her father is alive, aged 60, "well and hearty." He is not subject to bleedings. Her mother is also alive, aged 58; she has pretty good health. She tells patient that she was much surprised to hear of her disposition to bleed, for none of her family were at all subject to such a complaint. Her mother did not have great floodings at her confinements, nor at the "change of life." She bore ten children—two sons and eight daughters. Both the sons are alive; the elder, aged 25, is not strong; he is pale and weakly, and has been subject to bleedings from the nose since he was 22; any exertion or worry will cause his nose to bleed; since he was 17 he has bled more than natural when wounded; he has never had any swellings of his joints. The second son is 19; he is not subject to bleedings. Two daughters are dead—one of "enlargement of the heart," the other of "typhus fever"; the menstruation of the latter was always defective. None of the other daughters have excessive menstruation. None of the patient's own children are liable to bleedings.

Present State.—Dr. Gee informs me that he was unable to detect any enlargement of the spleen, or any increase in the number of the white corpuscles in blood drawn from the finger.

The woman is highly anæmic; she has very light brown hair, and grey eyes, and is of moderate stature.

Under Dr. Gee's direction, the ergot of rye was given, but without any success in stopping the hæmorrhages; on the contrary, they became so urgent that the oil of turpentine was given, in ten-drop doses, every two hours; this checked the hæmorrhages, especially the flooding, for a week or ten days. At the end of that time they returned with great severity. During the last month (October), the tincture of the perchloride of iron has been given in half-drachm doses three times a day, with marked benefit, the hæmorrhages having very much abated.

These two cases so closely resemble each other in their history and symptoms that they may be most conveniently studied together. It will be seen that both are cases in which a hæmorrhagic diathesis showed itself after puberty; in which there was only slight hereditary tendency to hæmorrhage, and none to a hæmorrhagic diathesis. The diathesis showed itself by traumatic and spontaneous hæmorrhages, and ecchymoses and petechiæ under the skin. In both there was also said to be some affection of the knee-joint, but this proved in one case to be only an inflammation of the bursa patellæ.

The diagnosis, therefore, was a matter of some difficulty. At first sight the resemblance to hæmophilia seemed complete; there were present traumatic and spontaneous hæmorrhages, ecchymoses, and in one case a swelling of the knee-joint. But on further inquiry there appear good grounds for rejecting the diagnosis of hæmophilia. Hæmophilia is essentially a congenital disease, and in these cases there were no symptoms till after puberty. Again, there was no history of hæmophilia in the relations; and, what is of great importance, the women had not transmitted hæmophilia to their sons. Had the mothers been suffering from hæmophilia, hæmophilia would, following its law of hereditary transmission, beyond a doubt have reappeared in its most intense form in the sons of these women. It has been seen that the sons are quite free even from any tendency to bleed. On these grounds the diagnosis of hæmophilia appeared to me to be insufficiently established, and the cases were referred to a class of hæmorrhagic diathesis, the natural history of which has not yet been worked out.

To this class of hæmorrhagic diathesis belong the case, supposed to be acquired hæmophilia, of Magnus Huss (*Arch. Gén de Méd.*, 1857, vol. ii., p. 165); the case of Higginbotham (*St. Petersb. Med. Ztschrft.*, 1869, Bd. xvi., p. 111); and the old cases of Patrick Murray (*Edinb. Med. Essays and Obs.*, vol. ii., art. xx.) and Boivin (*Dict. des Sciences Méd.*, t. iv., p. 188).

No post-mortem examination of these cases has, so far as I know, been made. The blood appears to be natural in its naked-eye and microscopic appearances. In the four cases quoted above, the disease made its appearance after some great mental emotion. It is possible that it may be connected with a lesion of the vaso-motor nerves. The disease does not appear to shorten life.

As to treatment, large doses of the tincture of the perchloride of iron seem to be of most use. A nourishing diet is, of course, of considerable importance.

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CEREBRAL AND GANGLIONIC DISORDERS OF MENTATION.

By METCALFE JOHNSON, M.R.C.S.E., L.S.A.

Part II.

Mr. Lecky says,(a) "He who raises moral pathology to a science will probably take a place among the master intellects of mankind." But past history tells us that the pioneers of advanced truth must look for briars and thorns in their path in life, and that the laurel crown must be worn only after the cold brow has been encircled by the wreath of "immortelles"; for "In the kingdom of the blind," says Helvetius, "who is most odious?—He that can see clearly." In the empire of ignorance the same fate attends the enlightened inhabitant. Between those who *realise* phenomena (spiritualists) and those who phenomenise realities (Berkleyans) the number is small who are content with objective experience. The *pre*conception of metaphysics is so mixed up with pietistic creed that there is a reluctance on the part even of thinking men to accept literally the psychology of the scalpel. Nevertheless, "mind and body are so closely connected that even those who most earnestly protest against materialism readily admit that each acts continually upon the other."(b)

I have elsewhere(c) called attention to the relation of the ganglionic system to mentation, and endeavoured to show that the sympathetic nerve presides over the instincts, controls the vascular supply to the grey matter of convolutions, and influences the organs concerned in the vital process—nutrition and reproduction,—while the cerebro-spina is the storehouse of sensation and reflex action. Condorcet says(d)—"L'homme nait avec la faculté de recevoir des sensations, d'apercevoir et de distinguer dans celles qu'il recoit les sensations simples dont elles sont composées, de les retenir de les reconnaître, de les combiner, de conserver ou de rappeler dans sa mémoire, de comparer entre elles ces combinaisons, de saisir ce qu'elles ont de commun et ce qui les distingué, d'attacher des signes à tous ces objets pour les reconnaître mieux, et s'en faciliter de nouvelles combinaisons. Cette faculté se développe en lui par l'action des *choses extérieures*."

The distinction between cerebration and ganglionism in the development of the function of mentation is here the more insisted on because post-mortem investigation is too often abandoned in consequence of the failure to find morbid lesion of cerebrum to account for the phenomena of insane mentation.(e) Under this view of the case, elucidated by a paper on "Hedonism" (in *Medical Times and Gazette*, April 8, 1871), the brain is considered not so much as *the* organ of mind, but as one of the "force-centres" of which mentation is the nervous or spiritual "sum."

The present ignorance as to the function of each particular lobe or gyrus of the brain may be materially lessened by continued pathological and physiological investigations of the separate parts of the organ. And here I may be allowed to say that a perusal of Dr. Turner's (Edinburgh) pamphlet on the convolutions has added much of interest to post-mortem examinations of the brain. The example of M. Prideaux in his investigation of the functions of the cerebellum (see *Medical Times and Gazette*, November 20, 1869) is worthy of more frequent imitation. A more critical attention to the comparative anatomy of the brain of the vertebrata, side by side with the fœtal changes of development in intra-uterine life, would add much accuracy to our notions respecting that most interesting question of "arrest of development." The cases herewith recorded present for consideration numerous points of interest, some of which I will now attempt to indicate.

The Cases 1 and 2 (A. B. and B. B.) are instances of microcephaly in which is demonstrated a larger amount of intelligence than might have been expected. In these two people there was an absence of power to combine facts to form an inference. The power seemed limited to a reproduction by memory of single past experiences. Possibly Mr. Maudsley might consider this an evidence of Thieroid degeneracy, as it would seem that one of the apparent points of difference in the mentation of the brutes and man consists in the power of the former to receive simple sensations, and of the latter to combine the results of the five channels of sense, and to apply them by reproduction to compound or constructed ideas. The mental development in both is characterised by a power of language sufficient to receive and convey their daily wants. The first deficiency of power is in muscular sense, evidenced by ungainly gait and want of power to execute delicate muscularity. A second deficiency is indicated by an absence of moral sense: A. B. once told me, without consciousness of anything wrong, that B. B. had struck the person who took care of them so severely that it "deaded" her. Another deficiency was that of memory. Again, she was deficient in the power of adaptation. She would, if employed in washing clothes, continue the operation on one article all day, if not ordered to give over. B. B. has rather more power of adaptation. As a coal-carter, he is neat about his work, and clears up as he goes on, picking the places in the heap with his shovel in which the coals fall easiest.

H. C. (No. 3) is an idiot of a more common form, although presenting larger measurements.

It is worthy of remark that the angle formed between a horizontal line (proceeding from the tragus across the nose) and the eyebrow or temporal-measurement is very constant, and corresponds with the base of the skull containing corpus striatum and thalamus opticus, in which limit, it would seem from Fleurens' experiments, are contained the sources of

(a) Lecky, "European Morals," vol. i., p. 167.

(b) Lecky, "European Morals," vol. i., p. 169.
(c) *Lancet*, September 28, 1869.
(d) Condorcet, "Progrès de l'Esprit Humain."
(e) Wilks, Guy's Hospital Reports.

automatic actions. A consideration of the experiments of Fleurens, together with the other anatomical facts of the case, seem to point out that the seat of conscious feeling or sensation resides in some part of the brain which is removed in the pigeon (convolutions of grey matter), but that automatic action may be carried on as a reflex act, without the assistance of conscious volition. In these two cases the seat of automasis, then, is perfect, but the surface which performs the perceptive sense, evolves the reproduced or restored sensation (memory), and produces compound sensations or ideas, is deficient—hence the deficient power of mentation. No doubt the similitude of the pigeon recently deprived of convolutions, which have educated the powers of automasis from the central ganglia, is not true to the man congenitally deficient in convolutions.

A. D. (No. 4) presents a small brain, with deficient power, which under temporary disturbance becomes necessarily the subject of control. The intelligence, however, is on the whole sufficient to render her "worth her salt" as a servant.

As we rise in the scale we have B. E. (No. 5) possessing sufficient intelligence to earn an independent living as a factory operative, but who, on the accession of some disturbance, probably genital (catamenia had ceased three years), loses her power of self-control, and requires the supervision of an asylum.

In A. F. (No. 6) we have increased measurements, a higher development of cerebrum; but under ganglionic derangement the power of self-control is lost. I have generally found the delusion about creatures devouring the food in the bowels very permanent, and associated with apparent brain-disease.

In C. G. (No. 7) we have larger development of cerebrum over the crown of the head; but with a defective intelligence which is congenital in this case, the deficiency is in quality of cerebrum. Her being Irish may account for some strangeness of manner.

We now come to A. H. (No. 8), and are presented with what is ordinarily termed a sane man, who is admitted to serve in the army for some years. There is, however, a manifest deficiency in the occipital measurement. Here was a radical defect, which may have assisted an unruly ganglionic nerve to produce a disordered hedonism, such as his assuredly was. This was a most difficult man to manage. He was too cunning for ordinary legislation.

J. K. (No. 9) is chiefly remarkable for having a good head, heavy brain, but one that, like many others, became subject to the "*chose extérieure*" alcohol. As such, the early interference of a parental state might have made him a tax-payer, not a tax-consumer—a productive, instead of a non-productive article. (*See* "Sane or Insane," *Lancet*, March 19, 1870.)

The interest attaching to No. 10 (C. L.) is due to the enlarged condition of the left lateral ventricle, which was, in all probability, due to infantile hydrencephalus. The result of the full-grown physique of this man—the "sum" of his "force centres"—was a strong bony man, of very powerful build; a very coarse, and almost ferocious, aspect of face; a rather ungainly gait, slightly stooping, and flat-footed; his hair very coarse and rough. He would live for weeks without soap and water, and was only shaved about once a week. His manner was shy, and at the same time rough and bearish; his voice harsh. He was very cunning, and fond of drink. His great strength made him useful in carrying sacks of corn, for which he would always get paid by both buyer and seller if possible. If sent with a message, he would always be paid by the sender, and would ask for pay from the receiver as well. He spent his money in drink. His manner was so reserved that it was impossible to form an accurate gauge of his intelligence, so as to estimate the defect of his mind caused by the abnormity. On broad principles, it might be said that he exhibited signs of deficiency in the moral sense—in the power of acquiring facts, and of retaining or reproducing them; but the perverted hedonism of his nature led to such erroneous ideas of right and wrong that it was impossible to analyse his mind with any prospect of a successful result.

No. 11, A. O., is remarkable for the symmetrical shape and large size of his head, while the amount of his intelligence is so small. He is "a merry little grey fat man," who always laughs at everything said to him, and shows other marks of deficient shrewdness. Of his early history I have no means of obtaining the particulars.

No. 12, B. J., was an intelligent lad to the age of 9 years, when he had several fits, and from that time his intelligence seems to have disappeared. He is now simply a man with a pleasing countenance, an ungainly gait, a limited power of comprehension when spoken to, and a versatile disposition. If he takes a liking, he will be guided by a person to work or employment; but if he dislikes, he is very violent, so much so that he has been obliged to be dismissed from the home of a relative to the workhouse in consequence of his ferocity. His relatives are remarkable for eleverness, and possibly (as was most likely the case in No. 10, C. L., and No. 11, A. O.) he has narrowly escaped being a man of considerable talent. The measurements of Nos. 13 and 14 are inserted for comparison, as being those of men much above the average of intellect and culture.

The case of No. 15, H. M., is chiefly remarkable for a disordered hedonism, probably due to hereditary—or, at any rate, inborn—abnormity, whether of structure or quality we have no means of judging.

The two following cases (16, E. N., and 17, O. P.) have a special hearing on the influence of the ganglionic system on mentation and on life. As will hereafter be shown, although at present the least attractive, they are the most important in a socially moral and in a political-economy point of view.

One remarkable feature in Case 17, O. P., was the eating of onions. The quantity she consumed was very large; she vomited most of them back, but some passed per alveum. This is a striking feature of cases of ganglionism, that they frequently exhibit not only taste, but all the senses in a depraved state, as is shown by the distaste for sugar, the readiness to take assafœtida and the fetid preparations in hysteria. There is also an inclination to say very dirty things—to use words which fill our minds with astonishment—to commit actions of the most offensive kind with apparent pleasure and satisfaction. Cases of this kind are too common in every Medical man's experience to need the record of more of them. The most refined and modest woman, under ganglionic disorder, will betray a knowledge of the dirty or night side of nature which her friends could never suppose she had even heard of, much less have revolved in her mind.

(*To be continued.*)

CLINICAL REMARKS
ON THE SEVERAL FORMS OF PULMONARY PHTHISIS.

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(*Continued from page* 124.)

On Hæmorrhagic Phthisis—Subject divided into Hæmorrhagic Phthisis proper and Recurrent Hæmoptysis: Distinction between the two—True Hæmorrhagic Phthisis very rare; difficult to ascertain the true relation of the Hæmoptysis to the Primary Disease: Views of Niemeyer—Illustrative Case of Hæmorrhagic Phthisis—Remarks: (1) *Why considered a Case of Phthisis;* (2) *Why Hæmorrhage not Bronchial, and affecting Lung secondarily;* (3) *Why probably coincident with and caused by Active Pulmonary Congestion; General Conclusion, with Definition of Hæmorrhagic Phthisis; further Points for and against Hæmorrhage in such Cases being Bronchial—Disease has no relation to Hæmorrhagic Diathesis—Remarks on Treatment: Value of Thermometer as a Guide.*

The term "hæmorrhagic phthisis"(a) has crept into use to distinguish those cases of phthisis which have a distinctly hæmorrhagic origin, and also those in which, however they may have arisen, hæmoptysis is a marked and oft-recurring symptom. For clearness sake it will, I think, be better to restrict the term to the first set of cases to which it was originally applied—those of hæmorrhagic origin; and to refer to the second class later as cases of phthisis with recurrent hæmoptysis.

The question as to the *frequency* with which phthisis arises as the direct result of hæmoptysis is one of great difficulty to determine, and must, I think, ever remain one of opinion. Of the possibility of blood having obtained entry to the air-cells and coagulating there, giving rise to broncho-pneumonia, and subsequently to phthisis, the observations of Professor

(a) "Phthisis after Bronchial Hæmorrhage" (Niemeyer, Bürger, 1864), "Phthisis Hémoptoïque" (Herard and Cornil, 1867), "Hæmorrhagic Phthisis" (Dr. Williams, 1868), "Tuberculose nach Hæmoptoë" (Waldenburg, 1869), "Hæmoptysical Variety" (Dr. Peacock, 1870). These several authors, though doubtless they would agree in acknowledging certain typical cases as representative of this hæmorrhagic form of consumption, would differ widely in the liberality with which they would group more doubtful cases among such representative ones, nor would they more closely agree as to the pathology of the affection. The observation of this difference of opinion among observers so eminent, is alone, I hope, sufficient to make me fully aware of the difficulties of the subject.

Niemeyer, and Drs. Hermann Weber, Baümler, and others have furnished us with clear evidence. I have myself seen on several occasions post-mortem examples of inhaled blood forming the nucleus of fresh lobular pneumonia in the grey stage in cases—it is true, of tolerably advanced phthisis—in which death ensued after recent hæmoptysis. The difficulty, of course, lies in determining whether the hæmorrhage is the cause of the disease or is itself the result and evidence of pre-existing or coincident disease. It is an undisputed fact that in a certain number of cases, more or less copious hæmoptysis is the very first symptom of the pulmonary disease, preceding, even for a considerable time, all reliable physical signs. Professor Niemeyer asserts that the hæmorrhage in these cases—as in the majority of cases of phthisis in all its stages—proceeds from the bronchial mucous membrane; that a portion of the blood becomes inhaled into the air-cells of the previously healthy lung, coagulates there, giving rise to irritative lobular pneumonia, the consolidations of which may subsequently decay and soften, leading to destruction of the lung, or may become cheesy, and give rise at some subsequent period to tuberculosis of the lung of a secondary or infective kind.(b) I must confess that I have never met with a case which I could distinctly refer to this category, nor are the cases which Niemeyer quotes in support of his view to my mind conclusive.(c)

I think the phenomena exemplified in the following case may be fairly regarded as illustrative of the hæmorrhagic variety of consumption, while they also point to the hæmorrhage being of pulmonary, not bronchial origin.

J. P., aged 20, a servant residing at Faringdon, came to see me at the Brompton Hospital on September 21 last. She was a fine, well-developed woman, with a decided tendency to *embonpoint*, a clear complexion, a high colour, in which, however, a slight degree of lividity was noticeable. She was complaining of shortness of breath and bad cough with expectoration, and had the following history:—Of healthy parentage, and with no hereditary tendency to consumption;(d) she had enjoyed good health—with the exception of the formation of an abscess at the top of the sternum, which discharged eight years ago, leaving a depressed scar—until twelve months ago, when she began to suffer from palpitation on exertion; she did not consider that she had been ill, however, for more than six months, with increasing breathlessness and palpitation and slight dry cough. Three months ago she had an attack of tolerably copious hæmoptysis, which lasted nine days, and kept her in bed three weeks; five weeks ago she had a repetition of the hæmoptysis to a less degree. She had not menstruated for four months, having previously done so with regularity; but though the catamenia ceased about a month previous to the first attack of hæmoptysis, she did not herself connect the two facts together; they had again appeared a day or two ago. She had never suffered from epistaxis. She now complained of shortness of breath, troublesome cough with expectoration, which, however, was not tinged with blood. She had got thinner of late, and the pulse was rather accelerated and small. There was at this date no alteration in the shape of the chest, which was remarkably good, nor any decided dulness; but on the right side there was diffused crepitation throughout, mingled with vesicular harsh breath-sound. On the left side the respiratory murmur was exaggerated. The case was regarded as one of irritative catarrhal pneumonia of the right lung, secondary to copious hæmorrhage (probably vicarious) from the apex of that lung. At this time there was no evidence of positive destruction of lung, and I strongly advised her to seek the shelter of the Hospital as an in-patient, with the hope that she might make a complete recovery. She has only been able to do so quite recently, however, after having had a slight return of the hæmoptysis at the end of October.

November 17.—Having been in the Hospital for a few days, under the care of Dr. C. T. Williams, I again examined her. There was slight but decided dulness on percussion at the right supra- and infra-clavicular region, fading both downwards and laterally towards the median line into good resonance; above the clavicle the resistance to percussion was greater than on the opposite side; at the extreme posterior base there was almost complete dulness for three fingers' breadth, not so anteriorly or in the axillary region. Heart's apex-beat in normal situation. The respiratory murmur at the apex was entirely masked by coarse moist crepitation accompanying both inspiration and expiration; vocal resonance increased, however, in supra-spinous fossa. Below the apex respiratory murmur feeble; crepitation to base, but less abundant than above; at posterior base absence of respiration over the dull portion, with some incomplete ægophony. On the right side respiration loudly puerile, well audible to mid-sternal line. The complexion was still fresh and highly coloured, without, however, any lividity. Cough now only slight; expectoration a tenacious mucus, clear and slightly pigmented. Temperature normal; pulse 104 to 112; weight of patient, nine stone.

I quote this case because I think it is as good an example of hæmorrhagic phthisis, in the sense of phthisis secondary to hæmoptysis, as is ever met with. There are three queries which must, however, be answered respecting it: 1st, Is it a case of phthisis at all? 2nd, Is it a case of phthisis caused by the inhalation of blood effused from the bronchial mucous membrane—phthisis *ab hæmoptoë*, in the sense of Niemeyer and others? or, 3rd, Is it a case of pulmonary hæmorrhage coincident with the occurrence of that active pulmonary congestion which is the very first stage of a certain number of cases of phthisis?

1. Though at present there is no evidence of *wasting* of the lung, yet there is sufficient evidence of irreparable damage to its texture—*i.e.*, there has been slowly diminishing breath-sound, with abundant crepitation, since she first came under observation in September, until, at present, the signs at the right apex seem only compatible with the air-cells there having become completely blocked with their epithelial products, now in the process of degeneration (caseous pneumonia). The significance of such gradually developing apex-signs after hæmoptysis cannot, I think, be mistaken; softening and removal of lung tissue, to a greater or less degree, with indurative shrinking of the lung, are the almost necessary consequences. In all probability, the disease in the lower part of the lung is the direct result of the irritation of the inhaled blood, and much of it may no doubt yet clear up—indeed, had the patient obtained proper shelter and care from the first, it might have done so entirely; but, though all fever is now absent, the physical signs show that much of the lung yet remains clogged with inflammatory products.

2. I think the facts (*a*) of the opposite lung having wholly escaped, and (*b*) of the apex of the right lung being so decidedly affected, are very strong evidence against the possibility of the hæmorrhage having been from the bronchial mucous membrane.

3. The same two facts, and more particularly the gradual increase in the apex-signs, and the concurrence of the *copious* hæmoptysis with the severe lung-symptoms, are equally strongly in favour of the hæmorrhage being truly pulmonary—*i.e.*, of an acute pulmonary congestion—the true first stage of this (pneumonic) form of consumption having been attended with hæmoptysis to an unusual extent, the blood having also gravitated to other parts of the lung, and set up irritative changes there.

No doubt, at first—*i.e.*, soon after the hæmoptysis—the basic were in excess of the apex signs; this is the case in many instances of copious hæmoptysis in the first stage of phthisis. The explanation which appears to me most plausible is, that the natural effect of gravitation, aided by the expansile movements of the lung, is to remove the blood from the air-cells at the apex of the lung,(e) which, therefore, often escape blocking, while they are the very physical conditions which most aid its entry into the lower portions. On the other hand, had the blood welled up from the base of the lung, it is unlikely, for the same reasons, that the opposite lung would have escaped.

It may be said—and here lies the uncertainty of all cases of this kind—that there was some disease existing at the right apex prior to the hæmoptysis. It is true that the patient had some cough, but it was only very slight, unattended with constitutional symptoms of any special kind, and not

(b) Waldenburg, fully admitting this view, seems inclined further to think that the inhaled blood, by the re-entry of its shrivelled elements into the circulation, may give rise directly to true tuberculosis ("Die Tuberculose," p. 496.)

(c) This point is very fully discussed by my colleague, Dr. C. T. Williams, in his chapter on Hæmoptysis in the recent work on "Pulmonary Consumption," by himself and Dr. C. J. B. Williams.

(d) There is some doubt about one sister who died of bronchitis, after about six weeks' illness, at the age of 4 years.

(e) The blood sometimes coagulates too quickly for this, and then the physical signs vary greatly from day to day, as in an interesting case of Dr. Gee's, of which he has kindly shown me the notes. In this case the signs were *nil* after the first hæmoptysis; immediately after a second attack, however, there were signs at the right apex, which were modified from day to day. The hæmorrhages were frequently repeated here, and the blood expectorated was commonly dark, clotted, having apparently been retained some little time. Some temperature observations are much wanted immediately after the first copious hæmoptysis in cases presumed to be of hæmorrhagic character. Dr. Gee considers it to be elevated from the first.

apparently differing from the short cough so commonly associated with palpitation, of which she also complained.

We may say, at least, that the *onset* of the disease was *with copious hæmoptysis in a person previously with no apparent chest disease*, and, with the exception of some menstrual irregularity and palpitation, so commonly associated with this condition, in fair health; we are further certain that *a considerable amount of the disease present is the result of the hæmoptysis;* and these two facts are sufficient to mark the disease clinically as one of *Hæmorrhagic Phthisis.*

It is obvious that it is impossible to draw the line between those cases in which the acute congestion—whether of vicarious or mechanical(f) source, or originating from a chill or other cause—results in hemorrhage in a lung previously sound, or determines what is often the first sign of consumption—hæmoptysis—from a lung whose vessels are frail from previous error of nutrition or disease at one portion. The distinction is mainly drawn from the clinical history of the case; and there is perhaps no true pathological difference, since we cannot on present evidence admit the hæmorrhage to be bronchial. The chief facts upon which those who attribute early hæmoptysis to hæmorrhage from the bronchial tubes rely, is the extreme difficulty often experienced by the ablest auscultators in detecting any physical signs (but those, perhaps, of bronchial irritation) a short time after even very copious hæmoptysis. A man comes for examination a day or two after bringing up a large quantity of blood, and absolutely no signs which one could definitely pronounce as indicative of the origin of the hæmoptysis are discoverable. This very commonly happens. There may be the slightest comparative harshness and feebleness of respiration at the summit of one lung, from which long experience of the subsequent phenomena leads one to judge that the hæmorrhage has arisen there, but which without such experience would be considered wholly inadequate to account for the astonishing hæmorrhage. I have already pointed out above that the readiness of escape permitted to the blood from the apex by the aid of gravitation and expansile motion of the air-cells appears to me to be the explanation of this difficulty. It is the too common experience of the subsequent development of physical signs indicative of decided disease, at the point which we could only guess to be the source of hæmorrhage before, which enables us in such cases to speak decidedly upon what would otherwise be insufficient evidence.

It will be observed that the *hæmorrhagic diathesis* has not been spoken of in connexion with hæmorrhagic phthisis. I believe, indeed, that the two diseases have no causative relation to one another. Cases are common enough in which there is a tendency to slight hæmorrhage from the gums, slight hæmoptysis apparently from the mucous membrane of the large bronchi or the throat, often associated with menorrhagia. I have watched many such cases for a long time, but none of them have ever become phthisical, or suffered from very copious hæmoptysis. Cases of true hæmorrhagic diathesis are of course rare, and I am therefore glad to have the opinion of my friend Dr. Legg, who has paid much attention to *hæmophilia* and its literature, and who finds the subjects of this disease are rarely themselves affected with phthisis, and that copious hæmorrhage from the lungs is almost unknown among them.

Perhaps the chief advantage in retaining the term "hæmorrhagic phthisis" lies in its directing attention forcibly to the fact that hæmoptysis must not be looked upon only as the symptom or sign of disease, but as being also the *potential cause* of fresh disease. This consideration has a very important bearing upon the treatment of hæmoptysis.

We know that this early hæmoptysis is rarely, if ever, fatal, and therefore, after calming the patient and securing for him perfect repose, we may anticipate spontaneous arrest of the hæmorrhage, or may endeavour to stop it by appropriate drugs and other means. Our whole anxiety is, however, in the immediate future, to watch for, and, if possible, to avert, the secondary consequences of the bleeding. Any detailed physical examination of the chest is, while the hæmorrhage continues, to be carefully avoided. The thermometer, happily without danger to the patient, gives us the information we most require, and, together with the pulse and general aspect of the patient, is the best guide in the management of the case. If the temperature is raised at the time, or within a few hours of the hæmoptysis (it is often depressed for a few hours by hæmorrhage from the lungs), we may conclude hæmoptysis to be of congestive or inflammatory origin, and we anxiously watch for a few days to see whether the fever subsides with the hæmoptysis, or whether a fresh accession takes place significant of those secondary inflammatory changes we have reason to dread.

The patient is usually seen after the first burst of hæmorrhage; and if the bleeding continue after quiet is secured, astringents may be found useful. I believe gallic acid to be the best of them, but it must be given in large doses of gr. xx. or ʒss. Unless, however, active bleeding is going on, I am content in cases of hæmoptysis to give nitro-muriatic acid and ipecacuanha, the acid serving, I fancy, to give tone to the relaxed vessels which have yielded the blood. The subsequent treatment of these cases requires the greatest care, and may be rewarded with brilliant results; for they are cases in which the disease is often in the smallest sense constitutional, and therefore in which recovery is always to be hoped for, while in no kind of condition is neglect attended with more unfortunate results than in hæmoptysis. I shall have a few more special remarks to make on the treatment of hæmoptysis in connexion with the subject of Recurrent Hæmoptysis.(g)

The prophylactic treatment is of much importance when we have any suspicion of a tendency to pulmonary hyperæmia, especially in young girls before menstruation is thoroughly established, or if it be irregular. Violent exercise of any kind should be strictly forbidden, the underclothing should be of flannel throughout, and the air of the bedroom should be warmed.

(To be continued.)

(f) The term mechanical source is meant to include those cases in which the excited action of the heart and pulmonary engorgement connected with violent muscular exertion—excessive dancing, rowing, etc.—lead to hæmoptysis. I do not know of any well-authenticated case of the kind. In Dr. Weber's first case (Clin. *Trans.*, vol. ii., p. 143), dancing evidently caused a recurrence of the hæmoptysis.

(g) Drs. Baümler's and Weber's cases, recorded in the Clinical *Transactions*, vol. ii., in which, however, they take a different view as to the source of the hæmorrhage, are most instructive in pointing out the value of the thermometer as a guide in the management of cases of hæmoptysis.

REPORTS OF HOSPITAL PRACTICE

IN

MEDICINE AND SURGERY.

KING'S COLLEGE HOSPITAL.

CASES UNDER THE CARE OF PROFESSOR WOOD.

In operating for the excision of the wrist-joint, Mr. Wood now generally adopts the method employed in this instance. The lines of incision are the same as those advocated in what is known as Lister's operation, the advantages of which are, that the extensor tendons of the thumb and fingers—so liable to be injured by the other modes of excising the wrist—are not at all implicated. The only tendons which run the risk of being divided are the extensors of the carpus, and the division of these is of less importance, owing to the firm fibrous anchylosis of the wrist which results from a successful operation.

The method adopted by Mr. Wood does not, however, correspond in detail to Mr. Lister's. Mr. Wood does not think it necessary so far to detach the soft parts as to allow the ends of the bones to be turned out through the wound. By feeling for the diseased structures with the forefinger of the left hand passed through one of the incisions, the cutting pliers and gouge can be substituted for the saw, and the sense of touch for that of sight; and by these means all the diseased parts can be removed without causing that extreme interference with surrounding parts which is otherwise necessary. The last four or five cases of wrist-excision operated on by Mr. Wood have been done in this way, and with good results.

Mr. Wood did not remove the trapezium, nor interfere with the radio-ulnar joint, as these were not involved in the disease. He pointed out the advantages, so far as the movements of the thumb are concerned, of leaving the trapezium.

(For notes of these cases we are indebted to Mr. Cross, House-Surgeon to the Hospital.)

Case 1.—*Caries of Wrist-joint, commencing probably in Disease of the Synovial Membrane—Partial Excision of Joint.*

Henry P., aged 40, admitted September 25. Mother and brother died of phthisis. Patient (a hatter) has not suffered from any symptoms of this disease. Eighteen months ago he struck the back of the knuckle of the third finger of his right hand. Some swelling, which soon subsided, occurred at the back of his hand. Two months afterwards the front of the wrist-joint on the ulnar side swelled considerably. Rest, iodine

paint, and bandaging reduced this. He returned to his work, though he still suffered pain, and he could not grasp his iron, as the three inner fingers were weak and flexed, and the whole region supplied by the ulnar nerve painful. Six months since the swelling occurred on the back of the wrist as well as on the front, and pain increased, especially at night. For a fortnight before he come into Hospital he had done no work. When admitted his right wrist was about half an inch larger in circumference than the left; it was puffy and elastic to the touch, but not fluctuating. Three fingers were semi-flexed. There was great pain along the course of the ulnar nerve. He had no cough, but stated that he had been losing flesh. A splint was applied to the front of the wrist and arm. The swelling subsided on the front of the joint, but increased at the back.

One month ago Mr. Wood made an incision into the wrist on the posterior surface, letting out some thick pus. The probe led down to a gelatinous kind of tissue, but no bare bone could be felt. The wound was syringed out, and lint soaked in carbolic oil used to keep it open.

On November 18 Mr. Wood excised the joint, gouging away the diseased structures through an opening on the ulnar side. The original incision at the radial side of extensor digitorum was lengthened, so as to allow one finger to be retained in the joint during the operation and to act as a counter-opening for dressings afterwards. A quantity of brownish-yellow gelatinous material and several pieces of carious bone were removed. A piece of lint, soaked in carbolic oil, was passed through the double opening into the joint. The forearm and hand were then placed upon a padded straight splint, covered with oil-silk, and a somewhat wedge-shaped small pad was placed beneath the palm of the hand, so as to keep the fingers in a position between flexion and extension. The whole was then retained in position by strips of adhesive plaster and a bandage, and directions given that the joint was to be "flushed" out every day with carbolic acid lotion.

Case 2.—*Epithelioma of Tongue—Removal with the Scissors.*

Thomas M., aged 54, admitted into King's College Hospital, under the care of Mr. Wood, October 20. An old soldier. Has been married. No history of syphilis, nor any sign of it on the patient. No history of cancer in his family. Five weeks before admission he noticed that his tongue was sore, and that there was "a kind of blister" on its left edge towards the under-surface. It merely caused a little uneasiness when he took food; but for a fortnight before admission into the Hospital it had pained him, especially at night. He is a smoker, but holds his pipe on the opposite side to that attacked by the swelling. When admitted he was noticed to have a cachectic, sallow look. There had been profuse salivation of late. There were to the under side of tongue, opposite the front molar tooth, two small ulcers of a quarter of an inch in diameter, with very hard bases, and covered with a dirty secretion. There was no enlargement or induration of any of the glands. The local application of caustic chloride of zinc and the anti-syphilitic treatment were continued till November 18, when, as the affected part increased in size, and no marked benefit ensued, Mr. Wood took out a block of the tongue by the scissors, douching it well with a solution of xl. grs. ad ʒj. of chloride of zinc and perchloride of iron.

Remarks.—At the time of the operation, this affection of the tongue had not the common appearances either of epithelioma or of syphilis. There was a small raised hard swelling, the size of a pea, with a whitish surface superficially ulcerated in one spot, and a hard base; behind the swelling were two small irregularly shaped surface-ulcerations. The man had been treated for syphilis, but without checking the increase of the disease, and Mr. Wood decided on removing it, because, as he said, if it were not epitheliomatous at the time, it would have a great tendency to become so in a man of his age. We were allowed to take a portion of the removed tissue for microscopic examination, and found in it well-marked evidences of epithelioma—viz., groups or nests of epithelial cells, as well as cells spreading into the muscular tissue.

Case 3.—*Third Operation for the Radical Cure of Hernia in the same Patient.*

Frederick H., aged 27. In January, 1869, Mr. Wood operated on this patient (apparently successfully) for the radical cure of a large scrotal hernia of the left side. At the end of February, 1870, he had jungle fever in India, followed by a sunstroke and severe vomiting, which brought down a rupture on the same (left) side as large as a plum. He continued to wear a truss until November 17, 1870, when another operation was performed by Mr. Wood, the patient having returned to England for that purpose. At this operation there was great difficulty in pushing the needle through the thickened cicatricial tissue. Wires were removed on December 9, and when discharged convalescent he was ordered to wear a truss for a while.

On returning to India he left off his truss earlier than he should have done, but no ill-consequence resulted till he had a severe fall from a horse, which brought down the rupture again.

On admission, on November 16, the intestine was seen to come chiefly through an opening opposite the internal ring, apparently the upper part of the external ring, the lower part being very thick and strong. Only a small quantity of intestine then protruded.

On November 18, 1871, another (the third) operation was performed, when the inner and outer portions of the ring through which the hernia descended were brought together, and the sac invaginated in the usual way.

GUY'S HOSPITAL.

REMOVAL OF RIGHT BREAST FOR CANCER—RETRACTION OF NIPPLE OF LEFT BREAST.

(Under the care of Mr. POLAND.)

ELIZABETH B., aged 46, had suffered at different times from strumous ulceration about the right arm, the cicatrices resulting being distinctly marked. There is no history of tumours of any kind in members of her family. About Christmas last the patient noticed a small hard swelling in her right breast, which gave her no great amount of pain, but became tender about three months ago, and has been gradually increasing, especially during the last month. The gland tissue of each breast is wasted, and each nipple is drawn in in a transverse linear manner. The tumour is of stony hardness, and after removal measured two inches by one inch in diameter. It was situated beneath the nipple; was movable upon subjacent tissues, but adherent to the skin and nipple. The glands in the axilla were not enlarged, and there was no thickening about the clavicle. Mr. Poland removed the whole breast, and drew attention to the fact that though retraction of the nipple was regarded as a pretty constant sign of malignant tumours of the breast, it must not be regarded as infallible, as here was a case in which the nipple of each breast was retracted, and in much the same manner, although in the left breast there was no disease existing.

PERIOSTEAL NECROSIS EXTENDING ALONG THE SHAFT OF THE TIBIA TO THE KNEE-JOINT—AMPUTATION THROUGH THE LOWER THIRD OF THE THIGH.

(Under the care of Mr. BRYANT.)

This patient, a child of 7 years of age, was admitted under Mr. Bryant on September 29 last, having received a blow on the leg from a stone one week previously. On admission, there was swelling and redness of the leg, with tenderness, as high as the middle of the thigh; acute suppuration soon followed, and the leg was evidently doomed. Owing to the refusal of the parents to permit an operation, the life of the child had been jeopardised. The whole of the shaft was diseased, and there were several sinuses around the knee-joint, leading to the conclusion that the disease had extended into the joint. The general state of the child was most precarious, and numerous large bedsores existed over the sacrum and trochanters.

Mr. Bryant, believing in the immense reparative power of children after any source of wasting discharge is removed, had fair hopes of the recovery of the child in spite of her unsatisfactory general condition; and he strongly impressed upon the students the importance, where there is no visceral disease present, of always giving a patient the chance of recovery by amputation, even in such or even more extreme cases than the one before him. He referred to a case he had seen under Mr. Key, in an otherwise healthy man, the subject of a compound comminuted fracture, who was rapidly sinking from profuse acute suppuration. The propriety of the operation having been discussed, amputation was performed on this patient, but without moving him from the bed, and the tibial arteries were tied before the amputation was completed, in order to save every drop of blood.

On examining the limb of this child after its removal, it was found that the periosteum was stripped off the bone in nearly its whole length; it was very soft and pulpy, and the surface of the tibia was necrosed. On opening the knee-joint

the fibro-cartilages were seen to be softened, and in the articular cartilage, on the head of the tibia, was a small circular punched-out-looking opening, through which red carious bone could be felt. On a vertical section through the thickness of the bone the medullary substance was also found diseased, and this extended upwards through the epiphysial cartilage to the knee-joint, so as to present the appearance described. No ligature was used at the operation, as the femoral artery was twisted by the torsion-forceps.

The following case—which is at the present time under Mr. Bryant—though similar in some respects, presented a contrast to the other. For notes of it we are indebted to Mr. R. S. Mutch :—

PERIOSTEAL ABSCESS OF FEMUR.

(Under the care of Mr. BRYANT.)

Ann W., aged 38, married, admitted October 25, 1871; no family; regular. Three weeks ago felt pain in inner side of right thigh, followed in a week by swelling, so as to render her unable to walk. No cause could be assigned—no injury or cold. Had no advice, but of her own accord applied poultices and took opening medicine.

On admission the whole of the middle two-thirds of right thigh is uniformly swollen and very tender; skin red; fluctuation doubtful. Ordered quinine, and poultice applied.

October 28.—Chloroform. Mr. Bryant considered deep-seated suppuration evident. An incision about three inches long was made on the antero-external aspect of the thigh, at the junction of the upper and middle third. About a pint and a half of pus and blood escaped. On inserting the finger, the upper half of femur was found exposed. A sponge was placed in the wound, and the thigh was bandaged.

30th.—Leg much easier, only smarting pain. Sponge removed. Discharge slight, but offensive. Oiled lint inserted between edges of wound, and thigh bandaged.

31st.—Temperature 99·2°.

November 9.—Has been doing well. Wound dressed the same. Discharge profuse, and still offensive.

10th.—Wound thoroughly washed out with water by means of an elastic catheter inserted.

16th.—The same treatment, and the patient is now considered convalescent. Temperature 99°.

THE LONDON HOSPITAL.

GANGRENE OF TIP OF NOSE AND PART OF EAR —IRIDOPLEGIA, ETC.

(Under the care of Mr. HUTCHINSON.)

THERE was in the London Hospital a few months ago a curious case (sent by Dr. Lomas to Mr. Hutchinson) of circumscribed gangrene of skin, associated with peculiar symptoms. The patient was an Irishwoman, aged 30. She stated that throughout last winter she had frequently suffered from fits of shivering. These attacks always came on after some exposure to cold, and from her account it seemed that they were often accompanied or followed by sufficient general *malaise* to prevent her from doing her work for periods of two or three days. She asserted, but only when the question was put directly, that her urine had often been very dark, and that it had varied considerably in colour at different times.

One cold day, when she had been out of doors (in February), she found, on returning home, that her nose and left ear were quite dark ("black," she said), and very cold. Soon afterwards a black spot appeared on the tip of the nose and the most exposed part of the helix of the affected ear. These two black spots remained, and on admission they were found to consist of small patches of dry gangrenous skin, about the size of horsebeans. The surrounding duskiness went off a few days after its first appearance, but it had since many times returned, and always in connexion with a rigor from exposure to cold. Whilst in the Hospital she had often slight shiverings, with intense icy coldness and purple congestion of the parts immediately around the gangrenous spots. She always referred these cold fits to some exposure. Thus, she very often had them in the morning, when the ward window had been open, and the congestion and coldness of the skin of the nose and ear disappeared when she again felt warm. Her urine was often looked at, but was never seen to contain blood or blood-colouring matter. Her temperature was usually below normal at the time she felt cold—her morning temperature being frequently 96° or 97° F.; in the evening, on one or two occasions, it rose to 101° and 103° F. Her pupils were noticed to be rather large. On examination, they were found unequal (the left being the larger), and quite motionless. Neither exposure to light nor the efforts of accommodation produced any movement. Her vision for near and far objects was good. Calabar bean quickly produced marked contraction of the pupils.

Mr. Hutchinson remarked on the predisposition to gangrene of the most exposed parts, brought about in this patient by her want of power to resist a low temperature, a slight degree of cold producing an effect in her which would have required a more prolonged exposure to greater cold in persons less susceptible to changes of temperature. Although positive evidence of the passage of blood-colouring matter by the kidneys was wanting, yet Mr. Hutchinson inclined to regard the morbid state as allied in its nature to intermittent hæmatinuria, a disease in which, as is well known, exposure to trifling cold often suffices to induce a rigor and the passage of dark urine. There did not appear to be any reason for supposing her under the influence of malaria, and her attacks were not periodic. The partial dilatation and absolute fixedness of the pupils was a very singular point in the case. Attention was drawn by Mr. Hutchinson to the importance of testing the movement of the pupil in association with accommodation; he pointed out that in some cases the iris will act in conjunction with the ciliary muscle, although the stimulus of light alone is quite unable to produce any alteration in the size of the pupil. In this instance, however, neither light nor the act of accommodation had the slightest effect. Probably this condition of iridoplegia was in some connexion with disease of the vaso-motor system, and thus due to the same cause as the remarkable tendency to shiver when exposed to slight cold. The phenomena of a rigor are, no doubt, due to arterial (or vaso-motor) spasm.

The subject of our case remained in the Hospital some weeks, and, under tonic treatment and liberal diet, her health, which had been very feeble, much improved; the little sloughs separated, and the sores healed. At the date of her discharge she had, however, by no means lost her peculiar susceptibility to slight changes of temperature.

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Medical Times and Gazette.

SATURDAY, DECEMBER 2, 1871.

H.R.H. THE PRINCE OF WALES.

THE Prince's illness seems to date from the visit which he paid to Lord Londesborough at his villa, near Scarborough. He went there on October 30, and remained till November 4. Lord Londesborough's house is not large enough to receive all the guests who were invited to meet his Royal Highness; many of these, therefore, were "put up" in rooms secured for the purpose in the neighbourhood. Of the party who slept at Lord Londesborough's house, it is said that five have been more or less ill, with symptoms indicating some form of blood-poisoning; and that not one of the guests who slept out was so affected. Of these five patients, one noble personage is said to have suffered severely from intestinal irritation, but soon got well. Four others were affected with symptoms of typhoid. Lord

Londesborough himself is said to have been one of the first, and to have been just able to accompany the Prince to the station on the 4th, then to have gone home to bed. Lord Chesterfield and Colonel Tyrwhit, two others of the guests, are said to be still extremely ill. The Prince returned to Marlborough House on the 4th; celebrated his birthday at Sandringham on the 9th; then visited Lord Carrington. On his return to Sandringham, he is known to have expressed himself as feeling extremely out of spirits, as though he had a severe chill, which he could not shake off; yet he went out shooting as usual, and attempted to throw off his illness by means of hot baths. One source of uncertainty in typhoid fever is, that it is extremely difficult to fix the exact time of its commencement, for it may creep on insidiously, under the guise of "feverish cold," for many days before its real character is recognised. Equally uncertain is the time when it ceases—it may be seven, fourteen, twenty-one, twenty-eight, thirty-five, or forty-two days. The symptoms that have been reported to us, from the observation of those about the illustrious patient, are not unfavourable—the pulse never over 92, and some refreshing sleep—yet it is useless to deny the peril of the uncertain period that is yet to be gone through. Lord Londesborough, in to-day's *Times*, gives reasons for disbelieving that the Prince's visit to Scarborough had any connexion with his illness; but, unfortunately, we know that the floods of contaminated water which escape from house-drains are apt often to find their way where they are least expected. We should like to hear of such an examination as Dr. Ballard instituted at Islington, in the case of the fever caused by milk watered with contaminated water.

*** Since writing the above, we have received the following from a Special Correspondent:—The etiology of the typhoid fever in the Prince's case is yet obscure. It was imagined that his Royal Highness might have contracted the disease when visiting near Scarborough; but this is doubtful. Since his Royal Highness fell ill, one of the grooms at the Sandringham stables, who did not attend his Royal Highness to Scarborough, has sickened with the same fever; and it is notorious that at this particular time typhoid is prevailing in many parts of England. Of course, there will be no delay in instituting the fullest investigation as to every possible source of the contagium. The early symptoms of indisposition were, in his Royal Highness's case, accompanied with slight suppurative inflammation at the base of the finger-nail (whitlow). The connexion of this with the incubation of typhoid may be only accidental, but should be noted. It was early suspected by Mr. Clayton and Dr. Lowe that there was more in the feverish symptoms than could be accounted for by the whitlow. On Monday, November 13, his Royal Highness was chilly after a day's shooting; he had not, indeed, felt well on leaving home in the morning, but there was nothing noticeable to create the suspicion of typhoid fever for four days subsequently. Then it was that headache became a prominent symptom, with the other attendant prodromata of typhoid. Up to the present time we believe the course of the illness has been characteristic of a rather severe attack of typhoid fever. When the public journals write about there being this or that symptom present or absent, the Profession know, of course, that such statements are worthless, and, further, that it is absurd to talk about critical days, since the malady must run a definite course, which, we are glad to learn, up to this time it does favourably, and without complication.

THE MEDICAL SUPERVISION OF ASYLUMS.

On Saturday last the fortnightly meeting of the Metropolitan Asylums' Managers was held, and, among other subjects of importance, the very important one of the Medical Supervision of Asylums was discussed at some length, or, more correctly speaking, an opportunity was given to Mr. Wyatt and some other members of the Board to state very positively their opinions on the Medical supervision of asylums. Mr. Shaw Stewart brought forward the adjourned portion of the Report of the Stockwell Asylum's Committee—the portion, namely, relating to the subject of appointing a Medical Superintendent in the place of Dr. Barbour, who had resigned in consequence of ill-health. They had reconsidered, "by the light of the experience they had gained in the working of the present system, the question of placing the Medical supervision and responsibility of the Hospitals in the hands of Visiting Physicians, rather than in the hands of Resident Medical Superintendents"; and after full consideration of the subject, "were not prepared to recommend any alteration in the present system." Mr. Shaw Stewart having moved that the Managers concur in the Report of the Committee, Dr. Stallard moved, as an amendment—"That it is desirable that the staffs of the small-pox and fever Hospitals shall consist of one or more Visiting Physicians, who shall be Members of the Royal College of Physicians of London, and of a Resident Medical Officer"; and that a Committee should report on the respective duties and salaries of these officers. He showed how well this system worked in the general Hospitals, and pointed out the many and great advantages which would follow the application of similar principles of management to the Board Hospitals; and he enforced his arguments by a reference to what is generally known as the "Hampstead Hospital scandal."

The Board, however, seemed so perfectly satisfied with all that has occurred, that Dr. Stallard's amendment would have fallen to the ground, from want of a seconder, had not Mr. Galsworthy said that, "though he did not altogether like the amendment," he would second it, "in order to have the discussion raised, and to take the opinions of Mr. Wyatt and Mr. Charrington, the Chairmen of the Hampstead and Homerton Committees"; and observed that if the motion were carried as it stood, the Managers would be committed never to try Visiting Physicians, which he really seemed to think objectionable.

Mr. Wyatt was altogether opposed to Dr. Stallard's views. He held that the Hospitals under the Board stood in a far different position to general Hospitals, and observed that "the Board could not expect eminent Physicians would, at the loss of their practice, undertake the visiting of Hospitals containing so many dangerous contagious diseases." The Medical Superintendents could, as matters stood, call in other advice if they found any occasion for it. And, moreover, "the proposed plan would lead to the payment of unnecessary and extravagant salaries." And Mr. Wyatt "regarded the remarks on Hampstead as exceedingly ill-timed." Mr. Charrington also was opposed to Dr. Stallard's amendment, and said that "the Committee of Homerton were inclined to leave well alone; for, after their experience of the present system, they did not wish to introduce any other."

Now, after Mr. Wyatt's evidence in the Hampstead Hospital inquiry, one cannot be surprised, we suppose, that he is quite satisfied with the working of the present system; but we greatly doubt whether outside the Asylums Board he will find many, who know anything at all about Hospital management, to agree with him. The Board Hospitals are large Hospitals for the treatment of acute disease, and it is difficult to imagine why they should not be managed on something the same principles as have for so long been found to work well in our general Hospitals—that is, there should be two, three, or, if necessary, more, Resident Medical Officers, like the House-Physicians of a general Hospital, with fair salaries, and a staff of Visiting Physicians, one at least of whom should visit the patients daily, and be responsible for their treatment. "Eminent Physicians" would not be required, nor would it be necessary to pay "extravagant salaries." We do not believe for a moment that it would be at all difficult to find, among the young Physicians waiting for Hospital appointments, perfectly fit and

efficient men to undertake the work, and to do it thoroughly well; and it would not require large salaries to tempt them. We have never heard that it has ever been difficult to fill up vacancies on the staff of the Islington Fever Hospital; and we are certain that, as Dr. Stallard stated, this plan "would be advantageous to patients, Medical officers, and the Managers alike,"—and, we would add, infinitely more satisfactory to the public. The visiting Physicians under this system would not, and need not, be "eminent Physicians"; they would be men of the same high and large Medical education as the Assistant-Physicians to our general Hospitals, and, as at those Hospitals, they would command the confidence of the public and the Profession. Moreover, under such a system of Medical management, it might be confidently expected that the experience and practice of the Board Hospitals would be made to add largely, and on most important subjects, to the science and art of Medicine—a secondary consideration, perhaps, yet nevertheless one the importance of which cannot easily be exaggerated, though it has been too little thought of, notwithstanding it was, we believe, plainly contemplated by the promoters of the Act by which these Hospitals are established. We need not point out how the knowledge and experience gained at the old fever and small-pox Hospitals have been made, by the able Physicians who have been on their staffs, to benefit mankind at large; and the public and the Profession have a right to look for similar gains from these new Hospitals. But this result would, we venture to assert, be infinitely more likely to be gained under the system we advocate than under the present one.

As to the observation that Dr. Stallard's remarks on the Hampstead Hospital were "exceedingly ill-timed," it seems almost an impertinence. We do not understand that Dr. Stallard in any way anticipated the judgment of the Local Government Board on the matters which were the subject of inquiry, but that he pointed to the evident want of discipline and efficient Medical supervision there as a strong proof of the need of such a change of system as he proposed; and as the question before the Board was whether the same system exactly should be adopted at Stockwell, it is difficult to conceive how it could be "ill-timed" to make use of the experience already gained of the working of that system—unless, indeed, its advocates felt that that experience was strongly against them.

Mr. Wyatt seems keenly alive to the £ s. d. side of the question. We should like to know how he and other Managers would look at requests by their Medical Superintendents for "other advice." We suspect that, to take such a step, unusually great moral courage would be needed, especially if the Medical Superintendent were mindful of the fate of Oliver Twist when he "asked for more."

The result of the discussion was, that Dr. Stallard, finding himself without support, withdrew his amendment, and the original motion was agreed to.

We hold that this is greatly to be regretted, and the more so because small-pox is again becoming much more prevalent. The Committee of the Hampstead Hospital "drew attention to the fact that the numbers during the last two periods of a fortnight showed a great increase over any other like period since August." At the Homerton Small-pox Hospital also, the number of admissions had increased during the last fortnight, and "the number of deaths had likewise unfortunately been greater." The class of cases admitted had been worse than any that had been received since the opening of the Hospital. Any serious increase of small-pox or fever will be a serious strain on the present system of Medical arrangements at these Hospitals, and it will be fortunate if there is no recurrence of complaints like those made against the Hampstead Hospital. We are quite ready to "leave well alone," but, *pace* Mr. Charrington, the question is, Is it well? and our answer is in the negative.

CHOLERA IN SOUTHERN INDIA IN 1870.

Mr. Cornish, Sanitary Commissioner for Madras, in his recently published "Record of the Progress of Cholera in Southern India in 1870," before considering the phenomena of later epidemics, critically re-examines some of the older data available in regard to the prevalence of the disease in earlier times. This he considers it necessary to do, in consequence of Dr. Bryden having lately given in his adhesion to the doctrine that cholera-movement is due in the main to meteorological influences, and that human intercourse plays but a very secondary part in the distribution of the pestilence. While such views are declared to be formed on the basis of statistical data by one of the most painstaking and intelligent investigators of modern times, and while directly contrary theories, the result of experience and induction, are held by the great bulk of the Profession, both in and out of India, he feels called upon to proceed with caution, and to weigh carefully every real or assumed fact before drawing inferences therefrom. He therefore reproduces in full the report of the epidemic of cholera in the Madras Presidency in 1818, compiled by Mr. W. Scott, Secretary to the Medical Board—first published in 1822, but now long out of print. This report he considers to be all the more valuable at the present time, because it was compiled, not to illustrate any "theory" of invasion, but to record in a connected form the testimony of the officers of the Medical Department who had personally witnessed the outbreak of this, the first epidemic invasion of modern times. The history of the epidemic advance of cholera in 1818, as detailed in Scott's narrative, is, he states, in point of fact the history for all time of the mode in which the Peninsula and Southern India are invaded. There are, of course, minor differences as to the rapidity of movement of, and the extent of country covered by, cholera, but the main facts are unalterable.

The great body of cholera which invades Southern India, leaves its natural home in Lower Bengal by what Bryden calls "the southern epidemic highway," across the central provinces, and southward through the Deccan and Bombay towards the Madras Presidency. In all true epidemic invasions, from 1818 to 1870, it has been carried on to Ceylon. In this southern progress two years may elapse, as in the latest invasion, or the whole journey from Bengal to Ceylon may be completed in six or seven months, as in 1818. It is certainly a remarkable fact that, notwithstanding the facilities of communication introduced during the last half-century, the cholera of 1868 should not have reached Ceylon till 1870. By this, Mr. Cornish thinks, it is indicated that in the movement of cholera from its endemic home there are other agents than human intercourse at work, and that cholera moves in accordance with laws similar to those of small-pox, and possibly of some other epidemic diseases. It finds the fittest conditions for its growth among populations which have not recently been subjected to its ravages; it is affected more or less by peculiar meteorological or climatic conditions. Like small-pox, also, after a season of wide-spread and unusual devastation it dies away completely, and is not renewed until the occurrence of a further invasion from without. The contagious particles of small-pox at the acme of an epidemic must be infinitely more numerous than at the beginning; and why should that disease ever decline, if capable of unlimited propagation? To this Mr. Cornish replies that, as in cholera diffusion, there is a limit to epidemic distribution, and that this limit is reached just as the contagium exists in the greatest abundance, and that, by a law peculiar to each, the contagium of probably all diseases of the infectious type ceases to multiply beyond a certain number of years. Judging from its fatality, the maximum power of cholera is not attained in the first year of invasion, either in India or Europe. Thus, in Great Britain the mortality was greater in 1833, 1849, 1854, and 1866 than in 1832, 1848, 1853, and 1865, the actual years of invasion. In some of the Madras districts the mortality goes on increasing up to the third year, while in

others the virulence of the epidemic is not prolonged beyond the second year. Curiously enough, in Madras the cycles of increase and decline of cholera and small-pox alternate, as has also been observed by Inspector-General R. Lawson, with reference to cholera and paroxysmal fevers; so that the years 1867 and 1868, which marked the decline of cholera all over Southern India, were noticeable for a great and general augmentation of small-pox. It would be very remarkable if in this country the impending epidemic of cholera—of which we have had such long notice, and the nearer approach of which has within the last week been heralded by the arrival at Newcastle-on-Tyne of a vessel from Russian Finland, having one of its crew actually suffering from Asiatic cholera—should be preceded by the still further decline or complete disappearance of small-pox from amongst us.

Mr. Cornish states very distinctly that, in his opinion, the theory supported by Dr. Bryden, of cholera being an "air-borne" miasm, does not rest on such a basis of fact as to commend itself to the credence of men practically acquainted with the phenomena of Asiatic cholera. It is only necessary, he says, to refer to Scott's narrative to prove, beyond the possibility of a doubt, that cholera did in that period traverse the Peninsula from east to west, and for many hundreds of miles from north to south, during the season of prevalence of the south-west monsoon, or, in other words, that an invading cholera advanced in opposition to a prevailing wind; and, moreover, that the change of monsoon from south-west to north-east did not hurry the advance of the disease over the southern districts. Nor, he says, does the theory of cholera-distribution by monsoon winds in any way account for the circumstance that, simultaneously with the movement of a new epidemic out of Bengal in a north-west or south-west direction, a corresponding movement is going on towards the south and south-east. During the season of their prevalence, atmospheric movements are in one direction, while cholera may be moving in several directions. It follows, therefore, that there is a movement of cholera independent of strength or direction of winds, and that aërial influences cannot be so all-powerful as indicated by Bryden. He does not, however, wish to deny that the *matériel* for cholera-propagation may be conveyed to a distance by the atmosphere; but there has been as yet no relation shown between the velocity of movement of cholera and of monsoon winds. These winds at certain periods of the year travel at the rate of from 200 to 300 miles in twenty-four hours; but he is not aware of a single fact which shows that cholera can advance epidemically at the same rate.

Mr. Cornish frequently makes use of the now familiar expression "cholera-wave"; but to this he attaches a meaning differing considerably from that assigned to it by Dr. Bryden or Inspector-General Lawson. He illustrates his idea of its nature, as a "radiation from a centre," by the commotion produced in water by a stone flung into it. As troubled water is first seen in the neighbourhood of the disturbing cause, so in a cholera epidemic it is the tract immediately outside of the endemic area that is first troubled, whether that tract lie to the south-east, south-west, or north-west. The fact that the sea lies to the south of the endemic area, and a mountain barrier to the north-east, is a sufficient reason for there being no extension of the widening circle in those directions; but wherever there may be population, and an absence of hilly barriers to prevent the circular extension of the cholera-wave, it will continue to spread out until it be lost, in the extreme East of China on one hand, and Africa, Europe, and America to the west. While mountain tracts, either uninhabited or occupied by people holding but little intercourse with the low country, also deserts and seas, interfere with the regular expansion of the circle, the points of protuberance of the advancing wave will be indicated by the valleys of great rivers or tracts of country but little elevated above the sea-level.

While Mr. Cornish admits that—seasonal and other conditions being favourable to the preservation of the vitality of the contagium of cholera—an epidemic wave from Bengal will spread over unoccupied country, he by no means agrees with Dr. Bryden in the cheerless—and, we may add, dangerous—doctrine he has laid down as to the inutility of sanitary precautions in limiting the destructive powers of cholera. This conclusion Mr. Cornish considers to follow logically from the theory of cholera being an "air-borne" miasm. But, he says, when it can be shown that cholera does *not* move against a wind, and that there *is* a direct relation between the movement of wind and the movement of cholera, it will be time enough for sanitarians to fold their hands and admit the inutility of their efforts to mitigate the horrors of a cholera-invasion. Meanwhile, it seems to him that much may be done to abate the evil; and he believes that there is sufficient evidence already accumulated to show that sanitation has diminished mortality from cholera, as from many other diseases. He trusts that the day may not be far distant when a systematic effort to attack and defeat cholera in its endemic home shall be made with every prospect of modifying those periodical invasions of epidemics which now carry terror and dismay and destruction of life over nine-tenths of the habitable globe.

Mr. Cornish is a firm believer in the influence of water-contamination as one of the factors in the extension of cholera, but does not consider it by any means the sole agent.

In our notice of Mr. Cornish's extremely able and valuable Report, we have necessarily left untouched many points of great interest. We have freely used the author's own words, as thereby we give our readers a better opportunity of correctly estimating his views. As a contribution to the history of cholera in India, and as an example of clear inductive reasoning on a question presenting so many difficulties, and beclouded by so many theories, as has been that of the mode of extension of cholera, we can honestly recommend Mr. Cornish's Report to the careful study of all interested in this most important subject.

THE WEEK.

TOPICS OF THE DAY.

THE prophecy of a particular day on which the Prince of Wales's fever might be expected to take a favourable turn, oracularly pronounced last week by a Medical contemporary, and reproduced in the public journals, strikes us as (to say the least) somewhat injudicious, as it is calculated to raise hopes which have little actual foundation. That a certain number of cases of typhoid fever are found to recover from the twenty-first day of the disease, is true, but undoubtedly a large proportion have a longer duration. In a young subject, without any serious complication, improvement may be hoped for at even an earlier period; but it is dangerous to pledge the weight of Medical science, as expounded by one of the reputed organs of the Profession, in favour of a prognosis as to time, which is not supported by the statistics of the disease, and is very likely to prove mistaken.

The opening address, by Dr. William Farr, to the Statistical Society, will be read with interest by many who regard statistics with a natural and just abhorrence. In felicitous terms he described statistics as being the essence of politics without party colouring, and likened the present race of politicians, sagacious though they be, in their neglect and ignorance of statistics, to the skilful Physicians before the discovery of the circulation, owing any success they may have achieved to a gifted empiricism. Dr. Farr is evidently not anxious to hide the failings of either politicians or Physicians—

"As we know that the introduction of philosophy into Medicine has at every step forward been strenuously resisted by leading Practitioners, so we must not expect the acquiescence of all conspicuous politicians in the doctrine that to be a states-

man a man must be a statist and study politics as a profession. At present it is notorious that men without experience, without special knowledge, with interests opposed to the public good, with their time entirely engrossed by business, not only not fit, but unfit in every way, are candidates for places in the Legislature at every election wherever representative government exists. Other things being equal, the success of such men should diminish year by year, and qualification in the legislator should be as rigidly insisted upon as it is now in the lowest office in the public service. In order that such qualification may be gained, politics must be studied and taught as a science by duly appointed professors. The next step would be to institute examinations, and ultimately to grant distinctive degrees, to which every statist, every young politician, would naturally aspire, as they would weigh with enlightened constituencies. Statisticians should, therefore, unite in asking the Universities to accord to the science all the importance it deserves."

It is possible, though not probable, that the development of the Chinese system in this country may culminate in the House of Commons instituting an examination for candidates for the degree of M.P. But Dr. Farr's reform is as yet a long way off.

We learn that the Council of the Royal College of Surgeons are discussing the question of improving the examination for the Dental diploma. It is proposed that the examination shall be made more practical, and shall be carried on partly in writing. Without expressing any opinion on the abstract question of the policy of granting Dental diplomas, we may say that, if the Royal College of Surgeons does institute an examination of the kind, it should be at least a good one. Neither for this diploma nor for the Midwifery licence are the candidates numerous.

The Corporation of London hope to secure Epping Forest for the people, and next session a Bill is to be introduced into Parliament with this end. We trust that the object of the Corporation will be attained, though not by means of an impost upon corn, which has been proposed.

Mr. Thoms, the disbeliever in longevity, has attacked Dr. Massy's account of the centenarian Geeran, which we published last week. Mr. Thoms disbelieves that Geeran was the old man he represented himself to be, and wrote to this effect to the *Times* newspaper. Dr. Massy has answered Mr. Thoms's letter. Neither controversialist, however, adduces much proof of his position. For ourselves, we are convinced that centenarians are not very uncommon, and that there is enough evidence to this effect to satisfy ordinary people. The amount of old disease which Geeran carried about him is undoubtedly a very interesting feature in his case.

Many of our readers are already aware that a committee has been formed for the purpose of placing a window to the memory of Dr. Jenner, the discoverer of vaccination, in the parish church of Berkeley, Gloucestershire, where Jenner lived and died. The church has been lately restored, and it is proposed to fill the east window with painted glass representing Our Lord in various acts of healing. The estimated cost is £500. Mr. Henry Kingscote, of 96, Eaton-place, is the honorary secretary to the committee, which includes Earls Bathurst and Ducie, Lord Fitzhardinge, etc.

A COTTAGE HOSPITAL FOR EALING.

Considering the short time that has elapsed since the first cottage Hospital was established as an experiment, it is wonderful how many similar institutions have been erected. Their great usefulness and small cost recommend them strongly. A large and influential meeting of gentlemen residing at Ealing was held on Friday last, under the presidency of the Right Hon. Spencer Walpole, M.P. A resolution was passed unanimously to erect, at once, a cottage Hospital for that portion of Middlesex.

THE LIBRARY OF THE ROYAL COLLEGE OF PHYSICIANS.

We are glad to announce that the College has now extended to its Licentiates a privilege which was, until very lately, limited to its Fellows and Members—namely, the use of the library and reading-room. With a view to the general comfort of readers, the reading-room has been redecorated, and, for the most part, newly furnished. The daily papers are provided, as also the quarterly, monthly, and other periodicals; besides which, a large number of carefully selected recent works in Medicine, Surgery, Midwifery, and the collateral sciences will be found on the tables for perusal. These volumes are replaced by others every three months, or oftener, as the Library Committee considers desirable. The reading-room is open under the following regulations:—"The reading-room at the College, for the convenience of Fellows, Members, and Licentiates using the library, shall be open daily—Sundays and such other times as the Library Committee shall direct excepted—from one o'clock until four o'clock from October 1 to March 1, and from one o'clock until six o'clock from March 1 to September 1."

MILITARY ETIOLOGY.

We hear from Dublin that the Board of Field Officers, assembled to investigate and report upon the cause of the prevalence of enteric fever among the soldiers confined in the Military Prison at Dublin, has concluded its labours, and sent in its report. So far as we can judge from our correspondent's communication, it is highly probable that, as we anticipated, the gallant officers have completely failed to discover any cause for the appearance of the disease. It could hardly have been expected that they should have done otherwise. An exhaustive inquiry into such a question is an undertaking for which a special and technical education is required. The investigation should embrace not only the personal antecedents for a considerable period of the sufferers from the disease, and all the local conditions to which they had been subjected for some time before its appearance, but also every channel by which the contagium of the disease may have been introduced from without. The water-supply and the state of drainage are, of course, the first and most obvious points to which attention should be directed. But in these, simple as they may seem, a perfunctory and superficial inspection by either military or Medical officers can afford no information whatever. It is now pretty generally known that enteric fever, as demonstrated by Dr. Ballard in our own pages, may be introduced into households in milk. We should like to know whether, in the assembled wisdom of the field officers at Dublin, there was any knowledge of this possibility. We should also like to be informed whether there was any special examination made of the cell or room in which each sufferer from enteric fever had been confined before his discharge from prison to his regiment as fit for duty. Two of the men who, we understand, were so discharged—one of them having been a prisoner for at least five months, and the other about three months—were on the next day admitted into their regimental Hospitals with incipient symptoms of enteric fever: one of them at, least, died. Now, we maintain that such an event having once occurred, its repetition under similar circumstances is not only highly probable, but almost inevitable. The contagium of the disease was either of local origin or was introduced from without; and until this question be decided, and the cause, if local, removed, and, if extraneous, obviated for the future, we are of opinion that the military authorities at Dublin can hardly justify themselves to the public in submitting military prisoners to such risks. The military etiologists having failed in their mission, it appears to us that the matter should not be allowed to rest without further and complete investigation, even if it should be necessary to detail a specially trained Medical officer from Netley for the purpose.

THE PLYMPTON BOARD OF GUARDIANS AGAIN.

THE Guardians of the Plympton Union do not appear to be more liberal to those they praise than to those they blame. We lately had to find fault with them for passing a vote of censure on a Medical gentleman, which we considered impertinent and uncalled for. At their last meeting they were discussing the services rendered to the Union by Dr. Ellerley, the Surgeon to the workhouse, in stamping out the attack of small-pox which had lately visited the house. What amount of remuneration were they to make him for attending nine cases of small-pox for nine weeks, at a distance of two miles from the workhouse? Everyone admitted that Dr. Ellerley had been put to much trouble and expense in attending these cases. The Guardians were anything, however, but unanimous as to what amount the honorarium should be. Mr. Pearse thought five guineas as much as the Board would be justified in awarding. The resolution was seconded. Mr. Dewdney thought this would not be sufficient; and if the Board did not show a more liberal spirit, they must expect their Surgeons to get a little lukewarm. Mr. Croaker moved as an amendment that £20 be presented; he thought the sum not extravagant. Mr. Cecil Bewes seconded the amendment. The original resolution was put to the vote, and lost by an overwhelming majority. Mr. Cork proposed, and Mr. Dewdney seconded, that the amount be £10. This was carried. Now, this is really a shabby sum, under the circumstances of the case. The extra work was thrust upon Dr. Ellerley. He had much labour and expense thrust upon him, and moreover, as stated by several of the Guardians, had lost much private practice in consequence. The Guardians of Plympton, as of elsewhere, may rest assured that the kind of "economy" they have exercised in this case, in the long run is "the penny wise and pound foolish" system.

SMALL-POX JOTTINGS.

THE waves of the epidemic ebb and flow. In some districts the disease is on the increase, in others stationary, in others, again, decreasing. Dr. Stevenson's monthly report to the St. Pancras Guardians states that the mortality from small-pox in the parish was identical with that of the preceding month, whilst the average number of cases reported to the sanitary department fell from sixteen to ten per week. During the last week of the month, however, the number of new cases rose to twenty-two. Small-pox appeared to be increasing not only in the parish, but also throughout the metropolis at that time. During the week ending November 4, the number of new cases fell to nineteen, and during the following week thirteen cases were reported. Nearly all of these were of the pauper class.——Small-pox in Sheffield is very prevalent; two Hospitals are about to be erected for the accommodation of the patients. Upwards of 400 cases are reported by the relieving officer alone.——The disease is still on the decrease in Marylebone, and Dr. Whitmore has no apprehension of a renewed attack.——The returns presented on Saturday to the Metropolitan Asylum Managers showed that fever was greatly increasing, no less than fifty admissions having been made to Homerton during the fortnight, and there were now eighty-nine against forty-seven a fortnight since. Small-pox maintained the same high number of fresh cases as a fortnight since, but there was no apparent increase.——In his last monthly report for St. George's, Hanover-square, Dr. Aldis said only one person had died in the district from small-pox since his last report.——A small-pox Hospital having been opened at Taunton, a general exodus has taken place from the neighbourhood, and an action against the Local Board is threatened by the owners of property in the locality.——Small-pox is spreading rapidly in Philadelphia, New York, and other American cities.——On Monday night, at Wakefield, two military Hospital tents used as a small-pox Hospital were destroyed by fire, and two of the three patients who occupied one of the tents, and one of the two nurses who occupied the other, were burnt to death.

A LEGAL CORONER ON UNQUALIFIED MEDICAL PRACTITIONERS.

ANOTHER of those cases which are constantly cropping up to show the dangers of unqualified Practitioners occurred last week. At an inquest held by Mr. Humphreys on the body of a child, aged 9 years, it appeared in evidence that the deceased was the daughter of a cabinet-maker. For the last three weeks she had been ill, and had been taking medicine supplied to her by a druggist. The mother believed him to be a "regular Doctor," and he had "never told her different." The deceased getting worse, she sent for Mr. Richards, who promptly attended, but the child died soon after. Mr. Richards said, when he saw the child she was too far gone for him to render any assistance, and she died from water on the chest. In his summing-up, the Coroner emphatically remarked, "There can be no question that the life of this child would have been saved if proper Medical assistance had been rendered, and there is no reason on earth why such assistance was not forthcoming, except the fact that the first witness—the mother—believed a druggist to be a Doctor, and he did not undeceive her. It was lamentable to think of the number of lives that are sacrificed for the want of Professional assistance, poor people blindly believing that every druggist is a Medical Practitioner." Legislation cannot do everything, but it can effectually prevent a mere drug-seller from holding himself out as a legally qualified Practitioner of Medicine.

PATHOLOGICAL SOCIETY OF DUBLIN.

THE inaugural meeting of the thirty-fourth annual session of the Society took place on Saturday, November 25, in the Anatomical Theatre of the School of Physic, Trinity College. The chair was occupied by the President, Dr. James Stannus Hughes. Dr. William Moore exhibited several interesting specimens of Amyloid Degeneration removed from the body of a soldier, 28 years of age. Mr. John Hamilton presented an example of Extensive Chronic Disease of the Knee-joint, in which the various stages of synovitis, ulceration, and finally erosion of cartilage were all well characterised. Dr. Hayden showed a case of Aneurism of the Heart, in which death suddenly supervened in consequence of rupture into the pericardium. The case was remarkable, as having presented absolutely neither signs nor symptoms during life. The muscular structures of the heart had undergone extensive fatty degeneration. The Chairman notified that the subject selected by the Council for competition for the Society's gold medal, to be awarded at the close of the session in April next, was "The Diagnosis and Pathology of Injuries of the Thorax and its Contents." The Society subsequently adjourned for the transaction of private business. On the motion being put that the election of officers for the forthcoming session be proceeded with, an amendment was moved by Dr. Atthill, seconded by Dr. Bennett, and carried, that the meeting be adjourned until December 9 next.

THE MEDICAL STUDENTS OF PARIS AND ROSSEL.

IT is creditable to the Medical students of Paris that they have been foremost in appealing to the President for a commutation of the sentence on Rossel. The first signature to the appeal is that of a Medical student, and he was supported heartily by his *confrères* throughout the capital and the country. It would appear that the appeal was unsuccessful. Rossel was shot on Tuesday morning last. Whatever his crimes, he was heroic, able, and single-minded, and was well worthy of the efforts to save him made by the students of Paris.

A LUCRATIVE APPOINTMENT.

WHO shall say that the Medical officers of unions are overpaid Wherever they may be treated liberally, the Surgeon of No. 8 District of the Honiton Union is not amongst them. The Guardians advertise for a Medical officer at a salary of £9 per annum! Who can resist such a tempting offer?

THE MURPHY ANNUITY FUND.

The funds subscribed and promised by the Profession towards the purchase of this annuity have already amounted to a sum sufficient to secure for Dr. Murphy a life annuity of fifty pounds. Some inevitable delay in obtaining the necessary age certificates, etc., has prevented the treasurer (Dr. Arthur Farre) from purchasing the annuity. The papers, however, will be ready, and the amount purchased, on January 5, 1872. In the meantime, the amount subscribed being in excess of that which is necessary to purchase an annuity on the sole life of Dr. Murphy, and many of the friends of Dr. Murphy being desirous to include in the provision his wife, who would otherwise be left destitute at his death, it is intended that an effort shall be made to increase the existing surplus to a sum sufficient to extend the proposal over the two lives. For this purpose £130 will be wanted, and it must be collected before the close of the year. Mr. Campbell De Morgan, 51, Upper Seymour-street, will act as treasurer of the supplementary fund, and Dr. Wiltshire, 57, Wimpole-street, W., as honorary secretary. When the full amount is collected, it will be handed over to Dr. Farre, the treasurer of the original fund, who will invest the whole sum in the names of the trustees originally announced.

THE CATERHAM ASYLUM.

It appears that there is some little foundation for the statement made by Dr. Stallard, at a late meeting of the Holborn Board of Guardians, to the effect that cases not fit for the Asylum at Caterham had been removed from the workhouse to that place. The Committee of Caterham, in their report, do not admit that any sane person was there admitted as insane, or that any sane person whatever was in the Asylum. The Committee, with reference to some aged persons, "thought that they ought never to have been brought to the Asylum, for it was obviously wrong to remove these people so far, and the Committee had remonstrated with the parish authorities against this being repeated." The result is that the Metropolitan Asylums Board have addressed a memorial to the Local Government Board, asking that further checks should be imposed on the admission of patients to the metropolitan asylums.

PRESENTATION TO A SURGEON.

A few of the friends of Mr. Leach, Surgeon, of Shaw, near Oldham, have presented him with a very handsome brougham, built by Cowburn, of Manchester, along with a testimonial, of which the following is a copy:—

"Dear Mr. Leach,—To mark the esteem in which you are held after following the Profession of a Surgeon in this place since (if we recollect aright) the year 1824, a few of your friends beg to offer a brougham for your acceptance; and they would gladly persuade themselves that it may be one means the more by which they may the longer have the benefit of your services.

"Dear Mr. Leach,

"Yours very truly, on behalf of the subscribers,

"JOHN CROMPTON."

"High Crompton, November, 1871."

MIDWIVES FOR THE KENSINGTON UNION.

In many of the unions of the metropolis and the country, midwives have the sole charge of the patients, subject, of course, to an application, in cases of necessity, for assistance from the Medical officer. As a rule, we believe the plan works well, and, where the guardians are liberal in their views of what are called "extras" in midwifery, no just ground of complaint can be urged against the system. The subject of appointing midwives to the Kensington Union was before the Board last week, and the discussion, which excited much interest, will be resumed at an early date.

CHOLERA IN CONSTANTINOPLE.

By the latest advices, we learn that cholera is increasing at Stamboul and the neighbourhood near the Sultan's palace.

FROM ABROAD.—M. PÉAN'S CASES OF GASTROTOMY—CAMPHOR WITH BROMINE AS A SEDATIVE—THE FRENCH SCIENTIFIC SOCIETIES AND THEIR GERMAN MEMBERS—PROGRAMME OF THE PARIS FACULTY OF MEDICINE.

In an oral communication recently addressed to the Academy of Medicine, M. Péan stated that, notwithstanding the troublous times of these last two years, he had performed gastrotomy thirty-two times in Paris, upon subjects aged from 16 to 68 years, during this period. In at least two-thirds of these cases, the patients at the time of the operation seemed as if they had but some months, or even some weeks, to live. In twenty-six instances the operation was well borne, and gave rise to no accidents that could be attributed to it. Four of the patients, however, died afterwards—two from epidemic dysentery, then ravaging Paris; one (a patient aged 16) from convulsions, which were probably tetanic, and came on six weeks after the operation, when the patient's health seemed quite re-established; and one from senile exhaustion, the subject being 68 years old. All the others are now in good health, and eighteen of their number recovered without having, even during convalescence, experienced any complication. Of the six patients who succumbed in consequence of the operation, two died some days after it from pelvic peritonitis, brought on by the entrance into the cavity of the peritoneum of some of the fetid pus contained in the tumour; another died some days after the operation, from the fright caused by the cannonade of Fort Bicêtre; one died from senile cachexia, she being 61 years of age, and deprived of proper nutriment during the blockade; and another also died from scorbutic hæmophilia, due to physical privations and moral suffering of all kinds during the siege. All these operations were performed at Paris, either within the fortifications or at a *maison de santé* at Levallois-Perret, and the results prove that the air of Paris cannot be so deleterious as it has been represented to be. But, if the place of operation does not go for much in the cure of these patients, this is not to be said with regard to the attentions paid to the cases consecutive to the operations. These are of capital importance, and it is to the extent to which they were carried out at this *maison de santé* that M. Péan attributes in great part the unexpected result he there attained of fourteen cures in sixteen operations.

Professor Deneffe, of Ghent, states (*Presse Méd. Belge*, November 19) that for more than two years he has employed a combination of camphor and bromine, which he thinks is entitled to general attention. The celebrated chemist Laurent showed that bromine will easily unite with camphor at the ordinary temperature, but that the product is slowly decomposed by exposure to the air. M. Swartz, Professor of Chemistry at Ghent, has shown that this body heated in a closed vessel is resolved into hydrobromic acid and a crystallised compound which is monobromised camphor (*camphor monobromé*), a body differing only from ordinary camphor by the substitution of an atom of bromine for an atom of hydrogen. It is a perfectly crystallised substance, fusible at 76° C. and boiling at 274°. At Professor Swartz's request, M. Deneffe has investigated the therapeutical properties of this body, and has found it to be an excellent sedative for the nervous system. He intends shortly to publish his cases in proof of this, and, in the present communication, furnishes one of these, in which excitement of the nervous system passing into true delirium tremens was effectually relieved. He prescribed it in the form of pills, seventy grains being made into thirty pills, of which one was given every hour until twenty had been taken. For three days longer from forty-five to sixty grains were given in the twenty-four hours, the quantity being diminished from forty-five to thirty grains daily for a week longer. The recovery was progressive and stable.

In relation to our note of last week upon the expulsion of its German members by the Société Médico-Pratique, we may

mention that we have seen a letter from M. Giraldès, in which he states that no importance should be attached to the action of these minor societies in this matter. Neither the Institut, the Académie de Médecine, nor the Societies of Surgery, Anthropology, or Biology have erased the names of the German members from their lists—"placing the scientific question above all," and endeavouring to forget that German *savants* have performed or sanctioned unworthy actions. This is as it should be. Whether such actions have or have not been committed, and whether, as M. Giraldès asserts, the Geneva Convention was intentionally violated before Paris by order of the German staff, time will prove, and European opinion will pronounce; but it is a great point gained that heated passion has not been allowed to involve the votaries of science in a line of conduct that would afterwards have led to inextricable embarrassments. The letter in question contains, also, a reproof, the justice of which will be admitted:—"If Professor Virchow and other *savants* regard us at the present time as occupying the lowest place in the ranks of science, it may be as well to remind them that their revelation is somewhat late in making its appearance; for they have hitherto highly prized the distinctions and prizes at the disposal of those thus characterised as the lowest among *savants*." We are not aware that Professor Virchow himself has employed expressions justifying this rejoinder; but some of his colleagues, writing for the press, have spoken of the state of affairs in France with a coarse brutality and heedless vanity which are very reprehensible. All who are acquainted with the history of what science in all its branches has heretofore done in France, and who are aware of the elastic energy inherent in its cultivators, confidently anticipate that when the oppressive agency of past subjection and the disturbing influences of present turmoil have yielded to the genial encouragement springing from free institutions, she will again take her place amongst the foremost teachers of the age—rendered also, it is hoped, less unmindful than heretofore of the labours of investigators working elsewhere.

The following is the programme of the courses of lectures to be delivered at the Paris Faculty of Medicine during the winter session of 1871-72. It will be remarked that there is no provision in it for teaching Physiology:—1. Medical Physics, M. Gavarret; General Physics—Electricity and Light—twice a week; and Biological Physics—Vision and Audition—once a week. 2. Surgical Pathology, M. Verneuil—Traumatic Lesions—thrice a week. 3. Anatomy, M. Sappey, thrice a week. 4. General Pathology and Therapeutics, M. Chauffard; Disease in general—Classification of Diseases and Morbid Etiology—thrice a week. 5. Comparative and Experimental Pathology, M. Brown-Séquard, thrice a week. 6. Medical Chemistry, M. Wurtz—General Chemistry—twice a week; and Biological Chemistry—the Chemical Phenomena of Digestion, and the Chemistry of the Blood—once a week. 7. Medical Pathology, M. Axenfeld—Diseases of the Nervous System—thrice a week. 8. Operations and Apparatus, M. Denonvilliers—Treatment of Gunshot Wounds; Ligatures and Amputations—thrice a week. 9. Histology, M. Robin, thrice a week. 10. History of Medicine and Surgery, M. Daremberg—History of Medicine—once a week; and History of Diseases, principally in relation to Diagnosis, twice a week. 11. Clinical Medicine, M. Isambert for M. Bouillaud, and M. Sée at La Charité, M. Béhier at L'Hôtel-Dieu, and M. Lasègue at La Pitié, daily from eight to ten. 12. Clinical Surgery, M. Laugier at L'Hôtel-Dieu, M. Broca at La Pitié, M. Gosselin at La Charité, and M. Richet at L'Hôpital des Cliniques, daily from eight to ten; M. Broca will also give lectures in the theatre thrice a week. 13. Clinical Obstetrics, M. Depaul. 14. Clinical Lectures on Diseases of Children, M. Roger, once a week.

Mr. A. H. Hackney has been elected Medical Officer of St. Mary's District, Marylebone.

AUTOBIOGRAPHICAL RECOLLECTIONS OF THE PROFESSION.

No. XVIII.

By J. F. CLARKE, M.R.C.S.,
For nearly forty years on the Editorial Staff of the "Lancet."

A MEDICO-LEGAL TRIAL.

Oxford, the assumed attempted Assassin of the Queen: Did he Fire with Loaded Pistols?—The Plea of Insanity successful; Righteousness of that Plea in this Case—Medical and Legal Insanity—Oxford not Legally Convicted—Erskine, and Trial by Jury.

In the afternoon of June 10, 1840, a fine bright day, the town was startled with the announcement that an attempt had been made to assassinate the Queen. The news soon spread over the entire kingdom. Intense indignation was expressed and felt against the would-be assassin, and intense joy at the "marvellous escape" of her Majesty. The evening newspapers published late editions giving an account of the proceedings, which occupied the thoughts and tongues of everyone. It appeared that the Queen and Prince Albert were proceeding from Buckingham Palace up Constitution-hill in an open carriage, and that when they had reached about half-way up the hill two discharges of firearms in quick succession were heard. These sounds proceeded from the railings of the Green-park. A young man was seen by several persons near him to fire off two pistols. He was immediately arrested, and given into the custody of the police. He proved to be a bar-boy—or, more properly speaking, pot-boy—of the name of Edward Oxford. It is said that on arriving at the police-station he inquired whether the Queen had been hurt. He was taken before a magistrate, and eventually committed for trial for "shooting at the Queen with pistols loaded with ball."

I knew the prisoner and his family well, and I immediately exclaimed, on hearing of his arrest, "The boy is mad. I am not surprised."

Immediately after his commital his mother, a widow—herself most eccentric, if not insane—came to me respecting her son. She had retained for his defence Mr. Pelham, a most respectable solicitor at the East-end of London; and at an interview with that gentleman I gave my opinion as to the state of mind of young Oxford, and advised that the plea of insanity, or rather of "unsoundness of mind," should be urged in his defence. At this time the Society for "Abolishing Capital Punishment" were making great efforts to carry out their object, and the late Mr. Sidney Taylor was the barrister who represented them, not only in courts of law but also in the newspapers—more particularly in the *Morning Herald* of the time, in which leading articles in favour of the objects of the Society were constantly appearing from the pen of Mr. Taylor. Sidney Taylor was a man of good ability, an able writer, and a sound lawyer; but he was not a good speaker, was in wretched health, and unable to bear prolonged fatigue. He was a man of most humane sentiments, and of the highest honour. Mrs. Oxford was in very straitened circumstances, and made application to the Society which Mr. Taylor represented for pecuniary assistance to enable her to defend her son. This was promised, and granted on condition that Mr. Taylor should "lead" in the case. The conditions were agreed to, and I had several interviews with him at his house in Chancery-lane respecting the defence and the Medical witnesses whom we should engage in the matter. I suggested Dr. Conolly (then the Resident Physician of Hanwell), Dr. Hodgkin, and Dr. Chowne; to these were added Dr. Birt Davies and Mr. Partridge, of Birmingham, as they had known the father of the prisoner, and could testify to the fact of his being of unsound mind. It was arranged by Mr. Taylor and myself that it was desirable the Medical witnesses should avoid all definition as to what insanity really was—that the evidence should be as simple as possible, and conveyed in language that the jury could understand and appreciate. In truth, we were to speak only to facts, and leave the lawyers to fight the legal questions that might arise. The wisdom of this arrangement was fully borne out by the proceedings at the trial, which was not only one of the most remarkable that ever took place, from the nature of the offence, but for its results, and the course the

law officers of the Crown and their associates thought proper to pursue. The Government seemed determined to convict the prisoner of the highest crime known to the country—that of high treason. So satisfied were they that he would be convicted of this, that, singularly enough, the prisoner was indicted on a single count, which indicated a "foregone conclusion" in the mind of the prosecution. That count was as follows:—That he, on June 10, 1840, "discharged a certain pistol, the same being loaded with gunpowder and a certain bullet, at the Queen." It has always appeared to me most extraordinary that the prosecution relied upon this single count, because there was no evidence whatever, and merely a surmise, that the pistols contained a bullet. The Crown lawyers were well convinced of this, and, as the result showed, they made a grave mistake in not indicting the prisoner on other counts. I can only attribute this oversight—for such it was—to the impression that the popular indignation against the prisoner—and justly so—was sufficient in itself to prevent any jury from arriving at a verdict which would release the prisoner. Happily, though the evidence entirely broke down as to the ball in the pistol, the verdict had the effect of imprisoning the foolish boy, who had, as he called it, "popped at the Queen." But the prosecutors had to thank the witnesses for the defence that this result was arrived at. Had the plea of insanity not been urged in his defence, and the verdict given in accordance with that plea, the prisoner, according to all principles of law and justice, must have been discharged. I shall show, in the course of this narrative, that no other conclusion could have been arrived at by the jury. This is the more striking because the prosecution, represented in the summing-up by Sir Thomas Wilde (then Solicitor-General, and afterwards Lord Truro) ridiculed the plea altogether; and the cross-examination of the witnesses for the defence went mainly to show that they were philanthropists, and entirely mistaken with respect to what "legal insanity" really meant. When I give a short account of the trial I shall show what grounds I have for this statement. When it was determined that the defence should be based on the "unsound state" of the prisoner's mind, I immediately took steps to secure the attendance of the witnesses I have named above. The most important of these was Dr. Conolly, and I arranged with Mr. Pelham, one afternoon shortly before the trial, to go with him to Dr. Conolly at Hanwell, to seek his advice and opinion on the matter. We went accordingly to Hanwell, and found the Doctor at home. On stating the object of our visit, he immediately said, "I cannot believe that the prisoner is responsible for his actions. There is an entire want of motive, and, from what I have heard of his conduct since his committal, I feel convinced that a plea of insanity can be maintained; but, of course, I can only satisfy myself on this point by seeing and carefully examining him." We stated that our resources were limited, and we could not remunerate him for his attendance in the way we desired. He at once emphatically refused to accept of any kind of remuneration, would give all the time and attention to the case he could, and, with the benevolence and high-mindedness which distinguished him through life, said, "If he were a rich instead of a poor man, I would not accept a farthing; it is a duty I ought to perform, not less for the sake of humanity than of science." It is something to say in favour of our Profession that not a single farthing was paid to any of the Medical witnesses who appeared at the Criminal Court of the Old Bailey in defence of Oxford. Some of these witnesses attended at considerable expense, all at great inconvenience, and none of them without considerable sacrifice of time and money. It was decided on July 8 that the Medical witnesses should visit Newgate to see and examine the prisoner. Accordingly, by an order of the Home Secretary, permission was granted to us for that purpose. We arrived at Newgate about one o'clock—Dr. Conolly, Dr. Hodgkin, Dr. Chowne, and myself; and Mr. Pelham, the solicitor. On presenting ourselves we were received most courteously by Mr. Cope, the late governor of the prison. On Mr. Pelham handing to him the order for our admission, he expressed himself as extremely sorry to keep us waiting, but his instructions were imperative that no Medical gentleman should have an interview with Oxford except in the presence of Mr. Aston Key. It is difficult to understand why such instructions should have been given; but given they were, and we were kept waiting until a messenger was sent to Great St. Helen's for Mr. Key. The messenger returned. Mr. Key was out, and it was quite uncertain when he would return home. Mr. Maule, the then Solicitor of the Treasury, was present, but declined to take the responsibility of admitting us to the prisoner. After waiting for, I think, nearly two hours, I appealed to Mr. Cope to take upon himself the onus of admitting us; and particularly urged upon him the fact that, as the trial would take place on the next day or the day following, the refusal to admit us would be, in fact, a denial of justice to the prisoner. "Well, gentlemen," he said, "I will be no party to such denial of justice; be good enough to follow me, and you shall see and examine Oxford." We followed Mr. Cope accordingly, and were ushered into a superior kind of cell in which the culprit was placed. Mr. Maule accompanied us. The prisoner was well acquainted with me. I shook hands with him, and introduced him to the gentlemen who were with me. Those who had not seen him before were at once struck with his youthful appearance and his manners. A short thin youth, with an expression mild and respectful, but still not abashed, stood before them. He answered all questions readily and without the least reserve, and made a favourable impression on all. Dr. Conolly very carefully examined his head, and took me aside for a moment to remark that there was a peculiarity in his forehead which he had never observed except in persons who were either idiotic or otherwise unsound. This peculiarity consisted in a depression at the upper part of the forehead, as if some absorption of the brain at that point had taken place, and the frontal bone had adapted itself to the deficiency. "This youth," said Dr. Conolly, "cannot with such a configuration be entirely right." We all were convinced that, in spite of his manners being in the main rational, the prisoner was not of sound mind; and, taking our examination of him in connexion with the fact that his father was a lunatic, and his mother little (if any) better, that we might go into court the next day confident that, with corroborative testimony as to his antecedents and the hereditary taint from which he suffered, we could convince the jury, if not the lawyers, that he was not responsible for his actions. I should state that the prisoner's perfect *nonchalance* with respect to his position, perilous as it was, impressed us strongly with his mental condition. We held a consultation after the interview, and we all felt convinced that we could justly uphold the plea of insanity, notwithstanding the opposition we contemplated from the Government—an anticipation which we had sufficient grounds for entertaining.

On Thursday, the 10th of July, the prisoner was put upon his trial. Great interest was excited by it, and the court was crowded. Owing to the good arrangements made by the under-sheriffs, the witnesses and persons interested in the proceedings were well accommodated. The Medical witnesses, consisting of the gentlemen I have previously named, were placed in an excellent position in the middle of the court, and to the left of the judges. For seeing and hearing we could not have been better placed. The presiding judges were Lord Denman (Lord Chief Justice), Mr. Baron Alderson, and Mr. Justice Patterson. On the first day the Crown was represented by the Attorney-General (Sir John Campbell), the Solicitor-General (Sir Thomas Wilde), and Mr. Wightman, to whom were added on the following day Sir F. Pollock, Mr. Adolphus, and Mr. Russell Gurney, the present Recorder of London. On behalf of the prisoner were Mr. Sidney Taylor (then suffering from a painful disease, which shortly afterwards ended his life), and Mr. Bodkin (the present Assistant-Judge of the Middlesex Sessions). On being placed at the bar, the prisoner was the object of everyone's attention. A small, slim youth, aged 18 or 19, but looking younger, with a somewhat pleasing expression of countenance, stood forward, and, during the whole time the trial occupied, appeared less concerned than any one of the numerous auditory that thronged the court. This *nonchalance* and carelessness was manifested even up to the retirement of the jury and to their return with the verdict, insomuch that Lord Denman, in his summing-up, made particular allusion to it, and said such conduct seemed scarcely compatible with a right condition of mind. The evidence of the act of firing at the Queen was that of some bystanders, who deposed to having seen him level the pistols at the Queen, and fire them off. The evidence that there were bullets in them totally failed—in fact, there was no colourable pretence for saying so, except that, when at the station-house, he was asked if they were loaded with bullets, and he acknowledged that they were. This was no doubt suggested by his insane vanity and wish to deceive; but I have every reason to believe that the charges consisted simply of a little powder. It is all but impossible, if bullets had been in them, they should not be found—*there were, in fact, no bullets in them.* The prosecution, it was evident to all present, had broken down, and the prisoner, on the solitary count on which he was indicted, must be acquitted. Whether this had any influence on the manner in which the Medical witnesses were cross-

examined, or not, I cannot say; but it seems on reflection to be a second illustration of blundering on the part of the Crown lawyers. However this may be, the cross-examination was more than severe; and the attack on us by the Solicitor-General in his answer was so unmeasured in its terms, that the Lord Chief Justice told the jury some of the remarks were uncalled for, and that the witnesses had given their evidence with remarkable propriety and discretion. The defence was "Not guilty" on the ground that the pistols did not contain bullets, and "Not guilty" on the ground of insanity. The axiom laid down by the lawyers was in the following words, or words to the precise effect:—"The first question would be, whether, supposing the prisoner to be accountable for his actions, he was guilty of the offence laid to his charge; and the second question would be, whether, at the time he commited the act, he was accountable to the law for his actions." Now, the prosecution assumed an affirmative to both questions. The defence assumed that the prisoner was not guilty on the ground of insanity, as evidenced by the hereditary taint, manners and appearance under peculiar circumstances, cerebral configuration, and absence of adequate motives for the offence with which he was charged, and that he was inflamed by a morbid and uncontrollable impulse. Evidence on all these points was given. With a solitary exception there was nothing technical or over-learned in the evidence; but I have said that it was treated with an amount of severity and rigour on the part of the Crown which was scarcely justifiable. The Solicitor-General contended that, as the prisoner knew what he was doing—that he was doing wrong, and would be punished for so doing—he must be in a sound state of mind; so far as the legal definition of that term, *quoad* the criminal law, he was sane. He ridiculed the idea of *moral insanity*, and would not admit the existence of morbid impulses, even if dependent on disease, as any excuse for crime.

In the course of the trial it came out that the prisoner, shortly before the commission of the offence, had written a letter to the barmaid of a tavern where he was pot-boy, and thus addressed it—

"Fly! postman, with this letter bound,
To a place they call the 'Pig in the Pound';
To Miss Chittenden there convey it—
And with 'spedility' obey it.
Remember, my blade,
The postage is paid."

Now, this letter was certainly not relied on as evidence either way. The worst lunatic may write doggerel verse, and even good poetry, as witness "The Morningside Star"; but the Solicitor-General ridiculed the idea that the "doggerel" could have been written by a person of unsound mind, and instanced a case in which a celebrated literary character of the day thus addressed a letter to Mr. Pollock—

"This is for David Pollock, squire;
For him in Elm-court inquire,
On the first-floor—look no higher;
There you'll catch him.
"He'll pay you twopence for this letter
(He never paid it for a better);
If he doesn't, like a setter
Watch him."

The summing-up of the Judge was impartial and able, and evidently pointed out to the jury that the verdict of acquittal on the ground of insanity was the only one they could possibly arrive at. The jury, having retired, returned into court after some time, with the following special verdict:—"We find the prisoner, Edward Oxford, guilty of discharging the contents of two pistols, but whether or not they were loaded with ball has not been satisfactorily proved to us, he being of unsound state of mind at the time."

This, in fact, was a verdict of acquittal; he was not found guilty of the crime with which he was charged, and was not therefore a criminal lunatic. The scene in court was indescribable, the excitement intense. The Attorney-General referred their Lordships to the 40th George III., which provides that persons acquitted on the ground of insanity shall be imprisoned during his Majesty's pleasure. He presumed the jury intended to acquit the prisoner on the ground of insanity by the verdict they gave, and, therefore, he applied to their Lordships under the Act of Parliament. Mr. Sidney Taylor submitted that the Act of Parliament in question did not apply to the present case, inasmuch as the jury had acquitted the prisoner of the offence with which he was charged, by negativing the fact that the pistols were loaded with bullets.

Lord Denman said that the jury were in a mistake. It was necessary that they should form an opinion as to whether the pistols were loaded with bullets or not; but it appeared that they had not applied their minds to that point, and, therefore, it would be necessary that they should again retire, and say, "Aye" or "No." Did the prisoner fire a pistol loaded with ball at the Queen?—that, in truth, was the question at issue. The foreman said they could not decide that point, because there was no satisfactory evidence produced before them to show that the pistols were loaded with bullets. After a great deal of discussion of a very animated kind, the jury retired, and, after the absence of an hour, returned, and found the prisoner "*Guilty, he being insane at the time.*" Then, said the Judge, the verdict stands thus:—"Not guilty, on the ground of insanity." The Attorney-General said, that being the case, he moved their Lordships, on behalf of the Crown, that the prisoner at the bar, Edward Oxford, be confined in strict custody during her Majesty's pleasure. Lord Denman replied, "That is a matter of course."

Thus ended this memorable trial. It appears to me to have considerable interest in its Medical aspects; of course I allude to the success of the defence set up, which was in opposition to what lawyers define to be insanity in a criminal case. The Crown went directly for the highest crime known to the law; they totally ignored the plea of insanity, and though they called no witnesses, Mr. Aston Key was present during the whole trial, and prompted the counsel for the Crown with the questions they should put in cross-examination. This case showed the importance of Medical witnesses using the plainest language and the commonest terms, so as to bring their evidence within the compass of the understanding of the jury. In this trial, as in all others in which Medical testimony is given, as a rule, the witnesses were soundly rated by the Crown lawyers. The summing-up of the judge was admirable; and as he evidently saw no jury could possibly bring in a verdict of "Guilty" on the entire count with the evidence before them, he summed up in favour of the plea of insanity. In this case, again, the evidence of insanity could not be considered strong merely from the acts of the prisoner, leaving out the firing at the Queen, which, however, was advanced as a proof of his unsoundness. This was admitted by the judge; and, coupled with the configuration of the skull and the *nonchalance* of the prisoner, the plea, I think, was fairly established. The boy was known to be vain and conceited, and had been long in the habit of reading sensational stories, and forming plans for regenerating society; and it was contended he fired the loaded pistols with the intention of having his name paraded, and his act made the subject of conversation everywhere. This may be true to some extent; but I contend that the overt act itself for which he was tried was sufficient to show that he acted under a morbid impulse—under a condition, in fact, of moral insanity. Doctors and lawyers will probably always be at issue as to what constitutes "unsoundness of mind." The legal definition as laid down by the twelve judges is certainly too limited to meet all cases, and cannot be accepted in its fullest sense by the Medical jurist. I know the danger of carrying the doctrine too far; but we must all have seen the evil of too strictly limiting it. The plea of insanity may no doubt be abused, but it is sometimes ignored most unwisely in the cause of justice and humanity.

There is one point in the case which involves important interests, and notably the value of trial by jury. No one would have desired to see the prisoner released, to "fire again upon the Queen," as the Attorney-General said; but was not justice to some extent perverted by the judge not recording the special verdict of the jury? The prisoner was tried for a specific offence, and acquitted. He should have been released upon that ground; if he had not committed the crime it was not necessary in the cause of justice to find him insane. Whatever had been the result, however unpopular at the moment, if I had been in Mr. Sidney Taylor's place, I should have insisted on the judge recording the special verdict of the jury. The prisoner was entitled to it by law and justice, and it should certainly have been done. In a time when the liberty of the subject and the press were under a cloud, Mr. Erskine defended a client against a charge of libel brought against him by the Crown. At that time the jury were assumed by some lawyers to have nothing to do with determining whether the subject-matter was libellous or not; they had only to find as to the fact of the defendant having or having not published it. In the case I refer to, the jury brought in a special verdict—"Guilty of publishing, but the matter is not libellous."

Judge Buller, an able but an arbitrary lawyer, refused to record the verdict, and requested the jury to retire and modify it. This Erskine requested them not to do, and a fierce contention arose between the court and the advocate, in which, more

than once, Buller threatened to commit the recalcitrant Erskine for contempt of court. But Erskine eventually triumphed; and it was this accident that gave rise to his famous speeches on "Trial by Jury"—that "Palladium," as it is called, "of English liberty." Had Taylor at the trial of Oxford insisted upon the special verdict being recorded, I think he would have been successful. But much may be said in excuse for his not entering into antagonism with the bench. The case was one of great peculiarity, the public mind was bent on punishing the culprit, and Taylor was in the last stage of a painful and mortal disease. The jumble which took place at the close of the trial may be clearly understood by the legal mind; to mine, I confess it still remains a jumble. How "guilty" and "not guilty" can have the same meaning I am at a loss to discover; but such is made to appear.

Oxford remained many years in Bethlehem Hospital, where at first he amused himself with knitting gloves, which he sold to visitors. He afterwards occupied himself in the study of ancient and modern languages, and was a proficient in some of them. He was afterwards removed to Broadmoor, and a short time since released, on condition that he left England, and never returned to it. I am always satisfied that the Medical evidence in his case was just and right. Many people thought that, as in after-life he gave no overt proofs of unsoundness of mind, he could not have been mad at the time of committing the act for which he was tried. But this is no real argument; it is based on the assumption that insanity is not curable, or to be kept in check, by the employment of proper and judicious means.

ENTERIC FEVER IN MASSACHUSETTS

At a time when the serious illness of the Prince of Wales from enteric fever excites such a degree of public anxiety as now exists among all classes, and renders that disease, its probable causes, and usual course a subject of conversation in almost every household, it may not be inopportune to devote a small portion of our time and attention to this subject. In the Second Annual Report of the State Board of Health of Massachusetts (published in January of the present year), among other very valuable papers, we have lately read with great interest an inquiry into the causes of typhoid fever as it occurs in Massachusetts. It is well known that the disease is most rife in the months of autumn and early winter, but that no season is exempt. It is especially a disease of adolescence and early maturity, the greatest number of deaths from it occurring between the ages of 20 and 30. It is a disease of scattered communities, rather than of crowded towns—of rural, rather than of urban districts. In Massachusetts it is more destructive in farming towns than in the manufacturing towns and large cities. The same, we may say, is our experience of the disease in this country. The general result of the study as to its causes, on the opinions of the Medical world, has been to encourage the belief that in some way typhoid fever and filth stand in certain relations. The disease is supposed to be propagated by a poison as definite as that which causes vaccine disease. The vehicles through which this poison has been supposed to be conveyed into the system are various:—1st. Drinking-water made foul by the decomposition of any organic matter, whether animal or vegetable, but specially by excrementitious matters discharged from the bodies of those already suffering from the disease. 2nd. Air contaminated by any form of filth, but specially by privies, cesspools, pigstyes, manure heaps, rotten vegetables in cellars, leaky or obstructed drains. 3rd. Emanations from the earth, occurring especially in the autumn months and in seasons of drought.

The first of these causes the compilers of the Massachusetts report consider to be essentially English. They state that, in reading the reports of typhoid epidemics occurring in England of late years, it so far predominates over all other imaginable causes, that they are led to believe either that the English drinking-water must be exceptionally dirty, or that Medical advisers are unconsciously influenced by preconceived opinions, based upon the ingenious speculations of men of ability who have directed their attention to this form of danger. The American experience on this point seems to be, that while in some instances the evidence collected from various sources was so definite as to leave no doubt that the fever poison *was* received through drinking-water, in others, in which towns have lately been supplied with perfectly pure water, the consequent diminution of typhoid was not to such an extent as might have been expected, supposing impure water to have been the principal source through which the disease was spread. The diminution was only such as might have been looked for if the purification of air rather than of water were in question. The sewerage was improved by the drains being enabled to carry away impurities which would otherwise have lodged. The sewers are more thoroughly washed—and the people too. Cases are reported in which it is impossible to doubt that the disease was received by absorption through the alimentary canal; but in the great majority of cases occurring in Massachusetts in which the causes could be traced, *air*, and not water, must be regarded as the vehicle.

We now come to the second class of probable causes of typhoid—viz., propagation by air contaminated by filth. There is reason to suspect that the fever-producing poison is odourless, and that, under certain circumstances, it may be set free from decomposing substances before the foul-smelling compounds of hydrogen come to give us warning. Hence the danger may be greatest when decomposition is going on under difficulties—when it is impeded, suppressed, or imperfect. When the rotting material is *under cover*, whether in a cellar or in a drain, with a far less noticeable odour accompanying it than is often met with in the open air, or with no perceptible odour, the most disastrous consequences have been observed. As yet we ask in vain from organic chemistry what is that certain something which putrefying material gives forth under such circumstances.

The third class of causes of typhoid may be considered under the head of emanations from the soil. Soil seems at certain seasons to afford the conditions requisite for the concoction of this subtle poison, and air to be the vehicle by which it enters the body. The exposure of the bottoms of ponds and reservoirs during the season of heat and the season of decay is, of all others, the most frequent single cause assigned for the production of epidemics of typhoid fever in Massachusetts. A rich surface-soil with a sub-soil of clay has been remarked as seeming to co-exist with typhoid. Rock under a rich clay, preventing the subsidence of decaying matters beyond a certain point, where they would meet the constantly-moving current of sub-soil water, also seems likely to exert an influence in favour of the production of typhoid.

The views of Pettenkofer, that epidemics of typhoid fever stand in a fixed relation to certain obscure and as yet inexplicable changes in the soil, which changes are signalised by fluctuations in the height of the ground-water, have been interpreted in England to mean that in seasons of drought foul matters are retained in the loose soil, and that the area of drainage for each well is greatly increased by the subsidence of the ground-water level. In certain English towns the water-level was permanently reduced by artificial drainage, while pure water was brought in from springs and streams for the use of the inhabitants with a marked reduction in the mortality from typhoid. Pettenkofer, however, believes that the soil must be "typhoid ripe" before the disease will appear. While admitting the general importance of having drinking-water free from taint, he thinks that the artificial drainage of English towns signifies no more as regards typhoid fever than the movement of the face of a clock by human hands would influence the rotation of the earth. Setting the soil-clock at typhoid will not cause the disease. Filth will foster and increase its virulence, but will not produce it.

It may thus be seen that all the causes assigned, with the single exception of such changes as may occur in soil through natural processes, are under human control. They are, indeed, instances of human neglect, and, standing in the relation they do to one of our most destructive diseases, they but enforce the truth of the general statement, that clean air and clean water are among our greatest blessings.

Such are some of the conclusions of the compilers of the Report of the Massachusetts Board of Health, and they are true in England as in America;—it would be well that the general public of this country were more thoroughly acquainted with them. And we would here observe that the Report in which they are contained is addressed by the Massachusetts Board of Health, not only to the Medical Profession, but to the general public, and that the paper from which we have so freely quoted, as also all the others contained in the Report, are written in simple, non-technical language, perfectly intelligible to anyone of ordinary mental capacity. The example is worthy of imitation in our own country.

The illness of his Royal Highness the Prince of Wales has been assigned by the daily press to a wetting received during a drive in an open wagonette after shooting. Such a cause might produce pneumonia, pleurisy, congestion of the liver, or

a host of other inflammatory diseases, but not typhoid fever. The specific cause must have been at work, and encountered during some of the numerous visits the Prince has been making at various country houses of the nobility.

ASSOCIATION OF CERTIFYING MEDICAL OFFICERS OF GREAT BRITAIN AND IRELAND.

The fourth annual general meeting of the Association was held at the Adelphi Hotel, Liverpool, on October 20 last, Dr. Arlidge, the President, in the chair.

In the report of the Committee, reference was made to the new regulations respecting the reporting of accidents, which were generally approved of. But the Committee considered that the fee of sixpence for examining each "factory hand" presented at the residence of the Surgeon—fixed by the Factory Inspectors with the sanction of the Home Office—was most unprecedented, and beyond the scope and meaning of the Acts now in force, and quite as discreditable for the Government to offer as for the Surgeons to accept.

By sanctioning the examination of children and young persons at the residence of the Factory Medical Officer, the memorandum revives a proceeding which experience had proved to be both useless and a cause of irregularities, and one that had been repealed in recent Acts.

The Committee recommended that a short memorial to the Home Secretary be prepared, and sent to every Certifying Medical Officer for his signature, praying for a modification of this order, on the ground that so small a fee was never before offered for any public service whatever; for even in the case of the registrars of births, etc., the minimum fee for a *mere copy* of a birth register, when given on the formal requisition issued by the authority of the Inspectors, under a special clause of the Factory Act, is one shilling, whilst in ordinary cases it is three shillings and sixpence.

The following gentlemen were elected as officers and members of the Committee for the year 1871-72:—*President:* J. T. Arlidge, M.A., A.B., F.R.C.P. Lond., Physician to the North Staffordshire Infirmary. *Vice-Presidents:* F. Jordan, Esq., F.R.C.S., Surgeon to the Queen's Hospital, and Professor of Surgery, Queen's College, Birmingham; W. Roden, M.D., M.A., F.R.C.S., Kidderminster. *Treasurer:* E. Waters, L.R.C.P. Edin., Coventry. *Secretary:* G. M. Stansfeld, Esq., Redland, Bristol. *Members of Committee:* C. D. Purdon, A.M., M.B., T.C.D., Belfast; J. T. Mitchell, Esq., F.R.C.S., Stockwell, London; Thomas Bott, Esq., Bury, Lancashire; W. Lees Underhill, Esq., Tipton-green, Staffordshire; H. Collins, M.D., Wolverhampton; G. W. Hardy, Esq., Warrington; Robert Beales, M.D., Congleton; C. R. Crossley, Esq., Leicester; W. J. Clap, Esq., Nantyglo, Monmouthshire; A. H. Balfour, Esq., Portobello, Edinburgh; C. Johnson, Esq., Lancaster; R. G. Horton, Esq., Leeds.

A very able and instructive address was delivered by the President-elect, and was ordered to be printed with the other proceedings of the Association.

The desirability of all Factory Surgeons joining the Association was strongly insisted upon at the meeting; and in order that the general purposes of the Association should be more fully understood, as also the reasons for joining it, it was resolved that the report be sent to all the Medical Officers under the Factory Acts, whose names and addresses could be obtained.

The next annual meeting of the Association was decided to be held at Bristol not later than the second week of September, 1872.

The names of new Members should be sent to the Honorary Secretary, to whom, also, all communications should be addressed.

A "Medical Officer," in a letter to the *Punjaub Times*, affirms, as the result of long experience in the treatment of snake-bites, that the offering of rewards for dead cobras and kraits is the only effectual way of reducing the rate of mortality from this cause. The writer, who has recently tried the new "cures" without any success, recommends that this plan of extirpation should be sanctioned by Government and carried out by all civil Surgeons.

PROVINCIAL CORRESPONDENCE.

LIVERPOOL.

November 28.

On Thursday last, the 23rd inst., an interesting discussion took place at the Medical Institution, arising out of a contemplated alteration in the law which regulates the election of Physicians to the Northern Hospital. Not long since, on the occasion of the election of Dr. A. T. H. Waters as Physician to the Royal Infirmary, on the resignation of Dr. Inman, no candidate presented himself in answer to the advertisement issued by the Committee of the Northern Hospital, for the purpose of filling up the former gentleman's place. This led to a consideration of the rules, and the proposal was seriously entertained to throw open the office of Physician to general Practitioners. It is hoped, however, that the unanimous expression of opinion by an unusually large meeting of the members of the above-mentioned institution, that such a course would be prejudicial to the interests of the Profession in Liverpool, will lead the Committee to reconsider their contemplated change of rule, and to adopt such a modification of it as will permit any gentleman who (being properly qualified) is willing to relinquish general practice, to become a candidate. As the rule stands at present, the candidates are required, not merely not to practice midwifery, pharmacy, or Surgery, but not to have done so for six months previously to the date of election. They are required, also, to have been in the independent practice of the Profession of Medicine for at least three years. It is more than probable—it is, I believe, quite certain—that if these retrospective clauses alone are done away with, there will at once be several most eligible candidates ready to present themselves; and that if, therefore, the institution shall before long require the services of two Physicians, instead of one, as is not improbable, these services will be readily obtainable. This contingency will arise if Dr. Glynn, the second Physician to the Hospital, should be elected to fill the post at the Royal Infirmary rendered vacant by the recent retirement of Dr. Vose. There are two candidates—Dr. Glynn and Dr. Edward H. Dickinson.

For many weeks past the health of the town has been greatly improved. During the week ending October 28 the death-rate reached what for it is the exceptionally low limit of 23·5 per 1000 per year, and, although the weather has been extremely inclement, it still continues below the average. Besides the chest-affections so common at this season, the returns seem to indicate an increase in scarlatina and other forms of fever.

GENERAL CORRESPONDENCE.

ON THE RELATIVE MERITS OF THYROTOMY (OR DIVISION OF THE THYROID CARTILAGE) AND LARYNGOSCOPIC TREATMENT FOR THE REMOVAL OF GROWTHS FROM THE LARYNX.

Letter from Dr. Morell-Mackenzie.

[To the Editor of the Medical Times and Gazette.]

Sir,—Having been unfortunately absent from the meeting of the Medico-Chirurgical Society when Mr. Durham's interesting paper was read, I trust that you will kindly allow me space to vindicate my position.

In replying to Mr. Durham's strictures, I labour under great difficulty, inasmuch as I understand that many statements were made by him which do not appear in the abstract; but in my present communication I must necessarily confine myself to the matter as placed before the Profession in the published reports of the meeting.

It might be supposed from Mr. Durham's article that I objected to the operation of thyrotomy *in toto;* but quite the reverse is the case. At page 84 of my "Essay on Growths in the Larynx," I have remarked that "the introduction of the laryngoscope . . . . has given an increased prospect of success to the various operations by which the cavity of the larynx may be laid bare"; and again, at page 86, that "in the case of young children, who cannot be taught to submit to laryngoscopic treatment, extra-laryngeal treatment may be required." Furthermore, pages 89, 90, and 91 are occupied in describing the steps of the operation. On the other hand, I

have endeavoured impartially to point out the contra-indications and dangers of extra-laryngeal methods.

Mr. Durham states "that if, in any case, removal of the growth by the aid of the laryngoscope should appear practicable, the idea of resorting to section of the cartilages could not be entertained until fair trial had been made of the minor operation." It will be seen, therefore, that the difference between us is not so great as would at first appear; but whilst, so far as I can gather from the abstract, Mr. Durham seems to think that external operations on the larynx are indicated where it is not practicable to remove the growths through the mouth, I, on the other hand, consider it "a cardinal law that *an extra-laryngeal method ought never to be adopted* (even where laryngoscopic treatment cannot be pursued) *unless there be danger to life from suffocation* or dysphagia."

To enter into more detail, in considering the relative merits of thyrotomy and laryngoscopic treatment, I have dwelt upon three features—1st, Danger to Life; 2ndly, Recovery of Voice; 3rdly, Chances of Recurrence; and Mr. Durham has now added a fourth element for discussion—namely, the Comparative Difficulty of the Two Methods.

1. *Danger to Life.*—Of the twenty-eight cases tabulated by me, nine terminated fatally within two years. Mr. Durham takes exception to six of these, because they were cases of cancer; and those who have not read my book might suppose that I had suppressed this fact, whereas I have taken the greatest pains to give prominence to it. At pages 94 and 97 I have stated that "in six of the nine fatal cases the disease was cancerous (or semi-malignant)," and I have drawn attention to the same fact both at the head and foot of my thyrotomy table. And here I may remark that there is often great difficulty in estimating whether a case is malignant or not—for if a growth is completely removed and does not recur, it is considered benign; but if, on the other hand, it reappears, it is often reported malignant, though there may be no evidence of its pathological nature. Subtracting these six cases, however, and giving Mr. Durham the benefit of one other case which is in dispute between us, there remain two deaths as the result of twenty-two operations tabulated by me, or, in other words, there is a mortality of 9 per cent. Mr. Durham has now related five cases that have survived the operation, thus reducing the mortality to about 7 per cent. On the other hand, I am not aware that there exists a single case on record in which death has resulted from the removal of a growth *per vias naturales.*

2. *Recovery of Voice.*—According to Mr. Durham's own statement, of thirty-seven cases which he has collected, only nineteen were successful as regards voice, or, in other words, the natural voice was regained in only about half the cases; whilst of ninety-three published cases which I have treated laryngoscopically, the voice was completely restored in 75 per cent.—*i.e.*, in three-fourths of the cases.

3. *Chances of Recurrence.*—On this subject Mr. Durham has given no statistical information whatever, but has simply begged the question in the following words:—"With regard to the chances of recurrence, there could be no doubt that the more completely the original growth was removed, the less would be the probability of its reappearance. Neither could there be any doubt that such complete extirpation could be more easily effected in most cases after section of the cartilages than by any method practised through the mouth." The truth of the first proposition is self-evident, but that of the second is not borne out by facts. Of twenty-seven non-malignant cases (including Mr. Durham's five cases) the growth could not be extirpated at all in one, and in two the neoplasm was incompletely removed; death took place in four instances before there was time for recurrence. There remain, therefore, twenty cases, and of these recurrence took place in three, or in 15 per cent. In my ninety-three cases treated through the fauces, recurrence took place in six cases in which the growth had been previously completely extirpated—that is, in about 6½ per cent. In addition there were three other cases in which I was unable to effect complete evulsion, and a subsequent further development took place; but the cases of incomplete removal, having been excluded from the statistics of thyrotomy, may also be fairly excluded from mine.

It is true, as Mr. Durham remarks, that in my statistics of thyrotomy I have included cases of cancer; but he has entirely omitted to state that, in estimating the chances of recurrence, I have at the outset (page 97) eliminated the six malignant or semi-malignant, and only drawn my conclusions from the eighteen cases of benign character which survived the operation.

4. *Comparative Difficulty of the Operation.*—I quite admit that it is easier for a novice, who has never tried either method to remove a growth by section of the laryngeal cartilages than to do so with the aid of the laryngoscope; but I have yet to learn that an operation is to be recommended in proportion to the facility with which it can be executed. Lithotomy can, I believe, be more easily performed than lithotrity—amputation than resection—ligature of an artery (for aneurism) than compression; but, *cæteris paribus*, the more recent and difficult methods are universally preferred, because they are less dangerous. There is, however, at least one case on record in which thyrotomy, having been unsuccessfully attempted, the growth was subsequently removed *per vias naturales.*

Mr. Durham remarks that "in very few, if any, of the cases in which the larynx was opened, would it have been practicable to remove the growths through the mouth." I venture, however, to express my belief that, in many of the cases of thyrotomy, the growths might have been removed through the mouth had the operators shown greater perseverance, or, possibly, have been more experienced. It would obviously be invidious to particularise cases in reference to this point.

In conclusion, I must express my extreme regret that I quite inadvertently omitted to include in the thyrotomy table of my essay Mr. Durham's case, contained in Guy's Hospital Reports, 3rd series, vol. xii. This omission certainly would not have occurred, but that Mr. Durham's valuable contribution to "Holmes's System of Surgery" only reached me after the first proof-sheets of my work had appeared. I subsequently made some alterations in my text, in order to acknowledge Mr. Durham's important labours; and I am only sorry that at that period I did not do complete justice to his admirable article.

November 28. I am, &c., MORELL-MACKENZIE.

EXTENSION OF THE CONTAGIOUS DISEASES ACTS.

LETTER FROM DR. WASHBOURN.

[To the Editor of the Medical Times and Gazette.]

SIR,—The meeting of the Gloucestershire Medical and Surgical Association, specially convened at the Cheltenham Hospital, was, as the report of the Secretary contained in your number of ths 18th inst. shows, so scantily attended, that I thought it desirable, especially upon a subject of such importance to the community, to ascertain, either *vivâ voce* or by letter, the individual opinions of those members who were absent from the meeting, as to whether the provisions of the existing Contagious Diseases Acts should be extended to the sea and inland ports of the United Kingdom.

My inquiries elicited replies from twenty-seven members; of whom twenty are in favour of, and four are opposed, to such extension, the remaining three declining to express an opinion. If to these members be added the names of those who were present at the meeting and voted, the result shows that out of forty-two members, twenty-eight, or two-thirds, are in favour of extension. I am, &c.,

Gloucester, November 29. BUCHANAN WASHBOURN.

SUBSCRIPTIONS TO THE POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

LETTER FROM MR. JAMES MILWARD.

[To the Editor of the Medical Times and Gazette.]

SIR,—Allow me, through the medium of your journal, to beg the members of the Poor-law Medical Officers' Association to review the position of their Society. For several years they have been united in an endeavour to procure from the Legislature certain objects. Their pecuniary outlay has been 5s. a year—not an extravagant sum for anything that is worth having. Their objects are now embodied in a Bill which Mr. Corrance has kindly undertaken to introduce next session, and which has the support of many influential Members of Parliament. But Parliamentary business costs money, and all that is wanted would be in the hands of the Treasurer if the members of the Association would but pay the subscriptions which are due, and which their membership implies a promise to pay. Yet, in spite of several appeals which have been made in the Medical papers, the Society's purse has only received 10s. The members are not asked to spend time over the work. Other men have laboured, and the members will enter into their labours, and it does seem hard that Dr. Rogers, Mr. Corrance, and their co-workers, should spend so much time and trouble over the affairs of the Association, the members of which have everything to gain by the work in which they are engaged, and that they should, moreover, have the anxiety of an empty

purse, when the sinews of war would be amply supplied by the paltry sum of 5s. each, which, I cannot too often repeat, is already actually due.

Mr. Corrance has generously offered to bear a considerable share of the cost; but I say, Sir, it would be a burning disgrace if an association of honourable gentlemen, through neglecting to fulfil their engagements, should throw on the shoulders of an outsider the onus of paying for what they want.

Now that we have almost reached the goal for which we have been straining, it would be ignominious indeed to give up the race. I am, &c.,

Cardiff, November 28. JAMES MILWARD.

A HAT INSTRUMENT-CASE.

LETTER FROM MR. ARTHUR STEDMAN.

[To the Editor of the Medical Times and Gazette.]

SIR,—It may interest your correspondent, Mr. James Wilson, to know that Mr. Hawksley has in hand to perfect for me a small case sufficiently light to be carried, with a stethoscope in the centre, in one's hat without discomfort. I have arranged it to contain a clinical thermometer, a small urinometer, a test-tube, and a tiny spirit-lamp; the test-tube to hold a few capillary tubes containing nitric acid. The stethoscope projects fairly beyond the case at either end. I am, &c.,

Great Bookham, Leatherhead. ARTHUR STEDMAN.

SMOKE NUISANCE.

[To the Editor of the Medical Times and Gazette.]

SIR,—In your last week's impression, referring to the letters which have appeared in the *Times* on "Smoke Drainage," you say, "We should be glad to see the matter taken up warmly in the public journals."

I am satisfied that a careful inquiry into the system of furnace ventilation would go far to solve the problem of how to get rid of the London smoke and, as a corollary, the London fogs.

It seems an Irishism to say that the coldest part of the room is in front of the fire; but we have only to place our hands on a level with the hearth-rug to satisfy ourselves on this point.

It is a common expression with people who crowd round the fire at this time of the year to say, "How impossible it is to get warm!" The fact is, they are scorching the front of the body while the back is being chilled by a draught of cold air coming in from the outside. Those, again, who crowd round the fire, not only shut out the heat from others, and hinder its dispersion, but they impede the current of air going to the fire, and thus diminish the intensity of the glow; so that, in consequence of the faulty construction of our stoves, these people are a nuisance to themselves, and also to their neighbours. A large proportion of the coryzas and influenzas so prevalent at this season of the year are, no doubt, induced by such a faulty system of ventilation. Parents are fond of placing their infants on the hearth-rug, little knowing the danger they incur by the excess of heat on the one side and the blast of cold air on the other.

To avoid this draught, some houses have been constructed, of late years, with a tube passing from a brick ventilator fitted into the outside wall under the floor to the fire-place. This plan has been known to succeed very well and answer admirably in supplying sufficient air for fuel consumption, obviating the alternative of a draught of cold air drawn across the room from under the doorway.

I have long desired to bring before the notice of scientific men a plan of ventilation somewhat after this principle, but combining therewith a means of carrying away the ash and dust of the coal to a receptacle fitted in a convenient situation. The clouds of dust caused by the domestics when sweeping-up the hearth are seen by few at early morning; the nuisance is therefore not recognised. I am confident that our furniture, and especially our books, would suffer less if the necessity of sweeping-up the hearth were abolished.

The plan I have to suggest is, that a tube of a certain diameter be fitted into the brickwork and carried through the house, either parallel with or within the chimney, a communication being established below each grate. This tube could be conducted to a dust-bin either fitted into the front wall of the basement, or in the area, or possibly into an underground sewer.

By this arrangement a perfect system of ventilation is obtained, the draught required for fuel consumption is drawn from the outside, and does not enter the room. All cinders and dust carried down the tube may be removed periodically by scavengers, according to the system now being introduced in the City, and which has been found to work so well in Edinburgh and other large towns. By such an arrangement the coal would be better consumed, and the unconsumed smoke might be diverted into these tubes and thus carried away. I am convinced we should hear less of influenza and sorethroat if some such plan was generally adopted. I am, &c.,

19A, Gt. George-street, S.W., Nov. 29. F. C.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, NOVEMBER 14.

DR. H. A. PITMAN, Vice-President, in the Chair.

MR. ARTHUR E. DURHAM read a paper on

THE OPERATION OF OPENING THE LARYNX BY SECTION OF THE CARTILAGES, ETC., IN ORDER TO FACILITATE THE REMOVAL OF MORBID GROWTHS.

The author related in detail five cases, in each of which this operation had been performed in Guy's Hospital; in three cases by himself, in one by Mr. Bryant, and in one by Mr. Colley. The results in four of these cases had been eminently satisfactory, free respiration and good voice having been regained. The remaining case was still under treatment. Appended to this communication were more or less complete reports of all the cases the author had been able to find on record. These cases were thirty-two in number, and with the five detailed in his communication gave a total of thirty-seven. In nineteen of these the operation might be regarded as having been completely successful, natural respiration and voice (though in some instances not normal in tone) having been restored. In seven partial success was obtained, respiration having been restored, but the voice lost or very seriously impaired. In four cases some temporary relief was obtained. In three the result might be considered negative, neither good nor harm having been done. The reports of at least two were incomplete. In two cases—and two cases only—death resulted. In each of these, however, the immediate cause was blood-poisoning. Metastatic abscesses were found in the lungs in the one case; in the other, erysipelas and gangrene occurred, and broncho-pneumonia and exhaustive fever ensued, and led to the fatal issue. Comparing the results thus stated with those given by Dr. Mackenzie in his "Treatise on Growths in the Larynx," the author pointed out that death could properly be attributed to the operation in two only out of the nine cases enumerated by Mackenzie as having terminated fatally, these two being the same as those already alluded to. With regard to the other seven cases, the author specified each, and showed that in each the result of the operation was favourable, or, at any rate, in no degree mischievous, and certainly not fatal. Some of the difficulties liable to be encountered in the operation were then briefly discussed, and the opinion expressed that such difficulties were really fewer and more easily overcome than appears to be generally supposed. In conclusion, the author pointed out that it was not necessary to institute any comparison between the dangers and difficulties of this operation and those met with in the removal of growths through the mouth by aid of the laryngoscope; nor, indeed, was it at all fair to estimate the comparative merits of the two methods of proceeding by bare numerical statements of the results obtained. If, in any case, removal of the growth by aid of the laryngoscope should appear practicable, the idea of resorting to section of the cartilages could not be entertained until fair trial had been made of the minor operation. In very few, if any, of the cases on record, in which the larynx was opened, would it have been practicable to have removed the growths through the mouth. Indeed, in many instances, numerous abortive attempts through the mouth were made before resort was had to section of the cartilages. With regard to the chances of recurrence, there could be no doubt that the more completely the original growth was removed, the less would be the probability of its reappearance. Neither could there be any doubt that such complete extirpation could be more certainly effected in most cases after section of the

cartilages than by any method practised through the mouth. Dr. Mackenzie's conclusions as to the comparative chances of recurrence, as affected by the method adopted, appeared to the author unfair and likely to mislead. Cases of cancer (a malady very likely to recur) were included in one and excluded from the other of the sets of cases between the results of which a numerical comparison was made.

Mr. Bryant said that he rose to support the operation as the only possible curative means in the class of cases described. When the morbid growths were multiple, tracheotomy could be only a temporary measure, and evulsion through the mouth must be impossible. He enlarged upon the alleged erroneous character of Dr. Morell-Mackenzie's statistics with regard to the fatality of the operation.

Mr. Croft moved that the debate should be adjourned, in order to give Dr. Morell-Mackenzie an opportunity of being present.

Dr. Pitman said it was not the custom of the Society to adjourn a debate on account of the absence of a Fellow who might be interested in it.

Mr. Holthouse related the particulars of a case in which he had performed the operation described.

Mr. Thomas Smith inquired whether the laryngeal cartilages had been united by sutures in the cases described by Mr. Durham. He also called attention to the early age of the patients, and asked whether the disease was more common during childhood than in after-life.

Mr. Durham replied that sutures were used to unite the cartilages, and that early age might be a reason for performing the operation, as it was more difficult to reach laryngeal growths through the mouth in children than in adults. He expressed much regret at Dr. Morell-Mackenzie's absence, and said that, had he been present, he should have joined issue with him on one or two other questions also.

OBSTETRICAL SOCIETY OF LONDON.

Wednesday, November 1.

Dr. Braxton Hicks, F.R.S., President, in the Chair.

The following gentlemen were elected Fellows of the Society:—Eugene Goddard, L.R.C.P., Charles James Harris, M.R.C.S., John Faure Miller (Paris), F. T. Tayler, M.B., and W. Bezly Thorne, L.R.C.P.

Dr. Snow Beck exhibited an Imperfectly Involuted Uterus, and gave a minute account of its microscopical characters, from which he concluded—1. That the essential condition of the organ consisted in the elements of the different tissues retaining a portion of the natural enlargement consequent upon impregnation; but that this enlargement was due more to the increased size and amount of the soft tissue present in the walls of the uterus, as well as at the internal surface, than to the increased size of the contractile fibre cells. 2. That, although the blood-vessels were large and loaded with fluid blood, yet there was not any evidence to show that any morbid process similar to inflammation had at any time been present. 3. That the whole of the bloodvessels, to the minute capillary network at the inner surface, formed one continuous system, though the character of the distribution changed towards the inner surface; and, considering there is no division in the uterine walls to justify the description of an internal mucous membrane, this distribution appears to offer a strong argument against the idea that the internal surface can be the seat of inflammation independent of the other portions. 4. That the pulpy condition of the tissue at the inner surface, with the loaded state of the bloodvessels throughout, appear to afford a probable explanation of the frequent hæmorrhages which attend similar enlargements. 5. That, with regard to any treatment for the removal of this condition, it would appear that this should include topical applications to the whole of the uterine cavities.

Dr. F. R. Hogg exhibited a Malformed Fœtus. (Referred to a committee.)

Dr. Barnes read an abstract of a "Memoir on Osteomalacia," by Dr. Casati, of Milan. This disease is remarkably frequent in some of the rural districts surrounding Milan. During the eight years that the author had acted as assistant to the late Professor Lazzati, sixty-two cases of clearly marked osteomalacia were admitted into the Lying-in Hospital. Almost all the sixty-two women came from that part of Milan known as the Valley of Olona, the same district which also supplies the greatest proportion of cases of pellagra and of petechial typhus (typhoid) to the Milan Hospitals. They all came from wretched villages, where food was scarce, consisting for the most part of maize or rice, often musty. Their houses were ill-ventilated, damp, and built upon clay. The drinking-water was found wanting in saline matter. Twenty-seven of the women were delivered normally after easy labour, four had difficult labour, while thirty-one were delivered artificially, but only two required the Cæsarian section. For the Medical treatment Dr. Casati recommends the use of the biphosphate of lime or of "bone powder" and cod-liver oil, and the substitution of Liebig's bread for bread made of rice and maize.

Dr. Squire did not agree with the author that the pulmonary and bronchial congestions afforded any argument against the use of chloroform, since these depended on the mode of death, and in severe labours the use of chloroform tends to diminish the stress upon both respiration and circulation.

Dr. Rasch read a paper "On a Novel Method of using the Uterine Sound for Redressing a Flexed Uterus." The point upon which he particularly laid stress was, that the part of the instrument inside the uterus should be kept steady in its place, and thus avoid the irritation which resulted from making a large semicircle of motion in the uterine cavity, according to the usual method. The sound introduced into the retroflexed womb, with the point downward and backward, should be first used in that position as a lever to lift up the organ as far as possible. Then, instead of twisting the handle round and making the intra-uterine part swing round the ideal prolongation of the stem, the movement should be reversed, so that the part in the uterus and its ideal prolongation are made the centre of motion, round which the handle and stem sweep.

Dr. Phillips fully appreciated the value of the method described by Dr. Rasch. He would, however, be glad to know the comparative frequency with which it was found necessary to use the sound for redressing the flexed uterus. Doubtless it could not be dispensed with in some cases, but he always attempted to restore a retroflexed uterus without the introduction of any instrument, and he believed that in a large proportion of cases this could be effected.

Dr. Gustavus Murray could hardly admit that the method described by Dr. Rasch was new in principle. He had employed it for some years. In severe cases of flexion he was in the habit of introducing the sound in an easy manner by passing it first in the opposite direction to the displacement, until it reached the flexed point, and then, secondly, by twisting the curve of the instrument in the course the fallen body of the uterus had taken.

Dr. Aveling and Dr. Edis also said that they had practised the method. Dr. Edis said that Spiegelberg had recently called special attention to the danger resulting from injudicious use of the sound, and any method which lessened the risk from its use was worth considering.

Dr. Conrad, of Pesth, read a paper "On Prolapse of the Female Genitalia," in which he maintained that prolapse of the uterus is for the most part a secondary affection, a primary prolapse being very rare. Prolapse of the vagina is the most important part in any descent of the female genitals, and uterine prolapse is but a sequel of this, the prolapsed vaginal walls pulling down the uterus. Of the different forms of vaginal prolapse, that of the anterior wall is the most common, though frequently associated with prolapse of the posterior wall. A descent of the latter by itself is, however, rare. Should there be a considerable elongation of the cervix, we can certainly conclude that the vaginal prolapse was primary. The elongation of the vaginal portion of the cervix is of no diagnostic value, and is simply the result of mechanical irritation. Dr. Conrad believes it may be justly maintained that elongation of the supra-vaginal portion of the cervix and hypertrophy of the infra-vaginal portions are but secondary affections. The vagina alone is sometimes prolapsed without any descent of the uterus. The author then discussed the most important predisposing causes of prolapse—gestation, parturition, senile atrophy, etc. Prolapse in young girls occurs suddenly from a violent shock through *contre-coup*. The replacement of a complete prolapsus of long standing should always be preceded by an emptying of the bladder and rectum. The palliative treatment is best conducted by pessaries, of which the best is Meyer's ring, or Hodge's modification of it. For the radical cure, Dr. Conrad prefers Professor Spiegelberg's operation to any other: it consists of a combination of three operations. The vaginal portion of the cervix uteri, if greatly hypertrophied, is first removed by the galvanic wire. If the posterior wall of the vagina has become prolapsed with the uterus, he performs Dieffenbach's operation, by removing a

triangular piece of the mucous membrane of the posterior wall, having its apex to the os uteri, and for its base either the pared surfaces of the rent perineum (where this has been ruptured) to form a new perineum, or (where this has not happened) the labia minora, so as to contract the orifice of the vagina, and aid in supporting the posterior vaginal wall. Spiegelberg then proceeds to unite the upper portion of the posterior vaginal wall with the inferior anterior, according to Simon's operation.

Dr. Edis thought the affection, on account of its great frequency, was too little studied. He had seen several cases where a pessary had been introduced with the intention of keeping up an elongated cervix.

Dr. Phillips agreed with the author of the paper that certain cases of prolapsus uteri were doubtless secondary to vaginal prolapse—cases in which the uterus was small, and which had been called instances of passive prolapse—but he believed that this class was a much smaller one than that which included those cases where an increased weight of the uterus itself was the primary cause of its descent. This was associated with relaxation of the surrounding areolar tissue, and the heavy uterus was then sufficient to overcome the support which the vagina in the healthy state gave it, by means of the strong bands of so-called areolar tissue inserted into its walls. The arguments brought forward by M. Hugnier seemed to him conclusive against the view advocated by Dr. Conrad, that elongation of the supra-vaginal portion was a secondary affection, dependent on the traction made by the prolapsed vaginal walls. He doubted whether any shock would produce a displacement of the uterus in young women, if the organ was not increased in weight, and there existed no impairment of the surrounding structures.

Dr. Heywood Smith said he agreed with what had just been said, that the chief cause of prolapsus uteri was an increased weight of the organ, producing relaxation of its supports. Another cause, however, was not generally recognised—viz., that, as age advanced, the lumbo-sacral curve becoming more or less obliterated—the plane of the pelvis thereby becoming more horizontal—the natural support that the normal position of the pelvis, together with the abdominal walls, gave to the pelvic viscera, was removed, and they tended to prolapse from gravitation. He suggested that the word "procidentia" should be held to signify the falling or tendency to fall, and that "prolapsus," being the past participle, and signifying the complete act, should be used only to indicate cases where the uterus was extruded from the vulva.

Dr. Routh believed that prolapsus uteri without elongation of the cervix was very rare. His own experience led him to agree with the conclusions arrived at by Dr. Conrad. Looking back at the operative measures which had been adopted for the relief of prolapsus, there were three chief methods which had been practised. First, the perineal operation, by means of which some cases were radically cured; in others, however, after some months, the uterus dilated the external opening, and appeared external to the vulva. Secondly came Emmet's operation, or a modification of it, as first practised by Dr. Rogers. This consisted in removing a very large triangular piece of mucous membrane (the apex being towards the cervix uteri) from the anterior wall, sometimes also from the posterior wall of the vagina, and bringing the edges together by sutures. This operation also succeeded in some cases, though not in all. Thirdly came the plan of removing a portion of the cervix by the écraseur, or actual cautery. This set up absorptive action in the uterus, and the elongation in many cases gradually but entirely disappeared. Dr. Routh thought that a cure, to be certain and radical, should comprise the three operations conjointly—or, at any rate, the last and one of the other two. He believed that any cause which produced a friction of the vagina on the cervix would produce enlargement of the cervix.

Dr. Barnes said that for some years we had all been pursuing a tentative course to find out the best mode of treating these affections. As to the mode of production of hypertrophy, he was scarcely prepared to agree with Spiegelberg and Dr. Conrad. The traction of the vagina might come in as a factor in the course of the disease; but the initiatory stage was, he believed, congestion and increased weight of the uterus. These cases were rare in women who had not borne children. They almost all began after childbearing. The passage of the child through the cervix uteri was a violent process—the cervix was forcibly stretched open; the mucous membrane was carried down before the head; the tissues of the cervix were bruised; small vessels were torn. Then, from getting about too soon, and other causes, imperfect involution resulted; the lower part of the uterus especially was increased in weight and bulk; whilst the surrounding cellular tissue, having been gradually stretched and weakened, was less able to support the uterus—hence continued congestion and a perverted nutrition of the cervix. Small polypi on the edge of the os frequently complicated hypertrophy. Their structure was identical with that of the cervix from which they sprang. Dr. Barnes could not help thinking that simple prolapsus was far more frequent than Dr. Routh's observations would indicate. He would, in conclusion, like to know how far the experience of others agreed with his own as to the usual extent of elongation being exactly five inches. He had found the cases in which this length was exceeded very rare.

Mr. Spencer Wells differed from Dr. Barnes in the opinion that restoration of the perineum was "beginning at the wrong end" in the treatment of prolapsus of the uterus and vagina. It was quite true that prolapse of the anterior wall of the vagina was the first step in the progress downwards; but a sound perineum was the chief opponent to this prolapse. It would be absurd to expect the perineal operation to cure an elongated cervix; but in cases of ordinary prolapse he could say that the perineal operation often effected permanent cure. He had never seen an elongated cervix grow again after the original portion had been removed.

The President said that when the uterus, from whatever cause, descended, it, by its pressure on the vagina, acted like a foreign body, and set up reflex irritation and tenesmus, which, acting constantly, coupled with defæcation and the pressure of the bladder, would tend to extrude and elongate the cervix. It would clearly be better, before attempting any plastic operations, to endeavour to gain shortening of the uterine supports, either by pessaries or recumbency.

EPIDEMIOLOGICAL SOCIETY.

Wednesday, November 8.

Robert Lawson, Inspector-General of Hospitals, President, in the Chair.

The session was opened with an address from the President, "On the Chief Epidemics of the last Three Years." He indicated the necessity of a close observation, not of one, but of every epidemic, over the greatest possible surface, and for a series of years, to afford trustworthy data for the determination of the general laws which govern the progress of this class of diseases in their diffusion over the earth, and illustrated the value of such inquiries by the ascertained facts with regard to small-pox, scarlatina, diphtheria, fever, and cholera, not only in this country, but on the Continent and in America. An example from the last two diseases may be given. In 1868 there was much fever in Asia Minor, and along the shores of the Mediterranean as far as Spain; and in 1869 the disease, in various forms, was very prevalent through Europe, from Madrid to St. Petersburg, while it remained very active at several points along the north coast of the Mediterranean. Fever increased at Berlin in 1870, and at Vienna a pretty severe epidemic of typhus commenced at the end of that year, and continued during the first half of 1871. It will be remembered that malignant cholera made its appearance at Kiev, in Russia, in the summer of 1869, and towards the end of the year spread to some extent through the basin of the Dneiper, but acquired no great force until 1870, when it involved the whole country, from the Black Sea to St. Petersburg, but was not met with in Europe, as an epidemic, west of Russia. In 1871 cholera continued at St. Petersburg, and extended to Archangel, to Helsingfors, north of the Gulf of Finland, and along the country to the south of that and the Baltic, as far as Hamburg and Altona. There had been a severe outbreak in Persia, to the south and east of the Caspian, in the autumn of 1868, which continued into 1869; and in the course of that year this was to have been expected in Southern Russia or the corresponding latitude in Asia. It actually appeared at Kiev, some 300 miles from the nearest sea, and 1500 from the nearest point where the disease was known to exist at the time, while every attempt to trace its origin to importation failed. It has been found, from an extensive examination of facts, that cholera as an epidemic will not penetrate a district occupied by an epidemic of fever (enteric excepted) until that subside, when its place may be taken by the other. The fever in Asia Minor in 1868, and in Europe in 1869-70-71 seems to have limited the progress of cholera westward in these years, until it crept along the south shore of the Baltic a few months ago.

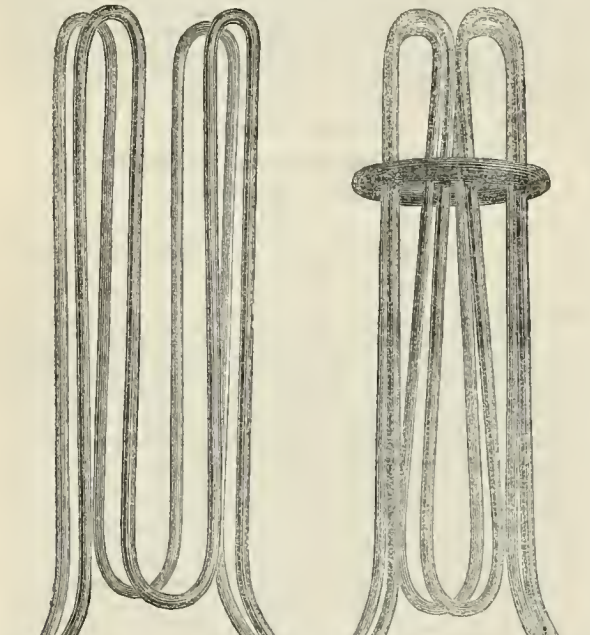
It is worthy of observation that the relative distribution of cholera and fever during the first approach of the former to Western Europe in 1828-29-30-31 presents year by year an almost exact parallel to that in the corresponding period 1868-69-70-71. In 1831 a fresh wave came from the south, which affected Smyrna and Constantinople, and extended into Hungary, and was experienced in this country in 1832; in 1871 a similar wave appeared in Southern Russia, and has been felt at Smyrna and Constantinople, and has given slight indications at Vienna. It remains to be seen whether the parallel will be completed by its becoming epidemic in this country in 1872.

NEW INVENTIONS.

BLACKBEE'S RESILIENT SKELETON SPECULUM.

(*Maw, Son, and Thompson, Aldersgate-street*).

The threefold name of this instrument correctly indicates its origin and peculiarities. It is the invention of Mr. Blackbee, a member of our Profession. It is like a skeleton, inasmuch as it is as much divested of needless incumbrances as a skeleton is of flesh; and it is resilient, inasmuch as the elasticity of a simple skeleton-wire structure takes the place of more complicated devices. The subjoined cuts show it to be composed of



a loop of wire twice folded. The uterine end can be compressed, so as to secure easy introduction, and by pressure on the lateral loops at the opposite end the uterine end can be expanded. The material is german-silver strongly gilt. There is no need of valves, for every part of the vagina is freely exposed, so that examination and the application of remedies are alike easy.

OBITUARY.

JOHN STEGGALL, M.D.

There are many metropolitan and provincial members of the Profession who will regret to hear of the death of Dr. Steggall, who expired on the 21st ult., at his residence, in Southampton-street, Bloomsbury-square. Dr. Steggall, who was the third son of the Rev. W. Steggall, M.A., rector of Hesset, Suffolk, at which place he was born, received his early education at Bury St. Edmunds, under the Rev. Dr. Malkin, having as one of his schoolfellows young Blomfield, afterwards Bishop of London. On the completion of his preliminary studies, he entered the London Hospital, and soon became the especial favourite of Sir William Blizard and that veteran in Medicine (happily still surviving) Dr. Billing. Having completed his Professional studies, he offered himself for examination, and was admitted a Member of the Royal College of Surgeons on August 5, 1825, soon after which he went abroad, and, visiting Bologna and Pisa, he graduated there the following year. Returning to England, he became a Licentiate of the Society of Apothecaries in 1827, and entered on the practice of his Profession. In 1836 he was admitted a Member of the Royal College of Physicians, and was elected Physician to the Metropolitan Free Hospital. But the practice of Medicine had few attractions for him; he preferred that of teaching, both orally and by such works as "Manuals for the College of Surgeons and Apothecaries' Hall," "Elements of Botany," "Celsus, with Translation," "Gregory's Conspectus, with Translation," "Essay on Poisons," etc.; and, on the establishment of the Pharmaceutical Society, with the subsequent examinations at that institution, he published "First Lines for Chemists and Druggists." In his hours of relaxation—and they were few and far between—he amused himself with his pencil, being an excellent artist, and took some first-rate portraits of some of his favourite pupils, as the late Albert Smith, who often spoke affectionately of "dear old Steggall" as having saved him so much Professional drudgery. Another portrait, in oil, of a pupil who became notorious as an atrocious murderer—William Palmer—was a most life-like portrait of the criminal; and it deserves to be mentioned that, after the trial and execution, when sorely tempted to dispose of it for public exhibition to Madame Tussaud, he strenuously refused, although tempting terms were offered. Dr. Steggall, who was an excellent scholar, learned in the living and dead langnages, was twice married. On the first occasion, being then a remarkably handsome man, it is not surprising that he won the affections of a lady of brilliant beauty—a Donna Gethruda Elbina Giuseppina (Bonetti). It was a most happy marriage, and nine children were the fruit of this union, seven of whom survive—viz., four sons and three daughters. The eldest, Mr. John Steggall, M.R.C.S. and L.S.A., obtained the gold medal of the Apothecaries' Society. The remains of Dr. Steggall were interred in the Woking Necropolis.

DE LA GARDE, OF EXETER.

Conspicuous among the losses which the Profession has to deplore during the past month must stand the name of "De la Garde, of Exeter," who died at his residence, Southernhay, on the 17th ult., in his 74th year. He was the son of a clergyman at Jersey, and, no doubt, not very remotely, of French extraction. He studied Medicine and Surgery at St. Bartholomew's Hospital between 1817-18 to 1819 (when he obtained the College of Surgeons' diploma) with such success that his name is preserved at that School with the utmost respect, the present Treasurer observing very recently to the writer of these lines—"There is no name which we cherish with greater pride than that of De la Garde." With St. Bartholomew's he was always pleased to identify himself, and with it he kept up to the last friendly and unbroken relations. To it he was appointed House-Surgeon under Mr. Vincent, at a House Committee dated September 25, 1818, the other Surgeons being Abernethy and Sir L. Harvey. He became soon after connected with the Devon and Exeter Hospital—so long the scene of his labours, and of which he died Senior Surgeon—as well as of the West of England Eye Infirmary. Though an excellent Surgeon, original and thoughtful (as a reference to a list of his published works will testify), he seemed to have a special preference for Ophthalmic Surgery, and after the retirement of Barnes, he became the most popular and successful operator in the West of England. He married a daughter of Dr. Lemprière, the well-known author, by whom he had three daughters and one son, who, unhappily, as well as one of the daughters, deceased before Mr. De la Garde, to his infinite grief. Two points are especially to be noted in his character—the absorbing interest he always manifested in the Profession he followed, and his peculiar single-heartedness in respect to the treatment of those under his care. Equally remarkable were the quaintness and force which tinctured his conversation and writings, which, without approaching eccentricity, invested them with a raciness peculiarly their own, and preserved them from everything trivial or commonplace. It would be invidious to say that with him ends a school of Surgeons which, comprising such men as Barnes and James, rendered Exeter famous, as did in olden times the name of William Hey the town of Leeds—no doubt men equally able and equally

zealous are to be found there and elsewhere, upon whose shoulders the mantle of De la Garde has fallen; but if some points of his character be considered, it will be admitted that we shall not easily "look upon his like again." It is to such men as he that a profession is indebted for position and dignity, while the interests of the community receive such distinct benefit; and when this is said, it must not be forgotten that the late Philip Chilwell De la Garde was a man of the most unblemished honour, the most spotless integrity—truly "De la Garde sans peur et sans réproche"—and that he, and such as he, are for ever to be found in the van of humanity and civilisation.

DR. HENRY GREENWOOD

Was born on August 6, 1793, at Calne, in Wiltshire, of which place his father was vicar. Having been educated at Calne, and afterwards at Salisbury, he was apprenticed, at the proper age, to Mr. Corfe, a gentleman at that time in extensive practice in the town of Southampton. In due time he came to London as student at the united Hospitals of Guy's and St. Thomas's. He became a Member of the Royal College of Surgeons, England, in 1814, and soon afterwards entered into partnership with Dr. Brickenden, who was then doing a large business as a general Practitioner in Horselydown and the neighbourhood. On Dr. Brickenden's retirement he succeeded to the practice, and was for many years one of the best known Medical men along the south side of the river. In the year 1842 he took the degree of M.D. at the University of St. Andrews; in 1852 he was made a Fellow of the Royal College of Surgeons, and in 1859 a Member of the Royal College of Physicians, London. But by this time incessant labour had worn out a constitution originally feeble, and he was incapacitated for practising as a Physician by increasing bodily infirmity. After some years of weakness and suffering, he expired at Blackheath on November 22, 1871. Dr. Greenwood was one of the original members of the Hunterian Society, in the discussions of which he for many years took an active part, and of which he was elected President for the year 1851. It resulted from the position of his practice, along the water's-edge on the south side of the river, that he had attended more cases of cholera than perhaps any other man living. This circumstance led him to embody the results of his experience in a short treatise on the nature and treatment of that disease, for distribution among his private friends, and this was his only written Medical work.

MEDICAL NEWS.

University of London.—The following is a list of the candidates who have passed the recent Honours Examinations:—

Second M.B. Examination.—Examination for Honours.

MEDICINE.

First Class.

Allchin, William Henry (Scholarship and Gold Medal), University College.
Southee, Henry Edward (Gold Medal), Guy's Hospital.

Second Class.

Lyell, Robert Wishart, King's College.
Elkington, Ernest Alfred, General Hospital, Birmingham.

Third Class.

Carr, William Ward, University College. } Equal.
Carter, Alfred Henry, University College. } Equal.
Lucas, Richard Clement, Guy's Hospital. } Equal.

OBSTETRIC MEDICINE.

First Class.

Lucas, Richard Clement (Gold Medal), Guy's Hospital.
Southee, Henry Edward, Guy's Hospital.

Second Class.

Humphreys, John Henry, General Hospital, Birmingham, and University.
Lyell, Robert Wishart, King's College.

Third Class.

Carter, Alfred Henry, University College.
Elkington, Ernest Alfred, General Hospital, Birmingham.
Allchin, William Henry, University College.

FORENSIC MEDICINE.

First Class.

Elkington, Ernest Alfred (Gold Medal), General Hospital, Birmingham.

Third Class.

Lyell, Robert Wishart, King's College.
Southee, Henry Edward, Guy's Hospital.

Apothecaries' Hall.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, November 23, 1871:—

Elkinton, Ernest Alfred, Birmingham.
Maybury, William Augustus, Frimley, Surrey.

As an Assistant in compounding and dispensing medicines—

Hyne, Harry, South Bank, St. John's-wood.

The following gentlemen also on the same day passed their first Professional examination:—

Donaldson, Henry, Charing-cross Hospital.
Evans, Thomas, Guy's Hospital.
Prothero, David George, Middlesex Hospital.
Utting, James, Guy's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Bentley, Arthur J. M., M.B., C.M. Edin., M.R.C.S.E.—Resident Physician, Clinical Wards, University of Edinburgh.

Bishop, John, M.B., L.R.C.P.E., etc.—Resident Physician at the Royal Infirmary, Edinburgh, under Dr. T. Grainger Stewart.

Havard, David, L.R.C.P. of London, M.R.C.S., L.M., and L.S.A.—Medical Officer for District No. 3 of the Cardigan Union.

Law, W. T., M.R.C.S.E., L.S.A.—Resident Physician at the Royal Infirmary, Edinburgh, under Dr. George William Balfour.

Linesay, William, M.B., C.M.—Resident Physician at the Royal Infirmary, Edinburgh, under Dr. Rutherford Haldane.

Love, A.E.B., M.R.C.S.E.—Medical Registrar to the Evelina Hospital for Sick Children, Southwark-bridge-road, *vice* David Duke, resigned.

MacKellar, John, M.D., L.F.P.S.—Medical Officer for the Parish of North Uist, Inverness-shire.

Martin, Henry C., M.B., etc.—Resident-Surgeon, Royal Infirmary, Edinburgh, under Mr. Thomas Annandale.

Perkins, Henry Allane, M.B., C.M.—Resident Physician, Clinical Wards, University of Edinburgh.

Rutherford, Thomas, M.B., C.M.—Resident-Surgeon, Royal Infirmary, Edinburgh, under Dr. Patrick H. Watson.

Smith, James, M.D.—Medical Officer for the Western District of the Parish of Cadder, Lanarkshire.

Sutherland, Jas., M.B., M.C.—Junior Surgeon to the Ardwick and Ancoats Dispensary.

Taylor, David Thorburn, M.B., C.M., M.A.—Resident Medical Officer in the small-pox and fever wards, Royal Infirmary, Edinburgh, under Dr. Claud Muirhead. Also in the Lock Ward, under Dr. Duncan.

Thornton, John Knowsley, M.B., C.M.—Resident Surgeon at the Royal Infirmary, Edinburgh, under Professor Lister.

Thorowgood, John C., M.D. Lond.—Lecturer on Materia Medica at the Middlesex Hospital, *vice* Dr. Brunton, resigned.

Wacuba, Frank, M.R.C.S.E. and L.S.A.—House-Surgeon to the Kent and Canterbury Hospital.

Walsh, Denis, L.C.P.I., L.M., L.R.C.P.E., L.R.C.S.E.—Assistant Medical Officer for the Withington Workhouse of the Chorlton Union, *vice* Mr. Henry Webster.

MILITARY APPOINTMENTS.

Royal Artillery.—Assistant-Surgeon John Langdon, from the 10th Foot, to be Assistant-Surgeon, *vice* Edward Joseph Crane, promoted; Staff Assistant-Surgeon Edward Chandler, to be Assistant-Surgeon, *vice* Frederick Ffolliott, placed on half-pay.

37th Foot.—Staff Assistant-Surgeon John Alexander McCracken, M.D., to be Assistant-Surgeon, *vice* William Samuel Chapman, promoted.

105th Foot.—Staff Assistant-Surgeon John Fitzmaurice, to be Assistant-Surgeon, *vice* John Langdon, appointed to the Royal Artillery.

Medical Department.—Staff Surgeon-Major Vere Webb, to be Deputy Inspector-General of Hospitals, *vice* George Cuninghame Meikleham, M.D., who retires upon half-pay; Staff Surgeon-Major David Reid Mackinnon, to be Deputy Inspector-General of Hospitals, *vice* John Summers, M.D., who retires upon half-pay; Assistant-Surgeon Edward Joseph Crane, from Royal Artillery, to be Staff Surgeon, *vice* Staff Surgeon-Major Vere Webb, promoted; Assistant-Surgeon William Samuel Chapman, from 37th Foot, to be Staff Surgeon, *vice* Staff Surgeon-Major David Reid Mackinnon, promoted; Staff Assistant-Surgeon George Herbert Clifton, M.D., from half-pay, to be Staff Assistant-Surgeon, *vice* John Fitzmaurice, appointed to 105th Foot. The undermentioned officers, who retire upon half-pay, to have the honorary rank of Inspector-General of Hospitals:—Deputy Inspector-General of Hospitals John Summers, M.D.; and George Cuninghame Meikleham, M.D.

BIRTHS.

Batt.—On November 27, at 215, Camden-road, N.W., the wife of Edward Batt, M.D., of a daughter.

Debenham.—On November 28, at Heath House, Stepney, the wife of Robert Debenham, M.R.C.S., of a son.

Dukes.—On November 28, at Horton-crescent, Rugby, the wife of Clement Dukes, M.B., B.S. Lond., of a daughter.

Eddowes.—On November 22, at Castle-street, Shrewsbury, the wife of William Eddowes, Surgeon, of a daughter.

Kavanagh.—On November 22, at Ierne House, Wickham-road, the wife of P. Kavanagh, M.D., of a son.

Miller.—On November 15, at Brafield, Church-road, Upper Norwood, the wife of R. M. Miller, M.D., of a son.

Nash.—On November 24, at Royston Lodge, Ladbroke-grove, the wife of Edmund Nash, M.D., of a daughter.

Roche.—On November 21, at 32, Rectory-place, Woolwich, the wife of Wm. S. Roche, M.B., B.A., of a daughter.

Spencer.—On November 23, at 47, High-street, Oxford, the wife of Henry B. Spencer, M.D., of a daughter.

Stillwell.—On November 25, at Springcroft, Beckenham, Kent, the wife of R. R. Stillwell, M.D., of a daughter.

MARRIAGES.

CAVAGNARI—GRAVES.—On November 23, at Derryloran Church, Cookstown, Pierre Louis Napoleon Cavagnari, Captain Bengal Staff Corps, to Emma, second daughter of Henry Graves, M.D., of Cookstown, County Tyrone.

CAMPBELL—RIGBY.—On the 28th inst., at St. Paul's Presbyterian Church, Westbourne-grove, London, Peter Campbell, M.D., Bridge of Allan, Scotland, to Phœbe, daughter of the late P. Rainford Rigby, Liverpool.

CUMMING—COBAN.—On November 21, at Abercorn Villa, Joppa, Portobello, Captain G. P. Cumming, Bengal Staff Corps (retired), to Jeannie Marshall, youngest surviving daughter of the late George Cobban, M.D., of Garmouth, Morayshire.

MILLS—MERRYWEATHER.—On November 23, at St. Stephen's Church, Clapham-park, Samuel Mills, M.R.C.S., of Southampton-street, Covent-garden, to Mary Compton, eldest daughter of M. Merryweather, Esq., Clapham House, Clapham-common.

STEAD—READ.—On November 7, at Savannah, Georgia, U.S., Walter Collins Stead, of Surrey, England, to Lizzie, daughter of Dr. James B. Read, of Savannah.

TEMPLE—THOMSON.—On September 12, at the British Consulate, Santos, Brazil, Thomas Cameron Temple, M.R.C.S., etc., to Helen Jane, eldest daughter of the late William Thomson, Esq., of Kennington, and step-daughter of the Rev. R. W. Dixon, M.A., Minor Canon of Carlisle Cathedral.

YORKE—NEWINGTON.—On November 24, at Charlton, Kent, Frederick Augustus Yorke, eldest son of Major-General Yorke, Royal Engineers, to Lucy Elisabeth Haynes Newington, eldest daughter of the late Charles Edward Haynes Newington, M.D., of The Vineyard, Ticehurst, Sussex.

DEATHS.

BARRY, THOMAS STOWELL, late Staff Surgeon in her Majesty's Army, and eldest son of St. George Ryder Barry, Esq., late of the 12th Royal Lancers, at Charles-street, Cavendish-square, on November 21, aged 36.

COLSON, PLEASANCE, relict of the late P. H. S. Colson, M.D., of Hackney at 19, Cavendish-street, Ramsgate, on November 20, in her 73rd year.

DAVIS, CRESSWELL, M.R.C.S., at 9, Onslow-gardens, South Kensington, after a short illness, on November 26.

DICKEN, PUREFOY HUDDLESTON, M.R.C.S., Scholar of St. Bartholomew's Hospital, at Norton, Suffolk, on November 24, aged 21.

FREEMAN, MATILDA ANNE, the wife of Thomas Anthony Freeman, M.R.C.S.E., at Bracknell Lodge, Winchfield, Hants, on November 22.

GREENWOOD, HENRY, M.D., at his residence, Talbot-place, Blackheath, on November 22, in the 79th year of his age.

HALLEY, KATRINE HAY, the dearly-loved second daughter of Alexander Halley, M.D., F.G.S., 16, Harley-street, Cavendish-square, at Seaton, South Devon, on November 28, aged 20.

KIERNANDER.—At Asseerghur, India, the wife of William Coleridge, Kiernander, Garrison Surgeon, on October 30, aged 27.

NAPPER, T., Surgeon, at Ockley, Dorking, on November 24, aged 61.

STEGGALL, JOHN, M.D., at 2, Southampton-street, Bloomsbury, on November 21.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—House-Surgeon. The gentleman appointed must be a Member of one of the Colleges of Surgeons of the United Kingdom. Applications and testimonials to the Secretary, on or before December 4. Election on the 12th.

BLYTHING UNION.—Medical Officer for the Wrentham District. Candidates are required to possess the qualifications prescribed by the General Orders of the Local Government Board, and to be registered. Applications and testimonials to Mr. C. White, Clerk, on or before December 9. Election on the 11th.

BRADFORD FEVER HOSPITAL.—Resident Medical Superintendent. Gentlemen applying for this appointment must be duly qualified Medical Practitioners. Applications and testimonials to Mr. C. Woodcock, on or before December 11.

CARNARVONSHIRE AND ANGLESEY INFIRMARY.—House-Surgeon. Must be a registered Medical Practitioner. Applications and testimonials to the Secretary, Infirmary, Bangor, on or before January 2, 1872.

CENTRAL LONDON OPHTHALMIC HOSPITAL, GRAY'S-INN-ROAD, W.C.—Assistant-Surgeon. Must be F. or M.R.C.S.E., not engaged in the practice of Midwifery or Pharmacy. Applications and testimonials to the Secretary, on or before December 2.

DENTAL HOSPITAL, 32, SOHO-SQUARE.—Lecturer on Dental Surgery and Pathology. Applications and testimonials to the Honorary Secretary, on or before December 12.

EARLSWOOD ASYLUM.—Assistant Medical Officer. Must be duly qualified and registered. Applications and testimonials to the Secretary, on or before December 18.

FARRINGDON DISPENSARY, BARTLETT'S-BUILDINGS, HOLBORN, E.C.—Resident Surgeon. Medical and Surgical qualifications required. Applications and testimonials to Mr. S. Green, on or before December 4.

GREAT NORTHERN HOSPITAL.—Surgeon. Must be a Fellow of one of the Colleges of Surgeons. Applications and testimonials to the Secretary, on or before December 7.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, BROMPTON, S.W.—Resident Clinical Assistants. Candidates must have some Medical qualification. Applications and testimonials to the Hon. Sec., on or before December 2.

HOSPITAL FOR SICK CHILDREN, 29, GREAT ORMOND-STREET, W.C.—House-Surgeon. The gentleman appointed must possess some legal qualification to practise. Applications and testimonials to the Secretary, on or before December 12. Election on the 13th; the duties to commence on the 18th.

INFIRMARY FOR CONSUMPTION AND DISEASES OF THE CHEST.—Visiting Physician. Applications and testimonials to Mr. F. Baily, 27, Margaret-street, Cavendish-square, W.

KILBURN, MAIDA-VALE, AND ST. JOHN'S-WOOD GENERAL DISPENSARY, 13, KILBURN-PARK-ROAD.—Resident Medical Officer. A qualification to practice is required. Applications and testimonials to the Secretary, on or before December 13.

LIVERPOOL ROYAL INFIRMARY SCHOOL OF MEDICINE.—The Chair of Ophthalmology is vacant. Applications to the Registrar, on or before December 3.

LIVERPOOL SOUTHERN HOSPITAL.—Senior House-Surgeon. Must have Medical and Surgical qualifications. Applications and testimonials to Mr. James Houghton, Treasurer, on or before December 13.

METROPOLITAN FREE HOSPITAL, DEVONSHIRE-SQUARE, CITY, E.C.—Honorary Surgeon. Must be F.R.C.S., or pledged to become such within twelve months. Applications and testimonials to Mr. G. Croxton, Secretary, on or before December 23.

NORTH STAFFORDSHIRE INFIRMARY, HARTSHILL, STOKE-ON-TRENT.—House-Physician. Election on December 28. Further particulars in our next.

ST. MARY'S HOSPITAL AND DISPENSARY FOR WOMEN AND CHILDREN, QUAY-STREET, MANCHESTER.—Medical Officer for Out-patients. Must have Medical and Surgical qualifications. Applications and testimonials to Mr. J. Barber, on or before December 2.

SEAMEN'S HOSPITAL (LATE DREADNOUGHT, GREENWICH).—House-Physician. Candidates must possess at least one qualification. Applications and testimonials to Mr. Kemball Cook, House-Governor and Secretary, on or before December 12.

SUSSEX COUNTY HOSPITAL, BRIGHTON.—Surgeon. Must be M.R.C.S.E. Edin. or Dub. The office of Assistant-Surgeon is also vacant; the qualifications required are the same as for the appointment of Surgeon. Applications and testimonials to Mr. A. Vesey, on or before December 6.

UNIVERSITY COLLEGE HOSPITAL.—Assistant Obstetric Physician. Applications to Mr. John Robson, B.A., on or before December 18.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1861.

RESIGNATIONS.

Blything Union.—Mr. A. H. Robinson has resigned the First District; area 12,181; population 2850; salary £54 per annum.

Nuneaton Union.—The Nuneaton District is vacant; area 7520; population 7845; salary £55 per annum.

Toxteth-park Township.—Mr. T. F. Morrish has resigned the Second District; salary £250 per annum.

APPOINTMENTS.

Ashton-under-Lyne Union.—Alex. Hamilton, L.R.C.P. Edin., L.R.C.S. Edin., to the Tenth District.

Bishops Stortford Union.—George Covey, M.R.C.S., L.S.A., to the Braughing District.

Bodmin Union.—Bartholomew G. Derry, M.R.C.S.E., L.S.A., to the Third District and the Workhouse.

Dorchester Union.—Alfred Emson, M.R.C.S.E., L.S.A., to the First District and the Workhouse.

Dudley Union.—Matthew Septimus Allen, M.R.C.S.E., L.S.A., to the Dudley North District.

Hackney Union.—Charles H. Welch, F.R.C.S. Edin., L.F.P. & S. Glasg., L.M., L.S.A., to the Sixth District. Robert H. Smith, M.R.C.S.E., L.S.A., B.A., to the Eighth District.

Monmouth Union.—George Allen Norman, M.B. Oxon., L.R.C.P. Edin., L.R.C.S. Edin., to the Rockfield District.

Portsea Island Union.—Robert Gilmour, M.R.C.S.E., L.M. Glasg., to the Landport District.

Weymouth Union.—Henry Nathan, M.R.C.S.E., L.S.A., to the Melcombe Regis District.

DR. THOMAS NELSON has been appointed Deputy Inspector-General of Haslar Hospital.

THE WORKS OF SIR J. Y. SIMPSON, BART.—Messrs. Black expect to have volume iii. of "Diseases of Women" ready early in January, 1872.

ALEXANDER SMITH, M.D., late of the Bengal Military and Civil Service, died on the 16th of November, at Gothic House, Herne Bay, aged 67.

THE new wing of the Stockport Infirmary, expressly built for infectious and contagious diseases, has just been opened.

THE office-bearers of the Medico-Chirurgical Society, Aberdeen, elected last week are—*President:* J. Corbet, Surgeon. *Secretary:* Dr. Beveridge. *Librarian:* W. Fraser, Surgeon. *Curator of Museum:* R. Smith, Surgeon. *Council:* Dr. Jamieson, Dr. Will, Dr. J. W. F. Smith, Dr. A. Fraser, Dr. G. G. Brown.

THE SECRETARY OF STATE FOR INDIA IN COUNCIL has ordered twenty-five copies of Dr. Porter Smith's work on "Chinese Materia Medica and Natural History" for distribution amongst the libraries of the Medical colleges and public institutions of India.

WE remind our readers that the anniversary session of the St. Andrews Medical Graduates' Association will be held at the Freemasons' Tavern, Great Queen-street, Lincoln's-inn-fields, on December 1 and 2. On Friday, the 1st, at 8 p.m., Dr. Swete will introduce a discussion "On Habitual Drunkenness and its Treatment, Medical and Legislative." On Saturday, the 2nd, at 5 p.m., the President, Dr. Day, of Stafford, will deliver the anniversary address, "The Historical Steps of Modern Medicine."

Queen's University in Ireland.—On November 22 the following were elected by the Senate as Examiners for the year 1872-73:—*Medicine*—Professor Colahan, M.D.; *Surgery*—John K. Barton, M.D.; *Midwifery*—T. More Madden, M.D.; *Materia Medica*—Thomas Wrigley Grimshaw, M.D.; *Medical Jurisprudence*—Edmund W. Davy, M.D.

Royal Medical Society of Edinburgh.—The following gentlemen have been elected Presidents of this Society for the current year:—E. Willis Way, M.B., etc.; Lewis Shapter, B.A. Cantab.; Henry C. Martin, M.B., etc.; Arthur J. M. Bentley, M.B., etc.

Edinburgh Obstetrical Society.—The following office-bearers were elected on November 22:—*President:* Dr. L. Ramsay Thomson, of Dalkeith. *Vice-Presidents:* Professor Simpson, Dr. J. Matthews Duncan. *Treasurer:* Dr. James Young. *Secretaries:* Dr. R. Peel Ritchie, Dr. J. Andrew. *Council:* Dr. A. Keiller, G. Stevenson Smith, Dr. T. H. Pattison.

The Charity Organisation Society.—Mr. W. H. Smith, M.P., has consented to take the chair at the conference on the Dispensary and Hospital out-patient relief which is to be held on December 12.

The Hackney District Board have voted to their Medical Officer the necessary authority to commence proceedings against Mr. Ayrton, the Chief Commissioner of Works, on account of the "filthy and unwholesome state of the water in the bathing-lakes, Victoria-park."

The French Government has conferred on Dr. A. Vintras the Cross of Chevalier of the Legion of Honour, in recognition of the services he has rendered to his countrymen for the last ten years at the French Hospital and Dispensary, London.

Hospital Sunday in Richmond. — On Sunday, November 19, the sum of £222 12s. 7d. was collected in the churches and chapels of Richmond and the vicinity. It is contemplated, at the beginning of the new year, to increase the accommodation by the addition of six new beds, in consequence of a legacy of £6800 which has been left to the Hospital by a wealthy tradesman of the town, of which £2000 has already been paid.

The Royal Society.—At the annual meeting of the Fellows of this institution, held on Thursday last (St. Andrew's-day) at Burlington House, the gentlemen whose names as candidates have already been published in the *Medical Times and Gazette* were elected Members of the Council. On this occasion the gold medals were presented to Mr. George Busk, President of the Royal College of Surgeons, for his valuable researches in Comparative Anatomy, Physiology, and Zoology; to Dr. Stenhouse, for his researches in Chemistry; and to Mr. Mayer, for his researches on Heat. Professor Airey, the Astronomer Royal, was elected President of the Royal Society in the vacancy occasioned by the retirement of General Sabine, who has filled the chair for ten years, having succeeded the late Sir Benjamin Collins Brodie, Bart., in 1861. It is not generally known that the Royal Medals of the value of twenty guineas each, which are presented annually, are a gift from the privy purse of her Majesty. In the evening upwards of 100 Fellows with several distinguished visitors dined together, as usual on this occasion.

Baby-farming in St. Pancras.—Dr. Lankester, on Saturday, held an inquest on a child, aged eight months. A fortnight after its birth the father died, and her mother, to obtain a living, went out to service, and put deceased out to nurse at 4s. a week for its support. Deceased gradually fell away to a skeleton. Medical advice was obtained, but the child never rallied. A post-mortem examination disclosed marks of a bruise on the head, that the stomach was devoid of food, and that the cause of death was wasting of the body from continued neglect, accelerated by want of breast-milk. The Coroner severely reproved the nurse for her inhuman conduct, and warned her to be careful with children for the future, for only last week a woman had been sent to prison for eighteen months, because she had neglected a nurse-child. A verdict in accordance with the Medical testimony was returned.

A Parish Doctor Censured.—Mr. John Humphreys held an inquest on Monday, touching the death of a boy, aged one year and eight months. The mother, the wife of a painter, living in Bethnal-green, said that on Thursday, finding her child was ill, she took him to the parish Dispensary, in Morpeth-street, and she there saw Mr. Massingham. When he saw the child, he said, "What is the matter?" but he did not examine the child. (Mr. Massingham: "You are a liar!") The witness continued, and said that the Doctor prescribed for the child, and she took it home. On the following day, she lifted the child out of bed, and found him dead. Another witness proved that the parents were kind to the child, and that the father was out of employment. Mr. Massingham deposed that the child had died from hooping-cough and convulsions consequent thereupon. The child had been brought to him under a parish order, but he did not know where the parents lived at the time. The order was referred to, and it was found to contain the address of the parents. After a long inquiry, the jury returned a verdict of "Death from hooping-cough," and they censured the Doctor for using the words, "You are a liar!" They also subscribed 10s. 6d. for the mother of the child. The Coroner informed the Doctor that he must respect the verdict.

Within what period, under peculiar circumstances, death may be presumed.—A somewhat curious case, which may possibly lead to some complications involving a not altogether dissimilar question of identity and survivorship to that set up in the Tichborne trial, though arising out of totally different circumstances, came before the Master of the Rolls on Saturday last. The name of the case was Greetham *v.* Miles. The question raised was, within what period the death of a member of Dr. Leichardt's exploring party was to be presumed to have occurred. The party left Sydney for the interior of Australia in February, 1848, with the intention of traversing the continent, and have not since been heard of. The testator died in February, 1850, having devised his real estate in trust for his nephews and nieces, as tenants in common, with a discretionary trust for sale, which was exercised by the trustees in June, 1850. Arthur Milnes Hentig, a member of the exploring party, was one of the testator's nephews, and the share he would have been entitled to, if living at the testator's death, had been carried to a separate account, in consequence of it being uncertain whether he had survived the testator. It was contended that the probability was that Hentig, who was a strong healthy young man, survived the testator. In support of this view, reference was made to *Chambers's Encyclopædia*, where the results of subsequent experience are collected, showing that the interior of Australia is by no means so inhospitable a place as is generally supposed, and that travellers need not die of thirst, which was supposed to have been the fate of Leichardt's party. The learned counsel read an affidavit of Hentig's brother of a rumour which had recently reached Sydney, that a white man, who is supposed to be one of the survivors of the expedition, has been seen somewhere in the interior with a party of natives after the death of the testator. The Master of the Rolls said that the inference he must draw from the established facts was that Hentig died within a year of the exploring party leaving Sydney, and that the heir-at-law of the testator, and not the heir-at-law of Hentig, was therefore entitled.

The Larval Ascidian.—Since the publication of Mr. Charles Darwin's "Descent of Man," the larval ascidian has become almost a household word amongst us. The observations of Kowalevsky and Kupffer on the nature of the *chorda dorsalis* in the larvæ of these molluscoids, and the presumed relationship which it indicates between the invertebrates and the vertebrates, led M. Donitz, a Berlin naturalist, to study the development, from the egg, of *Clavellina lepadiformis* during a recent visit to Naples. The conclusions at which he arrived are totally antagonistic to those of the above-named zoologists, and he regards the development of the ascidian as telling *against* the assumed relationship. The formation of the intestine, the body cavity, the nervous axis, and the axial rod are, according to him, quite different in the tail of the ascidian larva from the development of the same organs in the vertebrate embryo. A Russian observer, E. Menschnokoff, holds similar views, and maintains that there is no analogy between the development of the ascidians and the vertebrates. In spite of these antagonistic criticisms Kowalevsky maintains his former ground, and, in Schultze's *Archiv*, 1871, contributes additional observations on the "Development of the Simple Ascidians." He describes and figures the development of the free-swimming larva of *A. mammillata*, and thinks that he has now conclusively proved that the chorda of the ascidian is both analogous and homologous with the chorda of the vertebrates. A reviewer of Donitz's memoir, in the July number of the *Quarterly Journal of Microscopical Science*, suggests that the discrepancies in the conclusions of these observers are due to the fact that Donitz gives a very different definition of the chorda from that which is generally accepted.

CENTENARIANS.—No less than twelve of the deaths from all causes registered in London last week were of persons aged 90 years and upwards, including two centenarians—a carpenter, who died in the Shoreditch Workhouse, aged 102; and a widow, who died in Clapham, aged 101 years 11 months and 18 days.

PAPER AS A PRESERVATIVE FROM COLD.—It should be generally known that paper is a good non-conductor of caloric, and that during the Polish campaign of 1831 the soldiers preserved themselves from cold by covering their hands, feet, chest, and back with dry paper.—*Rev. Méd.*, September 30.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

*** In reference to Professor Fayrer's case of Penetrating Wound of the Abdomen, published last week, we have received the following note:—

"Dr. Chevers ascribed this sense of inability to relieve a full bladder to outward compression of the bladder, caused by the presence of extravasated blood in the pelvic cavity. The same distress was experienced by a European patient of his who died from rupture of the spleen in intermittent fever. In that case the quantity of blood which had fallen into the pelvis did not exceed a pound."

Student.—The M'Gill Medical College, Montreal, beginning at the same time as do the English schools.

A Successful Candidate.—The names of those gentlemen who passed for the Fellowship of the College of Surgeons cannot be published until confirmed by the Council.

A Magistrate, Rotherham.—The "L.K.& Q.C.P. Ireland" does *not* entitle the holder to place "M.D." after his name. Counsel's opinion has been taken more than once on this subject.

Dr. Harding, Waikouati.—Your letter with enclosure, has come safely to hand.

Dr. D. Campbell, Lyttelton, New Zealand.—Your communication has arrived; the enclosure was correct. The last date was February 4, 1871.

Etiquette.—The rule of conduct is clearly defined. Sir Astley Cooper, in the very zenith of his practice, was never known to be five minutes beyond his time at a consultation. This was not more out of respect for the time of a Professional brother than for his own sake. He would say—"If I lost five or ten minutes at any time in an appointment, I should be running after it the whole day, and, like a man running after his shadow, I should not overtake it." If a Medical Practitioner took a patient to Sir Astley's house, whether by appointment or otherwise, he was admitted as soon as possible to the presence of Sir Astley. He would walk out into his waiting-room and select his Medical friend. "Ladies and gentlemen," he would say in his fine way, "my friend is a Surgeon (or Physician, as the case might be), and I am sure you would regret that I should keep him waiting. He may be wanted elsewhere." This was the rule observed by the leading Practitioners of the last generation. Any departure from it now, by any person, however high his position or extensive his practice, must be regarded as offensive and impertinent. Cases like that mentioned by our correspondent have come under our notice before, but it is to be hoped they are very rare indeed.

ON THE INTRINSIC CAUSES OF TYPHOID FEVER.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—At a time when the hope of England lies stricken with fever of a typhoid character, I trust that the experience of a working Medical man, with a Professional career of more than half a century, may not be considered presumptuous. A short time since, coming from a case of the kind with an M.D., I asked him how he considered the disease was engendered. He replied, by the escape of soil into the water used; and he told me the case of a young man, the son of a banker, a short distance from town, and that it was satisfactorily proved, by the leak having been discovered. I asked of what number the establishment consisted, and whether that was the only case. I think he said thirty-five in family and servants, and that no other case occurred. I replied, that I attributed the disease to a totally different cause; I considered the predisposing cause to be blood-poisoning, arising from the absorption into the blood of fæculent matter, which had been constricted in the cells of the large intestines and had become putrid, and been carried into the blood. My impression is, that this occurs more especially in the upper portion of the descending colon. The blood being thus poisoned, too much fatigue, getting wet, depression of the mind, or any other general lowering of the system, produces the fever of a typhoid character. I am, &c., F. C.

EKZEMA *v.* ECZEMA.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—As you have touched on the question of ekzema *versus* eczema, I cannot help wishing that Mr. Erasmus Wilson, who is, I believe, the only person who spells it with a "k"—and he has only lately taken to doing so—would kindly consent to spell it with a "c." If he objects to doing that, I think he almost ought to explain why he *will* spell it in such a curious way. No doubt he will say, The Greeks spelt it with a kappa, and so why should not he spell it with a "k"! but that is scarcely enough. In the first place, a Greek who spelt it with a kappa had, at least, the excuse that all the other Greeks did the same; whereas of the Englishmen who spell it with a "k" Mr. Wilson is in himself the alpha and the omega. The universal custom of educated persons should at least go for something.

Then, again, if we are to follow Mr. Wilson—and it is to be presumed he desires that his example should be followed—we must, for consistency's sake, go further. We cannot stop at "ekzema and ekzematous affections," and leave out all the other words that come to us originally from the Greek. Cosmetics should by the same rule be *kosmetics*; eccentricity should be *ekkentrikity*; a cataract should be a *katarrhakt*—and so we go on to such funny spelling as would in our school-days have entailed on us a traumatic urticaria of both palms.

Mr. Wilson, in the ardour of an original research, has overlooked the fact that many, indeed most, of the words in our language that are of Greek origin do not come to us by any means directly from the Greek language—we derive them, in fact, as I fancy most persons are aware, not from the Greek but from the Latin tongue. We use them not so much because the Greeks used them as because the Romans adopted them. It would even be more correct to say that we learnt them from the Norman-French, who in their turn acquired them from the Romans. In either case we get them intermediately through the Latin language.

"How, then," (might Mr. Wilson ask) "came the Romans to commit so grave a mistake as to put a 'c' for a 'k'?—where were their 'k's' I should like to know?" The answer to this is simple; they hadn't got any. But let me anticipate any disparagement of them by adding that the Greeks were just as bad, only in another way. *They* were totally and absolutely without "c's"—indeed, quite as much so as some of our Londoners are destitute of *aitches*.

Any Greek who wanted to spell in his own language a Latin word spelt with a "c" would have to put a "k" as the nearest patch he could make, or else go without it altogether; and, conversely, any Roman who desired to spell in his own language a Greek word spelt with a "k" was obliged, for want of better, to write a "c"—so that we must not blame him if he did so. Now, as we are immediately indebted to the Latins (*not* immediately to the Greeks, let me assure Mr. Wilson) for so very many of the words of Greek extraction that enrich our language, I think it is almost ungrateful to shelve the Latins at last after they have helped us so much for so many centuries. Mr. Wilson's skill has often slaughtered eczema, but he ought to respect the memory of so stout a foe, and spare its name.

Nov. 25. I am, &c., BALMANNO SQUIRE.

RELAXATION.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—On the invitation of a kind patient we ran down to Brighton, to find her little boy flourishing on the prison diet of milk-and-water and Scotch oatmeal, although a year old and his teeth coming.

Resembling the old soldier who never misses a review, our first visit, of course, was to the clean, cheerful, wholesome, and well-regulated Sussex County Hospital. Next we criticised the ladies' riding—some bumping along on screws, unsightly objects, hair down, bad get-up, loose ribbons floating about, and the groom in old clothes and dirty tops; whilst other girls in blue, plain, tight-fitting, well-padded habits, were perfect pictures, managing their thorough-bred nags admirably. Strolling along the parade, we meet ladies' schools (artful-looking witches), cavalry officers (very quiet), retired captains (terribly ferocious), also invalids in bath-chairs, including unpromoted venerable Assistant-Surgeons. "Hope deferred maketh the heart sick." A certain young lady has a photograph of a martial Medical officer in a black belt, the hateful cocked hat, and the dismal green feathers, who, ten years ago, promised to marry her when able. She, alas! grown thin and angular, has an ugly cough; and he, qualifying for delirium tremens, cannot be trusted with a razor. On the pier more pretty girls in Chinchilla furs and red silk skirts—a hundred a year, allowed by the parents on marriage, would soon be expended. What with the bracing air, the clear atmosphere, the tiny waves dancing in the sunbeams, and the band playing the "Beautiful Danube," the wearied Practitioner feels a new man. Until in the promenade, the world is very small—a pale, careworn face recalls dreadful hours of strained mental torture, when his young wife (with a history of uræmic convulsions in a previous labour) succumbed to malignant scarlet fever. Can we never shake off work and consequent brain-softening anxiety? Apparently not.

In the afternoon, in a well appointed red-wheeled carriage, with supercilious powdered cockaded lackeys, we pass the worshipful M——r in an exquisite brougham, reading "Phthisis as a Neurosis," an interesting paper in the *Medical Times and Gazette*, and, catching the attention of Poole and other tradesmen, we feel assured that certain little accounts can stand over. But in a showy equipage, with jingling plated harness, the servants in blue coats and red plush breeches, our jaw drops to observe Jewish ladies accompanied by Chutnee Currie, the quack money-lender, in a Scotch cap, a velvet coat, and his legs wrapped in the skin of the tiger we shot in India. Somehow, at the goldsmiths' ball, his daughters were neglected; now they return grovelling obeisance with stony contempt, whilst he, smoking a cigarette, rolls his dark sleepy eye, and, smiling maliciously, clearly intends to look someone up ere long.

Victorias, mail phaetons, carriages of every description passing by. Can that be Dr. ——— (oblivious of drains and ventilation) flirting on a drag with the rich widow who graciously received opera-boxes, expensive dinners at Greenwich, tickets for balls and flower shows, gratuitous Medical attendance, vaccination gratis—in short, accepted everything but ourselves? A hint to beginners: Never have crests and monograms engraved on presents, which, returned, will go the round again. We had a second-hand emerald ring doing duty for several years until this cunning widow kept it.

Vanity Fair becoming monotonous, we read at the club Parkes and Sanderson's report on the degraded condition of Liverpool. Poverty, dirt, and intemperance are all bad enough, but for a working-man not even to have *heard* of the *British Medical Journal* is simply astounding; whereas at the North Pole, in the Mexican forest, or the unexplored African wilds, the inhabitants are weekly punctual subscribers! Also, there is a curious account of a Dispensary, where the patients not merely receive Medicine and Medical attendance free gratis and for nothing, but expect a hamper containing a goose and Christmas gin (Gilbey Castle G.). At the hairdresser's information is received that a quiet Indian cavalry regiment occupies the barracks; all the officers have been cadets—that is to say, risen from the ranks. Rather tickled, we inquire about a former crack corps who spent everything and went to almighty smash. "Oh! sir, they did nothing; absolutely nothing." So much for entertaining at Brighton. The great unknown, the respected Editor, doubtless of sporting turn, here, in P. R. language, impatiently calls— TIME.

COMMUNICATIONS have been received from—

Dr. Arcoleo; Rev. G. Greenwood; Student; Mr. F. W. Stone; Mr. S. B. Miad; Mr. W. B. Wilson; Dr. Playfair; Messrs. A. and C. Black; Mr. C. Woodcock; Mr. W. W. Reeves; Mr. J. Milward; Mr. A. Stedman; Mr. Hoadley; Mr. Axon; Mr. Stansfeld; F. C.; Dr. Broadwood; Professor Liebreich; Dr. Day; Dr. J. Wickham Legg; Dr. Phillips; Mr. J. Chatto; Dr. R. Douglas Powell; Dr. J. Hughlings Jackson; Dr. Sedgwick; Mr. R. H. Leach; Dr. Corfield; Mr. Tobin; Mr. H. C. Mauley; Dr. B. Squire; Mr. H. C. Lawrence; Dr. Fayrer; Professor Humphry; Mr. Macdonald; Dr. Porter Smith; Mr. P. Bell; Mr. William Thomson, Victoria; Dr. Ritchie; Mr. H. Kingscote; Dr. G. Lawson; Dr. Warwick; Mr. J. B. Walker; Dr. Washbourn; Dr. E. Symes Thompson; Dr. Pitman.

BOOKS RECEIVED—

Report of the Medical Committee of the Charity Organisation Society—Beasley's Pocket Formulary, ninth edition—Higginson's Report on Thirteen Cases of Transfusion of Blood—Fleming's Notes on the Carbolic Treatment of Leprosy—Report on the Sanitary Condition of the Whitechapel District—Berkart's Preliminary Notice on the Treatment of Emphysema of the Lungs.

PERIODICALS AND NEWSPAPERS RECEIVED—

Detroit Review of Medicine and Pharmacy, November—Nature—Pharmaceutical Journal—Chloralum Review, November—The Journal of Phychological Medicine, October.

APPOINTMENTS FOR THE WEEK.

December 2. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; King's, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

4. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Anthropological Institute, 8 p.m. Meeting.

Medical Society of London, 8 p.m. Mr. Walter Coulson, "Two Cases of Successful Transplantation of Skin on extensive Tertiary Ulceration." Dr. Hughlings-Jackson, "A Case of Tumour and Cyst of the Right Lobe of the Cerebellum."

Royal Institution, 2 p.m. General Monthly Meeting.

5. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Pathological Society, 8 p.m. The following Specimens will be exhibited:—Dr. C. T. Williams (for Dr. Quain), "Disease of Aorta," etc. Dr. C. T. Williams, "Disease of Supra-renal Capsules in a Phthisical Subject." Mr. A. Norton, "Cancer of Larynx." Mr. F. Churchill, "Fatty Tumour simulating Ranula." Dr. Green, "Interstitial Pneumonia." Dr. Crisp, "Cirrhosis of Liver and Baggy Stomach; Disease of Hip-joint and Kidneys."

6. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1¼ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 2 p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Medico-Psychological Association (Rooms of the Medical Society of London, 32A, George-street, Hanover-square), 8 p.m. 1. Clinical Reports, Morbid Specimens, etc. 2. Paper by Dr. Maudsley (President), "Is Insanity on the Increase?"

Obstetrical Society, 8 p.m. Mr. Eugene Goddard, "On a Successful Case of Ovariotomy during Pregnancy." Dr. Brunton, "On Fibroid Enlargement of the Uterus." Dr. Edis, "On the Systematic Examination of the Uterus, with the view of rectifying Malpositions of the Fœtus." Dr. Meadows, "On a Case of Extra-uterine Fœtation, with Remarks on Treatment."

Royal Microscopical Society, 8 p.m. Mr. J. Bell, "Fermentation and its Results." Dr. L. Beale, F.R.S., "The Nerves of the Capillary Vessels, and their probable Action in Health and Disease."

Society of Arts, 8 p.m. Mr. J. Bailey Denton, "On Sewage as a Fertiliser of Land, and Land as a Purifier of Sewage."

7. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; West London, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Harveian Society (Special Council Meeting, 7¼ p.m.), 8 p.m. Mr. G. G. Gascoyen, "On Spermatorrhœa and its Treatment."

8. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

Clinical Society, 8½ p.m. Dr. Ogle, "On the Temperature in certain Affections of the Nervous System, and especially in Tetanus." Dr. Habershon, "On Cases of Heart Disease." Dr. Broadbent, "Tumour in Left Half of Floor of Fourth Ventricle, with Small Tumour in Cerebellum."

Queekett Microscopical Club, 7 p.m. Extra Meeting, for Conversation and Exhibition of Specimens only.

VITAL STATISTICS OF LONDON.

Week ending Saturday, November 25, 1871.

BIRTHS.

Births of Boys, 1083; Girls, 1036; Total, 2119.
Average of 10 corresponding weeks, 1861-70, 2034·9.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	917	946	1863
Average of the ten years 1861-70	773·3	757·9	1531·2
Average corrected to increased population	...	...	1684*
Deaths of people aged 90 and upwards	...	...	12

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561189	...	9	3	1	9	...	2	3	...
North ...	751668	37	19	9	...	15	...	12	...	3
Central ...	333887	...	4	1	1	6	2	5	1	...
East	638928	14	14	6	...	12	1	3	5	1
South	966132	16	14	15	2	22	1	5	4	3
Total	3251804	67	60	34	4	64	4	27	13	7

METEOROLOGY.

From Observations at the Greenwich Observatory.

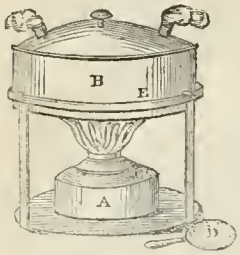
Mean height of barometer	29·978 in.
Mean temperature	34·3°
Highest point of thermometer	44·2°
Lowest point of thermometer	20·3°
Mean dew-point temperature	30·4°
General direction of wind	S.S.E. & W.S.W.
Whole amount of rain in the week	0·10 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, November 25, 1871, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1871.*	Persons to an Acre. (1871.)	Births Registered during the week ending Nov. 25.	Deaths Registered during the week ending Nov. 25.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3263872	41·8	2119	1863	44·2	20·3	34·3	1·28	0·10	0·25
Portsmouth ...	113450	11·9	75	56	46·6	25·4	37·0	2·78	0·72	1·83
Norwich	80533	10·8	52	65	42·2	26·5	33·4	0·78	0·02	0·05
Bristol	183298	39·1	132	102	...	...	...	...	...	...
Wolverhampton ...	68476	20·2	43	66	43·2	24·6	34·9	1·61	0·25	0·63
Birmingham ...	344980	44·1	253	165	45·4	21·8	34·4	1·33	0·27	0·69
Leicester	95882	30·0	62	40	42·2	19·0	33·5	0·84	0·14	0·36
Nottingham ...	86929	43·6	55	61	42·2	20·5	33·0	0·56	0·06	0·15
Liverpool	493649	96·8	328	307	46·1	31·3	36·8	2·66	0·38	0·97
Manchester ...	356099	79·4	269	210	43·2	24·0	35·5	1·95	0·13	0·33
Salford	125422	34·3	84	69	44·0	24·7	35·5	1·95	0·17	0·43
Bradford	146987	22·3	99	83	...	...	...	...	...	...
Leeds	260657	12·1	203	133	44·0	23·0	34·6	1·45	0·04	0·10
Sheffield	241507	10·6	165	137	43·0	22·7	34·8	1·56	0·10	0·25
Hull	122266	34·3	65	57	40·0	21·0	32·3	0·17	0·14	0·36
Sunderland ...	98797	29·9	60	82	...	...	...	...	...	...
Newcastle-on-Tyne	128677	24·1	91	74	42·0	27·0	34·5	1·39	0·09	0·23
Edinburgh	201728	45·6	114	122	49·0	25·0	36·5	2·50	1·90	4·83
Glasgow	479227	94·7	354	302	...	...	...	...	...	...
Dublin (City, etc.)	310565	31·9	196	162	56·8	28·0	43·6	6·44	0·33	0·84
Total of 20 Towns in United Kingd'm	7204001	33·8	4819	4156	56·8	19·0	35·3	1·84	0·30	0·76

At the Royal Observatory, Greenwich, the mean reading of the barometer in the week was 29·98 in. The highest was 30·28 in. on Sunday morning, and the lowest 29·74 in. on Saturday afternoon.

* The figures in this column are the unrevised numbers enumerated in April last, raised to the middle of the year by adding 1-40th of the rate of increase which prevailed between 1861 and 1871. As the population of Dublin and its suburbs showed a decline between the Censuses of 1861 and 1871, the enumerated number in April last has been inserted for that city, the population being assumed to be now stationary.



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ORIGINAL LECTURES.

LECTURES ON EXPERIMENTAL AND PRACTICAL MEDICINE.

By BENJAMIN W. RICHARDSON, M.D., F.R.S.

ON THE SCIENCE AND ART OF EMBALMING THE DEAD.

LECTURE I.

GENTLEMEN,—I have been led to the study of the subject of embalming the dead by an almost unconscious and unintentional progression. When I first entered on the field of experimental research, the very first inquiry followed out had reference to the antiseptic properties of gases. At that time (1849-50) the action of chemical substances inhaled in a state of gaseous or vaporous diffusion was the leading topic in the Medical world. Speculations were rife as to the mode in which narcotic vapours produce their narcotic effects after their inhalation; and Snow, taking the lead, perhaps, in this controversy, advanced the theory that all narcotic vapours act by arresting the process of oxidation in the living tissues—in other words, that they subdue the animal fire. He was wont to illustrate his views on this point by this his well-known experiment of dipping a lighted candle into an atmosphere containing vapour of chloroform, and showing that the burning of the candle is reduced and extinguished.

As time has rolled on I have been led to think that the theory founded by Snow, on the experiment I have just shown, wide as the basis of the experimental fact may be, is perhaps, after all, not a correct unfolding of the question it would solve, but is rather a step towards the solution. Nevertheless, to me and to many more, it carried with it originally a truly useful fascination; it led me specially to direct attention to the inquiry into the antiseptic properties of gases, of which mention has been made. If, I reasoned, these gases arrest the process of oxidation of living tissue by their presence, they ought, in like manner, to prevent the oxidation—that is to say, the decomposition—of dead matter; and so I set industriously to work to try what would be the effect of exposing dead structures to the influence of various gases and vapours. It was a study full of rich results, and was the more delightful because the responses got by knocking at the great door of nature were almost uniformly in one tone, and that in favour of the theory on which the research was based. The experiments were conducted with an almost childish simplicity. A piece of dead structure, usually a specimen showing some pathological change, was set up in a bottle; then, if a gas had to be introduced, the bottle was filled with water, the water was displaced by the gas, and the gas, well dried and warmed in its transit, was driven on until the inner surface of the bottle was dry; afterwards, the bottle was stopped under the water, and was carefully sealed up. If a vapour yielded by a volatile liquid—chloroform, for instance—were employed, the specimen was fitted up as before; then the volatile liquid was poured in sufficient quantity beneath the specimen, and the bottle was immersed in a water-bath and heated gently until the fluid had boiled nearly all away. At this point, the bottle, filled with the vapour only, was carefully closed.

By this process, step by step, I learned that a great number of vapours and gases arrested, by their presence, the process of putrefactive change. Chloroform, ether, arsenuretted hydrogen, hydrogen, and many more gases, were found to possess singular antiseptic power. On these researches and their results a paper on the antiseptic properties of gases was founded. The paper was read before the Medical Society of London, and had a fortunate reception. At the reading there was a gentleman present, then a stranger to me, but now an old friend—Mr. John Fernandez Clarke—and a kindly line or two from him in one of his reports to the *Lancet* did more for the subject than I can tell. It had previously been supposed that, in order to keep a dead tissue in preservation, immersion in spirit, or in some saline solution, or injection of it, was requisite; now, the action of gases and of vapours was proved to be effective, and, the notice of the fact having been made very prominent, a new advance was promised, the end of which is not yet seen. Continuing the same line of research, I discovered the antiseptic property of vapour of ammonia, and communicated that also to the Medical Society of London.

There are some specimens at this moment on the table which show how well the process of preservation of dead structure may be maintained by the contact of gases and vapours. Here are two kidneys, showing the extreme congestion of these organs that is found in fatal cases of congestive fever—that sudden nervous lesion of the vessels of visceral organs, during which the heart pours its blood into them until, from engorgement, they cease their function. These parts have been in vapour of ammonia for the period of twelve years, and here they remain nearly as at the moment they were removed. There is a specimen of portions of intestinal tract studded with minute and large hæmorrhagic spots, in which the lesions are equally perfect, and in this instance the preservation has extended over twelve years.

I found this method of preserving animal substances of great use to me in teaching. Dissections of various organs, as of the heart, I have kept from week to week, and have demonstrated readily from them, without the trouble of new dissection.

Pursuing this subject of preservation still further, but in a slightly different course, I attempted to bring back animal tissue that had undergone actual putrefaction to something like a recognisable pattern of natural condition; and once, in the interests of justice, I manipulated on an unrecognisable putrid body, and so far succeeded as to enable important evidence of identity, which could not before be obtained, to be secured. The process was confessedly imperfect, as all such first efforts, made without any previous light to guide the inquirer, necessarily are; but it answered the purpose, and, repeated in California by Dr. Henry, of Alta, it succeeded so well that a miserable murderer, who thought his victim hidden conclusively in the putridity of death, was so paralysed by the result that he confessed his crime and all its terrible details.

Still pursuing the same research, I constructed a fluid for treating organs of the body that had become absolutely offensive from putridity, so that they could be examined for marks of injury or other lesions. This fluid, some of which I send round, is made as follows:—Iodine, ʒj.; methylated ether, of sp. gr. ·720 (by measure), ʒx.; absolute alcohol (by measure), ʒj.; strong sulphuric acid (by measure), ʒiv. Dissolve the iodine in the ether and alcohol mixed together, then slowly drop in the sulphuric acid.

The fluid, when it is poured upon the putrid tissue, is almost instantly absorbed; the soft mass is deodorised effectually, and is rendered sufficiently firm to admit of being dissected with ease. In the open bottle I hand to you is a piece of once putrid lung that was thus treated three years ago; and you can see how perfect it remains. The action of this solution is that the iodine deodorises, while the sulphuric acid engages the water and the alkaline products of decomposition, and produces the necessary firmness of structure. The ether escapes; it is simply the fluid menstruum for the other agents.

The labours thus glanced at becoming known, I was asked some years since if I would embalm a body that was to be sent abroad. Accepting the office, I began to study the history and practice of embalmment. Finding the study of the art (the history of it especially) instructive, I have sedulously pursued it, with many unusual advantages; and, as I have also striven, with some success, to improve the art, I venture to recall it to your minds. I say I recall the study; for in our time it has hardly been thought worthy even a place in our text-books. I know not why it is so; but the fact exists, and it implies a misconception. The process of embalming is a scientific process, equal certainly with that of conducting a post-mortem examination, and it is sometimes a useful process. I have known its successful performance make living lovers of the dead happier in their distress. It is often so imperatively demanded that, on the refusal of men of science to do it, the ignorant are paid large sums to attempt it. Lastly, it is an art which essentially belongs to the professors of Medicine, who can never let anything that pertains to the physics of the body, living or dead, pass out of their hands without proclaiming that part of their legitimate occupation has gone.

DISPOSALS OF THE DEAD.

On the three methods of disposal of the dead most commonly practised in the different stages of the human history of this planet—viz., burial, or concealment of the body in the earth; cremation, or destruction by fire; and preservation, by preparing the body with a balm, that it may be long kept, "embalming"—on these three methods of disposal, many learned books have been written and much controversy has been waged. Which of the three modes was first instituted? What particular nations favoured one mode in preference to the other? What was the ideal that prompted preference for either method?

As it seems to me, the natural course of history on this subject is exceedingly plain and simple. The custom of savage life, to leave the human dead to the carnivorous birds and beasts, passed readily enough, and with little development of refinement, into the more human practice of hiding the bodies from these animals in the earth, and led to the second primitive stage of disposal, which, on the whole, has outlived all other methods—viz., burial in earth. We trace the remnant of this custom in countries of wonderful civilisation, even after other, and, as it was assumed, more refined, practices had generally replaced it. Thus, in Greece, where cremation was the established custom, and interment, except under special circumstances, was interdicted, the traveller who should find a dead body was enjoined to bury it, or, if he could not do so much, to cast dust of earth upon it three times—

> "Quanquam festinas, non est mora, licebit
> Injecto ter pulvere curras."

Indeed, such was the anxiety of the early Greek in respect to decent burial, that Pluto, who taught first the rites of burial, was raised, like Æsculapius, into the number of the immortal gods. No deeper curse could be passed from one person to another than that which conveyed the wish that the cursed should have no burial; and when the sailor died at sea, he was consigned to the deep with horror, bearing on his body the most costly gift he could bear, with the request that, if on some friendly shore he were cast, and found, the finder would accept the reward for the pains of burial.

Later on, in the course of civilisation, new ideas sprang up respecting the continuance of man as a veritable existence, destructible or indestructible, or, as the poets would have it, mortal or immortal. As the intelligent part of the human nature became developed, the value of the intelligent part rose in estimation, while, in respect to matchless intelligences manifested as man, it was accepted as impossible that with the dissolution of the grosser or material parts of the organism the whole could resolve. At the same time, the mind, unable to isolate its idealisation of spirit and matter, could hardly receive the conception of a great intellectual unembodied force. Thus great men were crystallised into imaginary figures of gods, and in time the notion was conceived of retaining the matter for the re-reception of the spirit. Thereupon sprang forth two methods of disposal of the dead—one, the subjection of the body to fire; the other, the subjection of it to a process that should save it from decay. Strange it may seem, that two plans so different in effect should have the same origin. Yet the fact is so. The institution of the process of burning the body, by the ancient Greeks, from whatever source or suggestion they may have derived it, had no touch of materialistic feeling. The men who transformed their greatest men into gods, and who carried out their young dead to the funeral pile before sunrise, that the sun should not be the witness of so terrible a calamity as the cessation of life while yet it had not neared its perfected glory, were not men tainted with the doctrine of negation after death. Not at all! The burning to which they subjected the dead body was to them a process of purification for the soul, which, left unclean in its earthly state, required to be made perfect by the absolute purification of the casement in which it had been enshrined on the earth: so they subjected it to the *pur*, in later times the *ignis*, in our times the great purifier—the fire. Further, they thought in this purification they the sooner set free the indestructible principle of life, that it might enter the more speedily into the domains of the blessed. This was the Greek ideal of cremation; and it colours still the many thoughts of man. It is the root of a faith to the present hour, though differently symbolised.

The second process had its origin in the same but in a slower current of development. The noblest human representation was by the Greek subjected to the most consummate purification, that it might be freed of dross of earth; by the other intellectual process the effort was attempted to preserve the animal body so that it might, in course of the suns, and at some strange and eventful moment, be united with the principle that had left it, and revivify. Again, in this ideal projection, we see the origin of a thought that remains still in the many thoughts of mankind, the root of a faith symbolised differently, but a faith of millions of our race.

On this last named ideal rose the art of embalming the dead, and as it developed it gained a new strength—a second limb, I might say—from the lower or instinctive interests of humanity. It led to the retainment of those who on earth had been loved and admired, nearer and longer, as it seemed, with those who lived to love, to remember, to admire. For this reason the practice of embalming great personages has retained its unabated power, while recently, in a country amongst the most civilised and the most advancing—America—the practice has received advancement, not merely in its application to the great dead, but to the dead generally, by those in whom the tie of attachment is closest and most abiding. Moreover, from America as a new centre, the practice extends; so that in brief course it will, if my experience be not at fault, largely prevail again in all civilised communities.

(To be continued.)

ORIGINAL COMMUNICATIONS.

CLINICAL REMARKS
ON THE SEVERAL FORMS OF PULMONARY PHTHISIS.

By R. DOUGLAS POWELL, M.D., M.R.C.P.,
Senior Assistant-Physician to the Hospital for Consumption and Diseases of the Chest, Brompton;
Assistant-Physician to the Charing-cross Hospital.

(*Continued from page 676.*)

Recurrent Hæmoptysis: Illustrative Case—Main Features of the Disease; Repeated Copious Hæmoptysis; Chronicity of Pulmonary Disease—Pathology: Slowly forming or Old Excavation, not necessarily Tubercular; frequent absence of Secondary Fever; Modes of Arrest of Hæmorrhage—Treatment, Prophylaxis—Both the forms of Hæmoptysis described rare; Significance of true Hæmoptysis but little weakened by modern research.

The following very typical example of recurrent hæmoptysis has now been under my observation for nearly five years and I will summarise my notes, which have extended over the whole of this time, as briefly as possible:—

Thomas W., aged, at the present date, 31, described as a fitter, first came under my notice at the Brompton Hospital, in May, 1867. He had been ailing for some years with occasional cough, and had been three years previously under the care of Dr. Stone, at the same Hospital. He complained of pain in the chest, bad cough, but with, he said, no expectoration; he had had streaky hæmoptysis several times. He was doubtful whether he had got thinner; the appetite and digestion were good, the bowels regular, and the pulse slow. The only history of hereditary predisposition consisted in his father, an intemperate man, having died of consumption at the age of 44. The patient himself has always been a tolerably steady man of very active habits. He is very intelligent, of sanguine temperament, clear complexion, of medium height, and slight, though robust build. A striking feature about him, and worthy of note, is his extreme excitability—an almost superfluous energy with which he is gifted, which leads him to do everything with exaggerated effort.

At the date of his first attendance there was present at the left apex some dulness, with a few clicks.

On June 29 he reported having expectorated on the previous day a considerable quantity of blood, and, as he was still spitting some, he was ordered gallic acid powders.

On August 3 he spat more blood, and *a note is entered of the existence of a small vomica at the left apex.*

8th.—"Hæmoptysis one pint this morning;" repeated powders, and ordered mist. acid. sulph. co.

On the 10th the hæmoptysis continued in a less degree, and the breath was freer; he was ordered counter-irritation to the left apex, and to continue the medicine.

On the 17th croton oil liniment was applied to the left apex. At this date, regarding the continuance of the hæmoptysis and its repeated occurrence at intervals, together with the absence of any corresponding progress in the pulmonary physical signs, which were still limited to the summit of the left lung, I was first led to suspect the existence of a small aneurism of a pulmonary vessel there.

On the 24th, however, the hæmoptysis had almost ceased, and, as the patient was emaciating, mineral acid and bark, with small doses of oil, were prescribed, and a linctus for the cough, which was troublesome. With the exception of a very trivial attack, he had no return of hæmoptysis, and ceased attending the Hospital, greatly improved in health, at Christmas of the same year.

He returned again in October, 1868, having continued, as he expressed it, "well," and at work until a fortnight previously. He had now slight cough, and had expectorated some blood, but not so much as on previous occasions.

At this date there was "dulness on the left side anteriorly to the mamma, with high-pitched bronchial breath-sound, pectoriloquy, and cavernous cough; sounds very dry; some crepitus at the angle of left scapula." The oil was repeated, and an alkaline bitter ordered, with small doses of iodide of potassium. He again improved, having only one slight attack of hæmoptysis in November; and at Christmas, having an in-patient letter, was admitted into the Hospital under the care of Dr. Pollock, who confirmed the accuracy of the signs as above described. He only remained in a month, however, during which time I saw him on several occasions, and cautioned him against displaying so much energy in doing the most trivial thing, and in coughing with such unnecessary violence. He had no appreciable expectoration, and left the Hospital feeling well.

I did not see him again until August, 1870, when, having remained quite well and at work until the previous Wednesday, he expectorated half an ounce of blood. The physical signs were still limited to the left apex, where there was dulness, bronchial respiration, crepitus, and friction (creaking pleura), and a whiffling murmur, systolic, audible in infra-clavicular region, continuous from subclavian not from pulmonary artery region (and no doubt conducted subclavian murmur). He ceased attendance in October, and continued pretty well until March 4, 1871, when he again attended with hæmoptysis, and was seen by my colleague, Dr. C. T. Williams, in my absence, who ordered gallic acid immediately, and directed him to send in three days' time. With his usual imprudence he attended personally on March 8, having come from Battersea, though still spitting blood freely, and brought up a considerable quantity in the out-patient room. I prescribed mxx. of ergot every two hours for twelve doses, and ordered emp. lyttæ, four inches by four, to the left infra-clavicular region. This attack proved the most prolonged and desperate one he had yet had, and nearly terminated fatally.

March 11.—Wife attended; hæmoptysis still continues; brought up half a pint of blood this morning at 2 a.m. Ordered six ʒss. powders of gallic acid, one to be taken directly, and one-third (gr. x.) every two hours, with morphia linctus to allay the cough, and a brisk purge.

15th.—Hæmoptysis continues in a less degree. A mixture containing nitro-muriatic acid with glycerine and ipecacuanha (which I have found of great service at the close of an attack of hæmoptysis) ordered, and some more powders and purgative.

On the 22nd he had had three more attacks of copious hæmoptysis three days previously, and was extremely exhausted by the continual loss of blood. Sulphate of iron and alum were prescribed.

29th.—"Hæmoptysis half a pint yesterday; same amount to-day." ʒss. doses of gallic acid ordered every four hours for six doses.

On the 30th, mist. acid. sulph. co. 3tis horis; pil. plumb. c. opio gr. v., nocte maneque; iodine paint under left clavicle. From this date the violence of the attacks much abated—I should imagine rather from lack of blood-supply than from the efficacy of the remedies used, which, however, were steadily continued until April 13, when he had had no hæmoptysis in quantity for a week.

On April 20 some small doses of cod-liver oil were ordered and the acid ipecacuanha mixture, with a little morphia. He had no more hæmoptysis after this, and again attended personally, though with great difficulty, from his extreme weakness, on May 4. At this date there was noted at the left apex "retraction of lung, dulness, cavernous respiration, and rhonchus (slight)." Posteriorly there was "diffused crepitation, with some defective resonance." This was the first occasion on which the lung had appeared to suffer from the effects of the hæmoptysis. The cough was troublesome, especially in the morning, and on the 11th he was ordered ether and ammonia expectorant in the morning, lest his violent and unaided efforts at expectorating should lead to a reopening of the broken arterial branch or possible aneurism, which seemed to have been the only conceivable source of such profuse and repeated hæmorrhage. It was extraordinary to note the rapidity with which the patient regained flesh, strength, and colour, though butchers' meat was only allowed every other day, stimulants were cut off, and abundance of milk alone permitted. He continued to take mineral acids and oil ʒj. a day. He did not at all approve of this diet, but, from previous experience of his rapid blood-making qualities, I was convinced that a more generous regimen would have led to a return of the hæmorrhage.

On June 29, having only (on the 8th) had one comparatively slight attack of hæmoptysis, the physical signs showed enlargement of the right lung, the margin of which reached across the median line; still some irritative bronchitis at the left base, indicated by diffused submucous râles. Compound iodine ointment frictions ordered.

Beyond an occasional tinge of the morning expectoration he has had no more hæmoptysis up to the present time, and has returned almost to his usual health, though the breath is shorter. Since June he has taken no oil; some digitalis was added to his mixture for a few weeks; and the diet has continued restricted, though less so of late.

This case, the great length of which demands some apology to my readers, is one of extreme interest to me, as exemplifying well what I believe to be the main features of recurrent hæmoptysis, viz.:—1. Repeated copious hæmorrhages obviously arising from disease localised at one portion of the lung. 2. Pulmonary disease, chronic in its course, and but little influenced directly by the hæmoptysis, which is accompanied by no severe fever or secondary pneumonia, and from which the patient frequently makes a speedy recovery, though it may prove directly fatal. The pathological condition common, I believe, to all these cases of recurrent hæmoptysis, is that of a slowly formed cavity, or one formed by a very localised process of an active character, in the walls of which pulmonary vessels still patent are exposed. It will be observed that the case above described did not begin with hæmoptysis; the man had had some dry cough and occasional streaky hæmoptysis for some years previously, and a few days after the first considerable hæmoptysis a vomica was found at the left apex, where some two months previously there was consolidation and softening. But the vomica need not be of "tubercular" origin—*e.g.*, a soldier has been under my care at Brompton for the last fourteen months, who, in March, 1869, while blowing the clarionet, in India, was seized with hæmoptysis to the amount of about a quarter of a pint, which did not quite cease for about a week. A month or six weeks later, after having suffered for four or five days from severe pain and oppression in the right infra-mammary region, he suddenly brought up about a pint of "corruption" and some more blood, and since that time he has had hæmoptysis every few weeks. Since he has been under my notice, the attacks of hæmoptysis have usually been preceded by severe oppressive pain in right mammary region. The pulmonary disease is mainly at the base or rather the middle of the right lung, there being scattered moist crepitation over the lung, with dulness, most marked at the base. Within the angle of the scapula, and also at the corresponding point in front, opposite the fourth rib, tubular respiration with some large click is heard. This case appears, then, to have begun with abscess in the lung—whether secondary to pulmonary apoplexy or not it would be difficult to say—which has probably left behind a chronic deep-seated cavity. (a) The patient, Thomas W., whose case is above related, has never appeared to be febrile, and during the short time he was in the Hospital, on one occasion when he had hæmoptysis, though to a much less degree than usual—viz., one ounce—my friend, Mr. Bartlett, the Assistant Medical Officer, found his temperature to be normal. In two other men now under my care as out-patients, who, while in the Hospital, suffered from severe hæmoptysis, this same gentleman found no elevation of temperature—*e.g.*, one case, James A., a stonemason (who had previously been under my care for some time with a vomica at the base of the lung, and induration at the apex, and who had several times had copious hæmoptysis while in the Hospital under Dr. Quain) on November 14 brought up half a pint of blood at 10 a.m., repeated half a pint at 7.30, temperature 97·8°; 10 p.m. four ounces, temperature 99·2°. 15th.—10 a.m., temperature 98·8°; 5 p.m., temperature 98·2°, hæmoptysis three-quarters of a pint half an hour before; 7 p.m. and 9 p.m., temperature 98·2°. He had no more hæmoptysis, and the temperature (taken twice daily by Mr. Bartlett, up to the 21st) never

(a) He was discharged from the army, from Netley Hospital, with "abscess of the liver and phthisis."

rose above 98·4°. The physical signs were not altered, and the patient rapidly improved in general health.

The danger in these cases is from the abundance of the hæmorrhage, which in a great number is the cause of immediate death on the first occasion. It is surprising this should not be so in almost all,(b) and nothing is more striking than the recovery of some patients from (apparently) the most hopelessly profuse hæmoptysis, nature apparently seizing the moment when, from faintness, the blood is at a standstill to heal the breach by the formation of a coagulum. Hence the importance of withholding all stimulants till the latest moment. Rokitansky refers to another mode of arrest of the hæmorrhage from a large vessel in a cavity—viz., by the cavity becoming blocked by coagulum, which thus compresses the vessel. I have seen an instance, post-mortem, in which the apex of the right lung was converted into a blood-cyst, quite closed, as large as a lemon, which had been produced by hæmorrhage into a cavity.

In the form of hæmoptysis now under consideration, besides the general principles of absolute muscular rest, etc., before referred to, we must be more diligent with astringents and remedies which control the heart's action and allay cough: ergot acting upon the muscular walls of the arteries, digitalis diminishing the frequency of the heart's action, and opium lessening excitement and allaying cough, are of the greatest value. Ipecacuanha emetics, admissible in certain cases of primary hæmoptysis, would be certainly harmful in these. Our object is to allow the blood to coagulate at the seat of rupture, and faintness short of actual syncope should be encouraged, rather than prevented by stimulants. Nauseant remedies, however, from their relaxing effects on the vessels, are inadmissible. Interrupted cold applications to the chest may be tried in these cases more usefully, I think, than in those in which the hæmorrhage is capillary.

With reference to prophylactic treatment, patients the subjects of phthisis (particularly with chronic cavities) should be cautioned against muscular efforts, such as running upstairs or walking fast. The experiments of Colin(c) show that on exertion the pressure of blood in the pulmonary artery increases in greater ratio than that in the aorta. In those patients, too, who are gifted with rapid blood-making powers, and who pick up flesh with great rapidity after hæmoptysis, a timely partial abstention from butchers' meat, and the complete withdrawal of stimulants, may ward off or postpone the next attack.

Having dwelt at considerable length upon two classes of cases in which copious hæmoptysis is a very prominent and important symptom—in the one class because it is the first symptom, and, though never directly fatal, is yet often attended with secondary results which endanger the life of the patient; in the other, because the hæmorrhage is always extremely dangerous, and may at any time prove directly fatal, while its secondary results are, as a rule, trivial, and but slightly influence the progress of the disease, which is usually one of the very chronic forms of phthisis—we must not omit to point out, for fear of misconception, that the cases which constitute these two classes are few and exceptional. Hæmoptysis, as a rule, whether very slight or moderately copious, is a merely casual, though very important symptom, in the course of phthisis.

I must, in conclusion, further state it as my firm conviction, that, take hæmoptysis from what point of view we may, its *genuine* occurrence in any degree beyond a mere streak in the expectoration is a symptom the gravity of which has not been in the least exaggerated by the much-abused Laennec and others of equal experience—*i.e.*, so far as it is significant of positive disease—in the enormous majority of cases.(d) Putting the matter in the most practical form, I presume there are very few Physicians who would venture to consider a candidate for life assurance as a "good life" who had the history of a distinct attack of hæmoptysis. But, on the other hand, by fully recognising the gravity of this symptom, and by, at the same time, bearing in mind the often-proved results attained by due precautions and improved treatment, we may justly give that very decided and conditionally hopeful advice which is most likely to meet with obedience and to be followed by corresponding success.

(To be continued.)

(b) In cases of fatal hæmoptysis, with very few exceptions, aneurism or erosion of a branch of the pulmonary artery has been found post-mortem at the Brompton Hospital. In some of these cases there had been previous attacks of hæmoptysis of the same character as the fatal one, while in several of them other vessels were found broken across, and occluded only at the very points of the fragments. Other observers (notably Dr. Rasmussen) have insisted on the frequency of pulmonary aneurisms in fatal hæmoptysis.

(c) *Compte-Rendus*, p. 759, 1864.

(d) Having redistributed the many diseases collected together by Laennec under his comprehensive term "tubercle," we must beware lest, in our criticism of the symptoms attached by Laennec to the disease tubercle, we do not make sufficient allowance for our very restricted use of that term.

NOTES ON

INHALATION, FOMENTATION, DISINFECTION, ETC., WITH MEDICATED STEAM AND VAPOUR

By J. WILLIAMS, M.D.

In general practice we meet with numerous throat and chest affections, and also some forms of neuralgia, where urgent symptoms seem to require the use of some local agent acting more directly upon the parts affected than the ordinary administration of drugs by the stomach can possibly do. The difficulty is increased where inability to swallow is added to the other symptoms of the case, and makes it next to impossible to introduce any internal medicines. In quinsy, common relaxed throat, inflamed tonsils, some cases of diphtheria, laryngeal, tracheal, and bronchial affections, as well as in ulcerations of the pharynx, etc., this mode of medication by inhalation is peculiarly effectual. In numerous asthmatic and pulmonary affections, with deficiency of secretion from the mucous lining, I have seen more benefit derived by the plan of local medication than by any medicines given in the usual way.

It will be quite evident, upon consideration, that expectorants—such as squills, ipecacuanha, lobelia, digitalis, antimony, and other drugs—must, even after elaboration with the food, produce nausea, with loss of appetite, even if we wait for their arrival by the circuitous route of the circulation of the blood to the part affected. Moreover, when it is considered that Majendie established by undoubted evidence and experiment the fact that medicated gases and atmospheres produced, when inhaled, very rapid and certain effects upon the blood, and can be detected in many instances in that fluid, after even one inspiration, it seems remarkable that the Profession should not have availed themselves more extensively than they have hitherto done of the avenue thus existing for the introduction of medicines into the system.

The knowledge of these facts has induced me to make numerous experiments with medicated vapours; but with the ordinary inhaler I have found that in the use of hot water (either simple or medicated), without a lamp to sustain the heat, the vapour or essence very quickly subsides as the fluid cools down; and, as a matter of course, this takes place more rapidly in winter (which is the time it is most required, as a rule) than in warmer weather. The use of atomised fluids, as described by Beigel in his excellent treatise, appears to me also a very partial application of the remedies in many of these local affections, especially those of the air-tubes and pulmonary tissues themselves, though I do not for a moment undervalue his system for purely pharyngeal and laryngeal complaints.

A more complete investigation of the subject has enabled me to construct an inhaler, with a lamp, which fulfils nearly every possible requirement for all parts which we have mentioned, and certainly combines many points of importance unattainable by any other system with which I am acquainted. My invention enables the Practitioner to introduce nearly all the substances and fluids which could be given by the atomiser, and at the same time continues the inhalation of all vapours and medications at a uniform heat to the lungs and breathing surface, fomenting, as it were, the whole mucous lining of the air passages, which has a very important and soothing influence. The influence upon the nervous system is equally certain in spasmodic cough; and in nervous asthma, especially, the action is very striking and satisfactory. I may mention that volatile substances, such as camphor, carbolic acid, hyssop, anthemis, etc., are peculiarly efficacious and agreeable when introduced in the form of vapour, which, by the arrangement I have proposed, does not in any way interfere with the digestive organs. In fact, if any doubt could possibly exist as to the action of medicated inhalations upon the system, the common daily use of chloroform, nitrous oxide, methylene, etc., would answer the question in the affirmative. Besides, the introduction of poisonous gases—hydrocyanic and carbonic acid—are well known to be rapidly fatal in this mode of administration; therefore, by a parity of

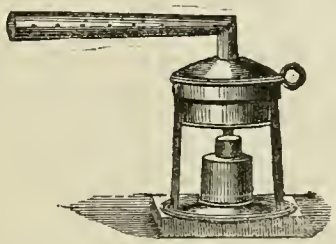
reasoning, we may assume that the introduction of vaporised medications must, if pursued and investigated, become an extremely valuable means for the introduction of numerous medicines into the human body.

In localised neuralgia, face-ache, ear-ache, etc., a jet of steam directed against the part affected gives almost instantaneous relief, entirely superseding fomentations, mustard, and other burning plasters: these latter remedies, in many instances (in my own experience), serve only to increase the original pain. After the action of the steam-jet, the part affected may be gently rubbed with chloroform, aconite, or camphor liniment, to prevent undue action upon the skin by damp, cold air, etc.

As a disinfecting and fumigating agent I find this lamp superior to all other means, as the chemicals are converted into subtle vapour, which seems instantly to destroy unpleasant odours in the sick-room, and in a far more perfect manner than by sprinkling the fluids or powders about the room.

Directions for Using the Inhaler or Fomenting-Lamp.

Having first fixed the wick in the lamp, pour into it about an inch deep of methylated spirit; then in the pan over the flame place about half a tumbler of warm water, and in the perforated plate a few herbs, such as hyssop, senega, camomile, pennyroyal, etc. These may be used several times without renewing. The apparatus now being ready for use, light the spirit-lamp, and as soon as the water boils a stream of medicated steam will issue from the spout. As the steam would be too hot next the spout, it is better to use a tin or paper tube, expanding to about two inches at the open end. This tube has holes in it to allow the atmosphere to mix with the steam. By this arrangement, and by turning the holes round, the temperature may be very nicely regulated. As the



Lamp-inhaler, made by Mr. Sparkes, Malvern.

steam ascends rapidly, the open end must be held below the mouth or part to be acted upon, and at a little distance from it. A folded piece of paper from the tube resting on the nose, or a loosely rolled tube in the mouth, in some cases is an extra advantage, and excludes the vapour from the eyes, if desired; but in many cases it is of most service when inhaled rather hot. In using carbolic acid and some other ingredients it is better to add them to the water before applying the lamp-flame to it. The tube used for conveying the steam has holes in it; these should be turned round to the lower side, but, if too hot, brought half round, and if required still cooler, to the upper side.

Malvern.

ON A CASE OF

SUPPURATING BUBOES WITH DIFFERENT PLANS OF TREATMENT.

By ALFRED S. BOSTOCK, M.R.C.S.

SUPPURATING buboes being of so common occurrence, I thought the notes of the following case might be interesting to the readers of the *Medical Times and Gazette*:—

A coolie woman was admitted by me into the Colonial Hospital, Trinidad—when I had charge—with a suppurating bubo in each groin.

On May 16 I opened one of the buboes with a curved bistoury, and as I knew by that process buboes were a long time in healing, I determined to try another plan on the other side; therefore, on May 19, I opened the other bubo with a trochar and canula, and by that means evacuated the contents; then I injected a solution of sulphate of zinc, gr. iv. ad. ʒj., and put on pressure with some lint in the form of a pad covered with a bandage. On the following morning there was occasion for an aperient, and the ordinary black draught was administered.

May 21.—I removed the dressing, and found some very thin purulent secretion, which I pressed from the bubo by the aperture made when removing the canula. I then replaced the bandage over a fresh pad of lint. There was no complaint of pain during this treatment.

24th.—The bubo opened with the trochar was quite healed up. The other bubo was looking very healthy.

26th.—On pressing the bubo a thin serous-looking fluid came out at the opening left by the canula.

28th.—The bubo was quite healed. So that this bubo healed in nine days; whereas the bubo which I had laid open with the bistoury was not healed until July 4, taking in all fifty days.

Midhurst.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

THE LONDON HOSPITAL.

SYPHILIS INOCULATED ON THE HAND, BY SCRATCHING THE KNUCKLE AGAINST AN OPPONENT'S TOOTH.

(Under the care of Mr. HUTCHINSON.)

WE saw the other day a remarkable case under Mr. Hutchinson's care, illustrating one of the many unusual modes in which syphilis may be acquired.

The patient, a policeman, aged about 30, at present has a very copious secondary syphilitic eruption of the mixed tubercular and squamous types, and in some parts, especially on the lower extremities, tends to become rupial. He states that it has been out for about five weeks. He denies having had any sore on the usual position, and a careful examination of his genitals convinced Mr. Hutchinson that no trace of a chancre existed there; and the same remark applies to his mouth and lips. There are no enlarged inguinal glands. On searching for a chancre in other parts, Mr. Hutchinson found an open sore on the dorsal surface of his right middle finger, near to the meta-carpo-phalangeal joint; it is now of irregular shape, about as large as a fourpenny-piece, and does not present any induration characteristic of syphilis. He was also found to have a bullet-like enlargement of the axillary glands on the same side. On being questioned as to the origin of the sore on the finger, he stated that it originated in a scratch made by the tooth of another man, whom he struck in the mouth with his closed fist while taking him prisoner; this was about three months ago. He noticed that he made the man's mouth bleed a little, but cannot say whether there were any sores about his mouth or lips. The scratch on his finger bled slightly at the time. It healed up, but remained for some time (as he expressed it voluntarily) "a hard substance," and red; it then ulcerated. The sore is now rapidly healing.

Anyone interested in seeing the man will be able to do so on Monday next (11th inst.), when Mr. Hutchinson will give a clinical lecture on the case, at two o'clock.

UNIVERSITY COLLEGE HOSPITAL.

TWO RARE FORMS OF SYPHILIS: ONE TREATED BY IODIDE OF AMMONIUM, THE OTHER BY IODIDE OF POTASH.

(Under the care of Mr. BERKELEY HILL.)

Case 1.—A lad of 17 had had for years pains in his shins, and for months similar pains in his elbows and collar-bones, worst a night, when they often kept him awake; they were represented as an aching and a sense of weakness in his legs by day. His parents being dead, no history of the lad's infancy could be obtained, but the corneæ had opacities, the irides were irregular, the bridge of the nose sunken, and there were scars along the neck, beneath the jaws, where he said he had had abscesses when a boy. The teeth were of normal shape. Though soft nodes were present on the clavicles and ulnæ, the most remarkable alteration existed in the tibiæ. These were bowed forwards in a regular sweep from the knee to the ankle, the curve being partly due to actual bending of the bones, but chiefly to

thickening of the periosteum along the shins. The epiphyses were not enlarged, nor the joints distorted. The lad had been treated for scrofula, with iodide of iron, cod-liver oil, etc., without benefit, and iodide of potash, it was said, had been tried in vain. This being so, he was ordered to take iodide of ammonium in eight-grain doses three times daily. This was followed by improvement; the pain soon left, and in a fortnight the soft nodes had almost subsided. Since then the lad has grown strong and active, though the tibiæ are, of course, still distorted.

Case 2.—The next case is that of a boy, aged 8, who came to the Hospital with aphthæ of the mouth, superficial ulceration of the gums, and a deep sinuous ulcer along the dorsum of the tongue, which was lined with dirty sloughy matter. The boy was ill-fed, thin, and pale; he had also severe photophobia. The corneæ were muddy, the conjunctival vessels enlarged, but no more decided traces of corneitis were detected. The teeth, nose, and complexion had no syphilitic character, and the mother said his infancy had been healthy. As the lad's condition might be due to debility and starvation, though the probability of a syphilitic origin was not forgotten, the lad was first treated on general principles. The ulcers were touched with strong solution of nitrate of silver; a wash of chloralum gr. x. ad. ℥j.) for the mouth, and quinine with iron, cod-liver oil, and nutritious diet were ordered. Ten days elapsed while this treatment was continued, and though the mouth got cleaner, the ulcer of the tongue had enlarged; the eyes remained pretty much the same; iodide of potash in four-grain doses was then given, and all the other remedies abandoned. At his next visit, four days afterwards, the tongue was healing, much less swollen, the soreness gone, and the boy's appearance somewhat better, though the photophobia continued. Five grains were this time given, and in ten days after the iodide had been commenced the tongue was well. The eyes, however, had advanced; iritis and increased opacity of the corneæ were evident; for this special treatment was directed, while the iodide was continued.

WEST LONDON HOSPITAL.

COMPOUND FRACTURE OF THE ANKLE-JOINT—AMPUTATION—RECOVERY.

(Under the care of Mr. TEEVAN.)

J. D., aged 48, a healthy-looking man, following the occupation of stationer, was admitted into the Hospital at 7 p.m., August 5, with a compound fracture of the right ankle-joint, which occurred through missing his footing in descending from the roof of an omnibus. On admission the patient was found to have a good pulse, which probably might be accounted for by the little blood that was lost, but the foot was almost at right angles to the leg, and the ankle-joint was exposed on the inner side by a crescentic wound four inches long; the internal lateral ligament, the anterior one, and posterior also seemed quite destroyed, so that the foot appeared attached to the leg by the integument and external lateral ligament only. The patient was seen by Mr. Teevan the same evening at 10 p.m., and as he had completely rallied, Mr. Teevan removed the foot just above the ankle-joint, making a long anterior flap and a short posterior, utilising the crescentic wound on the inside. Very little blood was lost at the operation, as the tissues had been extensively ruptured subcutaneously. The after-progress of the case was uninterrupted by a single drawback, and in the first week of September the wound was quite healed, and the patient left the Hospital a few days later with a good firm stump that was even then able to sustain pressure. The line of cicatrix was almost removed from the face of the stump, as its covering was entirely made up of the long anterior skin-flap.

An examination of the foot showed that all the ligaments at the ankle-joint were destroyed, with the exception of the middle piece of the external lateral; the lower end of the fibula was broken up into six pieces.

INJURY TO FOOT—CHOPART'S OPERATION—RECOVERY.

(Under the care of Mr. TEEVAN.)

D. H., a pale, unhealthy-looking labourer, aged 20, was admitted into the Hospital, on February 2, for an injury he had sustained to the anterior part of his left foot, which had been crushed a few days before by an engine. When he was seen by Mr. Teevan, on February 4, there was such an amount of local and constitutional disturbance as to entirely preclude any operative procedure. The skin and nails had been torn off the great-toe and the two adjoining toes, the metatarsal bones of all the toes except the little one had been fractured in several places, and the tendon of the extensor pollicis had been torn off at its insertion, and for several inches exposed. The whole of the foot was much swollen, and the integuments over the instep looked tense and inflamed. As the patient was suffering from irritative fever, Mr. Teevan ordered his bowels to be well opened, and to have full doses of chloral given him every night. On February 15, the skin over the great-toe and up to the middle of the metatarsal bone had become gangrenous, and in the course of a week had involved the other toes, with the exception of the little one. The patient's constitutional condition, however, had been slowly improving, his pulse had become quiet, and his tongue had nearly lost its brown appearance; his nights, too, were good. By March 2 it was clear that the healthy integuments were becoming separated from the gangrenous, by a distinct line of demarcation across the highest part of the instep.

On March 9 Mr. Teevan amputated the foot by Chopart's method, the patient being under chloroform. The integuments were considerably infiltrated, and there was very free bleeding from the surfaces of the flaps, which was checked by firm bandaging. On the following day the flaps were united at their edges by the silver wires which had been passed through at the time of operation. The sutures were allowed to remain in for nearly a fortnight, as there was much swelling of the stump and a tendency to eversion of the lips of the wound. The patient's convalescence was slow, and when he left the Hospital on April 20 there was still a narrow line across the face of the stump which had not healed. Ten days later cicatrisation was complete. The face of the stump was made up almost entirely of the posterior flap.

Remarks on both Cases.—Mr. Teevan stated that one great object to be attained in this kind of operations was, so to fashion the flaps that when union had taken place the line of cicatrisation should not, if possible, be on the face of the stump, but removed either forwards or backwards. In both cases that object had been carried out; for in the first case the line of union had been carried to the posterior edge, and in the second it had been brought forward to the anterior edge.

EDINBURGH ROYAL INFIRMARY.

CASE OF FIBROUS POLYPUS OF THE UTERUS—REMOVAL BY EXCISION.

(Under the care of Dr. DUNCAN.)

[Communicated by Dr. J. R. HARDIE.]

A. R., aged 47, married, has had four children—the last child six years ago; never had an abortion or miscarriage. She was admitted into Ward 16, October 16, 1871, complaining of occasional pain in the lower part of the belly, a discharge (which she described as being generally red, but sometimes white in colour), and difficulty in walking. Patient enjoyed good health until four years ago, when her present illness commenced. She first became aware that there was something wrong with her on noticing that at the monthly periods she lost more blood than usual. The periods, however, were not more than a week in length, which was the ordinary duration of her natural illness. Previous to this circumstance her menstruation had been regular and healthy in every other respect. About two years ago A. R. began to be subject to a white discharge during the interval between her monthly periods. This has gradually become greater in quantity, and is frequently replaced by a red-coloured discharge. On physical examination per vaginam, the vaginal canal was found to be occupied by a hard, smooth, rounded mass, about the size of an orange of ordinary dimensions. It protruded through the cervix uteri, which was dilated around it. A pedicle was observed to pass from the tumour through the dilated cervix uteri into the cavity of the body of the uterus.

October 26.—It was decided to remove the polypus to-day. For this purpose the patient was placed on her left side on a conveniently high table, and Dr. Duncan, seizing the polypus by means of a volsella, cut through the pedicle with a pair of strong curved probe-pointed scissors. The volsella was entrusted to an assistant, who pulled on the tumour downwards in order to bring its pedicle within reach of the operator. The polypus was, however, not pulled down beyond the orifice of the vagina. There was little bleeding. Before performing this operation, the probe was introduced into the uterus. It was observed to pass three inches and a half. Immediately

after the removal of the polypus—on examination per vaginam—the uterus was found to be occupied by a fibrous tumour.

27th.—Patient passed a good night, and has had no bleeding; she had a slight discharge on rising to make water.

30th.—Uterus feels large; probe enters three inches and a half

November 5.—Discharged to day.

Of the various kinds of polypi which affect the uterus, the fibrous polypus is the most important. It more than any other variety renders the subject of it liable to depraved health. From the hæmorrhage and leucorrhœa which its presence for any lengthened period entails, the patient gradually becomes exhausted, or a fatal issue may ensue from a more than ordinary large bleeding. In some cases, however, fibrous polypi give rise to no symptoms whatever; their presence may be unsuspected by the patients themselves, and they may be detected by the Physician while conducting an examination for other purposes. Dr. Duncan recognises two varieties of the ordinary fibrous polypus—the true and the false. The former possesses an external investment of mucous membrane identical with that lining the cavity of the body of the uterus; within this is a covering of muscular tissue. Occasionally this second envelope cannot be detected over the whole surface of the true fibrous polypus. The latter, or false fibrous polypus, Dr. Duncan considers to be merely a fibrous tumour which is undergoing the process of spontaneous enucleation; it has, therefore, no covering of mucous membrane, and is attached to the uterus by muscular tissue. Excision is the method of removal almost invariably employed by Dr. Duncan. Contrasted with other modes, it is at once simpler, more efficient, and attended with less risk to the patient. Hæmorrhage after this operation is very rare—it scarcely ever occurs immediately after the excision, certainly not to any great extent—but an oozing of blood some hours afterwards is not so uncommon; this is readily arrested by the local application of the perchloride of iron. The results of this operation are highly satisfactory. In cases where the polypi are very large, and require a great degree of force to be used in order to extract them from the genital passages, there is danger to the person operated upon; but in the great majority of cases of polypus of ordinary size removed in this manner, the risk to life is very small, the patient being able to go about in a week or ten days afterwards. In the case described, although the uterus contained one or more fibrous tumours, A. R. was out of bed on the fifth day, and proceeded home—a considerable distance by rail and steamboat—nine days after the operation. An independent feature of the case under discussion—namely, the presence in the uterus of fibrous tumours—is worthy of remark as illustrating incidentally the great value of the uterine sound to gynæcologists. Their presence was suspected while Dr. Duncan was perfecting his diagnosis by introducing the sound: it was observed to enter three inches and a half—a greater length than it would be expected to pass if the hypertrophy of the uterus was solely owing to the presence of the polypus. Subsequent internal and external examination by the finger and hand revealed the presence of the fibroid. In this case the Physician was enabled to warn the patient that her cure was not complete, and to desire her to return again in order to ascertain if one or more of the tumours might not be removed by enucleation or otherwise.

ANTIDOTE TO CARBOLIC ACID.—Dr. T. Hasemann, from numerous careful experiments, both chemical and medicinal, advocates the use of a strong solution of saccharate of lime, of course to be taken as soon as possible.

THE LATE MR. DE LA GARDE.—At the last monthly meeting of the Committee of the West of England Eye Infirmary the following resolution was passed:—"The Committee desire to record their sense of the great loss which the Eye Infirmary has sustained in the demise of its Senior Surgeon, Mr. P. C. De la Garde, F.R.C.S. His devotion to its interests continued to the latest moment of his life. His eminently skilful treatment of diseases of the eye, and his anxious solicitude for the welfare of the patients, to whom his kindness of manner greatly endeared him, combined, during the long period of thirty-five years, to render Mr. De la Garde a most valuable officer to this institution. His death is felt by the Committee to be an event that calls for an expression, on their part, of sincere regret at their loss, and at the same time of their cherished recollection of his eminent services to this Infirmary."

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Medical Times and Gazette.

SATURDAY, DECEMBER 9, 1871.

THE ILLNESS OF H.R.H. THE PRINCE OF WALES.

THE Prince of Wales is now in the fourth week of the severe attack of typhoid fever under which he is labouring. Professional readers will know that this is necessarily a period of great anxiety. It is about the time when any sloughs which have formed during the ulcerative process in the intestinal mucous membrane are separating, and when, therefore, two of the great dangers in typhoid fever—hæmorrhage and perforation—are most to be dreaded. Still, it is most satisfactory to know that the Prince is thus far progressing favourably, and is certainly in a much better condition than he was on Thursday and Friday last week. On the latter day his temperature rose to 105·6°, and his condition was undoubtedly very grave. In a few hours, however, the temperature again fell, and it has since remained at a much lower standard, falling in the morning below 100°, but rising towards night. The pulse averages about 96 in the minute. Notwithstanding all the enormous drain on his constitutional powers, however, it is gratifying to be able to state that the Prince's strength continues good. Of course, he is still very ill; the functions of the sensorium are not fully restored, and days, if not weeks, must elapse before he can be pronounced out of danger. But, considering that his Royal Highness has thus far withstood the brunt of the attack, that he has an excellent constitution, fortified by an active life of out-door exercise, and that this week there has been a decided and progressive amelioration in his worst symptoms, we are warranted in affirming that the prognosis is decidedly favourable.

The proof that the fever was contracted during the Prince's stay at the Earl of Londesborough's receives further confirmation from the fact that a man-servant, who was in Lord Londesborough's house during the Prince's visit, is now in London suffering from typhoid fever. It is easy to conceive that the very means taken to insure the perfect salubrity of the house may have led to a temporary escape of sewage matters. It would not be the first time that having the drains of a house put to rights has been followed by an outbreak of enteric fever. The Profession and public will hardly be satisfied with the report of the architects on the condition of Lord Londesborough's house. To us it appears very unsatisfactory. It would be to the interest of Lord Londesborough to have a searching investigation made under the direction of the Medical Department of the Privy Council. The suspicion that the fever was contracted in his house almost amounts to a certainty.

Three adults, in perfect health, who were visiting there, were simultaneously attacked, and there can be no reasonable doubt that they were exposed to one and the same cause.

The Earl of Chesterfield died, most probably, from perforation of the bowels. Up to the day of his death he was progressing most favourably—his pulse was quiet, and his temperature not much above 100°; when suddenly his temperature rose three or four degrees, the abdomen became tympanitic and meteorised, profuse perspiration supervened, and he died in two or three hours. As there was no post-mortem examination, and no alvine evacuation, it is uncertain whether there had been internal hæmorrhage. The character and sudden accession of the symptoms pointed to perforation.

In reference to the illness of his Royal Highness, we may remark that his chances were doubtless much improved by the careful Medical treatment to which he had been subjected when suffering, during the week previous to the accession of fever, from suppurating whitlow, which threatened to attack both hands. The attack of shivering which ushered in the fever commenced on November 13, but for a week previously he had been under Medical guidance.

A remarkable fact in proof of the fæcal origin of typhoid fever has lately been observed. An eminent London Physician has been called to visit in consultation the inmates of a religious house, forty-two of whom have been struck down with typhoid fever since November 1. The cause of this outbreak was traced to a drain which had been opened up, and a grating fixed in it, to prevent rats making their way into the house. The result was that all the solid excrementitious matter was kept back, and accumulated in the basement of the building and yard, and there was distinct leakage into the house. Sixty baskets of sewage were removed from the house side of the grating, and in close proximity to it was a well which supplied the house.

The groom at Sandringham who has been suffering from typhoid fever came there direct from Scotland on October 20, and was not at Scarborough with his Royal Highness. On November 24 he had rigors for the first time. On the 25th rose-spots were present. He had severe symptoms at the commencement, but has steadily improved, and is going on well. There have been no other cases at Sandringham besides hose of the Prince and the groom in question.

PROFESSOR LAYCOCK'S LECTURES.

In our first volume for 1862, we had the pleasure of publishing an important series of lectures on "Physiognomical Diagnosis," by Dr. Laycock, Professor of the Practice of Medicine in the University of Edinburgh. During the current year it has been, further, our good fortune to publish another series of Dr. Laycock's lectures, comprising the "Method of Clinical Observation of Diseases of the Nervous System," and "Systematic and Practical Consideration of the Influence of the Nervous System on Diseases of Organs and Tissues." These, and minor contributions which have at intervals appeared in our columns, embrace a variety of views so original and suggestive, and of such high importance to the Profession and to the Practice of Medicine, as to merit special consideration.

The first and most important point is the method by which Dr. Laycock has worked out his views. Careful clinical observation has led the Professor to the conclusion that diseased states of organs and tissues are reversions or degenerations to a lower form of evolution of tissues and organs. Hence, the principle of evolution may be said to be the key to his pathology—from mental derangements at the one extreme, to the production of uric and lactic acid at the other.

It is right to observe, however, that this method has been followed by Dr. Laycock long before the recent discussions as to evolution, to which the promulgation of the Darwinian doctrines has given rise. It may be traced in Dr. Laycock's earliest works—as, for example, in his treatise on the "Nervous Diseases of Women," published in 1840. His early doctrines regarding the reflex function of the brain are specifically founded upon the doctrine of evolution. His lectures on "Physiognomical Diagnosis," published in our journal in 1862, afford numerous illustrations of this point. We specially refer to the lectures on the "Degenerations of the Nervous System, and the Definition of the Strumous Diathesis." In these will be found illustrations of reversion to both lower races of man and lower animals. The doctrines regarding diathetic diseases which Dr. Laycock has introduced into the study of Clinical Medicine differ widely from those current, inasmuch as they are founded on the evolution of tissues and organs, and have, therefore, a solid basis in histological anatomy, instead of merely the course and symptoms of diseases. Thus, for example, when Trousseau speaks of an asthmatic diathesis, referring to a symptom, Dr. Laycock would speak of vesicular emphysema complicated (or not) with pneumogastric hyperæsthesia, in a person of the atheromatous and nervous diathesis. Those who have witnessed Professor Laycock's treatment, as based upon these wide philosophical principles, can testify to the great advantage which therapeutics have derived from their introduction into the clinical practice of Medicine. By a consideration of diathetic principles, medicines formerly administered with great doubt can now be administered less doubtfully, and diseases uncontrollable by ordinary routine treatment more readily succumb to the influence of diathetic remedies. In the exercise of diagnosis, also, Dr. Laycock's intimate knowledge of the physiognomical appearances, based on evolutional anatomy, which characterise each respective diathesis, combined with a clear understanding of the tissues which are liable to be affected in each, is used by him as an accurate guide to sound and definite conclusions. Former pupils of Dr. Laycock must recall repeated instances of correct diagnosis based exclusively upon such considerations, and amply confirmed by oral, physical, and post-mortem examination. Perhaps the best illustration of this point is the arrangement of the various forms of diathetic phthisis founded on the particular tissue of the lung involved, of which Dr. Laycock is the author. Thus, the rheumatic form of consumption is that in which there is the greatest tendency to fibroid degeneration of the parenchyma of the lung.(a) This has since been discussed under the name of "fibroid phthisis." Not less important is his diathetic diagnosis of pulmonary hæmorrhages, in which he not only distinguishes rheumatic pulmonary hæmorrhages from other and more dangerous forms, but indicates the influence of the nervous system on the production of pulmonary hæmorrhages and of hæmorrhagic phthisis as a distinct form.

Another important point to which we would direct attention is, the result of Dr. Laycock's method in the classification of skin diseases, according to the tissues affected in each group. Such an arrangement not only simplifies diagnosis, but connects intimately the skin affection with the diathesis which predisposes to its development. Dr. Laycock represents the skin as a complex secreting and excreting viscus, expanded in such a manner as to display its different elements, and associated with structures homologous with protective appendages. He looks upon the pathology of the skin as of special importance, as it may to a certain extent be regarded as a convenient and typical representation of the pathology of other viscera. He bases his classification on the threefold nature of the tissues, which, each or all, may be affected. These are the mucous, vascular, and fibrous or connective, including the muscular tissue. Along with these primary textures he classes the products which have their origin in each. He traces an intimate relation between leprosy, syphilitic affections, and some forms of psoriasis, based upon the diminution in sensibility which characterises each; and upon historical and

(a) See *Medical Times and Gazette*, April 5, 1862, and May 3, 1862, p. 451.

evolutional grounds, which corroborate the existence of such a relationship.

But we must not omit to mention another result of Dr. Laycock's method—namely, the elucidation of physiological laws by clinical research. It is in this way that he has formularised clinically a trophic nervous system. He has called attention to the fact that the unity of function of the trophic system over an extensive and complex series of areas suggests the idea that a trophic centre, or series of centres, must exist for the maintenance of so conspicuous a harmony. He teaches that there are distinct cerebro-spinal centres set aside for the regulation of distinct trophic areas. It must be admitted that this view, applied clinically, not only throws considerable light on many obscure diseases, but dispels various erroneous views. For instance, by demonstrating the direct influence of the nervous system on nutrition, and on the production of diathetic diseases like gout and rheumatism, he shews the true nature of metastasis. Regarded from his point of view, the doctrine of a transference of *materies morbi* from one part of the body to another becomes untenable. An appreciation of the facts that, first, the morbid products are produced in the tissues themselves, and, secondly, that the products in the tissues are due to various conditions of the nerves and nerve-centres, leads to a clear perception of the true nature of metastatic phenomena.

From this point of view the therapeutical doctrine of "elimination" passes into the region of the mystical. This point is particularly illustrated by Dr. Laycock's theory of the causation of dropsies, and the phenomena of so-called "serous metastasis." He has proved by clinical facts that dropsical effusions do not result, as is generally held, merely according to the action of physical laws, but that the nervous system primarily influences the condition of both the capillaries and the lymphatics—thus both causing and inhibiting dropsical effusions. He, therefore, classifies reflex and centric forms of dropsy, which are totally inexplicable except on the principle of nervous causation.

Closely allied to metastasis is the process of "counter-irritation." Dr. Laycock shews clearly that this involves, not merely a local action, but a trophical alteration, produced by the influence of the central trophic system. Extend to the trophic system the laws of reflex action, and it will be found that influences conveyed to a definite nutrient centre result in a reflex production of those local changes which have been recognised as characteristic of counter-irritation. When sensibility is impaired, counter-irritants sometimes act with great intensity in very brief periods. This depends upon the fact that impairment of sensibility implies to a certain extent a loss of that central energy by which the body resists the inroads of disease.

Guided by the law of evolution, Dr. Laycock works out a still more interesting point in therapeutics. Many years ago the late Dr. Turner, Professor of Chemistry in the University of London, and Sir Robert Christisen, made experiments on plants with opium and similar drugs. They showed that a community of influence of the drugs existed as to the tissues of plants and animals. According to Dr. Laycock's method, the motor *vis nervosa* is an evolution of vital energy, manifested in the tissues of plants as well as animals, and the sensory *vis nervosa* is an evolution of the directive and "purposive" qualities also shown in plants as well as in animals—in short, in all living things. Hence it follows that drugs believed to act exclusively on the nervous system, according to Dr. Laycock's views, act also on the tissues. In this way he explains the action of strychnine in certain forms of vesicular emphysema with bronchitis, and refers to colocynth, aloes, senna, wormwood, and camomile as drugs possessing a combined action on the tissues and the nervous system. It is obvious that such a principle must modify all our therapeutical views.

We have not space to dwell on other points, but we may refer briefly to the views promulgated by Dr. Laycock as to the evolution of the trophic nervous system into sensorial centres, which regulate the appetites for nutrient materials. It is well known to physiologists that plants select suitable nutrient material, independently of a nervous system. In animals, these trophic centres for the appetites direct the selection of suitable materials both in health and disease. Morbid sensorial conditions of these centres, as Dr. Laycock shows, are very well illustrated by the thirst, bulimia, pica, and anorexia manifested in diabetes, hysteria, and numerous other diseases and disorders of the nervous system.

In his concluding lectures (August 19 and September 2), "On a Clinical, Trophic, and Vaso-motor Anatomy of the Brain and Cord," Dr. Laycock, guided by the principle of evolution, developes a complete system of neurotic trophic anatomy. Such a wide view must necessarily have its weak points, and no doubt exception may be taken to details; but as a generalisation of great principles, and of laws applicable to pathology and the diagnosis and treatment of cerebral disease, it cannot fail to be found of great value. We know it has been thus applied to epilepsy and its influence on the development of insanity.

CERTIFICATES OF DEATH.

When the Act for the Registration of Births, Deaths, and Marriages was passed, the Government wisely made the issuing certificates of death a voluntary act on the part of the Medical Practitioner. It was wisely determined not to make the giving of such certificate compulsory, but it was left to the good-feeling and honour of the Profession to assist the Government in the very important subject of registration, without fee or reward. The remarkable success of the Registration Act has sufficiently shown that the Government of the day did not over-estimate the good feeling and honour of the Profession. The refusal to give a certificate of death is so rare, that it is amongst the "curiosities of experience" to find one. There can be no valid or just excuse for such refusal, unless in the case where a coroner's inquest is deemed necessary and is not held. Doubts as to the *exact* nature of the disease of which the patient died would not be considered a sufficient bar to the issue of the certificate, though undoubtedly, where doubts do exist, it would be better for science that a post-mortem examination should be made. But it is to be borne in mind that the Practitioner gives the certificate of the cause of death for which he treated the patient, which treatment he had reasonable and rational grounds for employing. We regret to record a case in which the House-Surgeon of University College Hospital refused a certificate of the cause of death of a woman who died in that institution, because the husband would not allow an examination of the body to be made, though the Surgeon declared that he was unable to determine the precise cause of death without such examination. The consequence was, the body remained unburied, and threatened to be of injury to the living. The man, under these circumstances, applied to Mr. Vaughan, the magistrate of Bow-street, for advice in the matter. The newspapers say that, after hearing the applicant, Mr. Vaughan ordered the Surgeon to attend. He arrived soon after, and explained his reason for not giving the certificate. Mr. Vaughan, after addressing the Surgeon severely, directed him at once to make out a certificate, or a summons would be issued. The Surgeon, the report says, did not think he was responsible, but bowed to the decision of the court, and the certificate was subsequently granted. His Worship observed that this appeared an "important question." Yes, a more important question than Mr. Vaughan probably imagines. We should be glad to know on what authority Mr. Vaughan "ordered" the Surgeon to attend. He had certainly no legal power to do so. He might have respectfully requested his attendance; and if he had refused, does Mr. Vaughan attempt to say that he had the power to compel him? Is Mr. Vaughan aware that the Registration Act is permissive or voluntary, and not compulsory on the part of the Practitioner

to give a certificate of death? We regret that he should have made such a mistake. If this case had occurred in the early career of the Registration Act, it is impossible to overestimate the mischief it might have done. An understanding had been entered into between the Government and the Profession, that each should assist the other in carrying out an important Act of Parliament, whose only object was the good of the public. It was stipulated that the services rendered by the Profession should be entirely voluntary, and that there should be no legal power to compel them to act. Imagine a Practitioner, under some misapprehension as to the exact meaning of the Act, refusing a certificate; imagine him "ordered" to a police-court, "severely directed" at once to make out a certificate, and threatened with a summons if he did not comply. Fortunately, the Act is now too well established to be injured either by the foolish refusal of a young gentleman to give a certificate, or the more foolish and not less reprehensible conduct of a magistrate, who seems to have been under the conviction that the law enabled him to compel a Practitioner to give a certificate, when, in reality, it could not. But if such cases were to become common—if the example set by Mr. Vaughan should unfortunately be followed by others—then a great blow and discouragement will be given to the working of one of the most valuable and beneficial Acts that was ever passed by the Legislature. It is too much to expect that we should give our time and labour for nothing in the public cause, and that if we believe we have a good reason to refuse to do that work, that refusal should involve an "order" to appear before a police magistrate, to be "severely" rated, and threatened with a "summons" for not doing that which the law does not compel us to do!

MEDICINE AS A LEGAL STUDY.

There is one feature in the projected education of lawyers under the New Law Association which has our hearty commendation. We allude to the requirement from a candidate for examination that he shall have attended at least two courses of lectures on Medical Jurisprudence. For a long time this rule has been in force in the Scottish Universities, and has been found to answer well. Every man of any experience in our courts of law must have been occasionally struck with the lamentable want of knowledge displayed by lawyers and advocates in cases involving questions of Medical Jurisprudence. This is more frequently observed in cases of contested wills, and in those of criminal lunacy. The lawyers have, as a rule, taken their stand on what may be called the *litera scripta* of the diseased or disordered condition, as if the symptoms of lunacy were like the laws of the Medes and Persians, unchanged and unchangeable. No greater mistake could be made than to accept this as an axiom. And yet, when the scientific Medical witness gives evidence on those fine partitions which divide "great sense" from "madness," how is he liable to be sneered at! How the rough-and-ready cross-examiner can attempt to ridicule him and abase him in the estimation of the audience! In the vast majority of cases, this unseemly proceeding has had its origin in the absolute ignorance of the advocate of what really constitutes insanity. No doubt, in some instances the Medical witness is to blame, particularly if he fence with plain questions, or attempt to evade the responsibility which he has undertaken. Future lawyer-coroners—for this peculiar kind of judge must still be in existence—will derive great benefit from the new regulations to be enforced; and the more they become acquainted with the subject of jurisprudence in its Medical aspects, the more they will find how vast, how important are the advantages to be derived from it—advantages to science, justice, and public safety. When the new regulations of the Law Association shall have had time to come into full operation, it is to be hoped that the unseemly contests which now so often take place in courts of law between advocates and Doctors will cease. Nothing can be more derogatory than these combats to both professions. With a profound knowledge of the requirements of the age, and of the means essential to make the lawyer as useful as possible, and law as great a blessing as it can be to society, Sir Roundell Palmer has urged the necessity of the regulations which we have mentioned. He is entitled to the gratitude of his own brethren, and to the commendation of ours.

THE DUTIES OF POOR-LAW MEDICAL OFFICERS.

We have reason to think that the duties and responsibilities of Poor Law Medical Officers will before long be revised by the Local Government Board.

Our readers are generally acquainted with the duties of the "parish Doctor," and so far as visiting and examining the sick, and prescribing medicine, are concerned, the duty is simple and clearly defined; but upon another point, which we conceive to be of as great or even greater importance—viz., the ordering and regulation of the patient's diet—there is great divergence of opinion and practice amongst the Medical Officers; there is ambiguity in the instructions of the Poor-Law Board; and we believe that the Inspectors under the Local Government Board entertain somewhat different views on the subject. We will first endeavour to explain the view taken by the majority of the District Medical Officers.

In treating of the responsibility of the Medical Officer it is necessary first to distinguish between the cases of patients attending personally at the Dispensary and those attended at their own homes. A patient able to attend personally is first required to obtain a Medical order signed by the relieving officer, who is expected to make every inquiry necessary to determine whether the applicant is really a pauper. It is the obvious duty of the Medical man, upon receipt of this order, to investigate the Medical aspects of the case, and to prescribe suitable medicine. An important question then arises as to the patient's diet. The usual practice is to make no inquiries on that point, unless the patient (himself or herself) ask for nourishment. In that case, the Doctor is not supposed to order the ordinary and common articles of food—for example, bread, milk, sugar, oatmeal, butter, and tea; he is expected to assume the existence of these necessaries, and, upon that assumption, he proceeds to order such additional medical extras as he may think fit—those extras being generally limited to meat, wine, and spirits, and occasionally eggs, arrowroot, and milk.

We fear that the above-named assumption—viz., the existence of common necessaries—is very often mistaken. Responsibility on that point is generally supposed to rest with the relieving officer; but we think the practice requires to be more definitely settled. That the Local Government Board will take a view of the Medical Officer's responsibility different from the one usually entertained is probable from a circumstance which has come to our knowledge.

Mr. Corbett, Government Inspector, invited representatives from the guardian boards of the metropolis to a conference on Monday last on the subject of out-door relief. Mr. Corbett then submitted a number of propositions to their consideration, and amongst others he proposed that a Medical Officer seeing patients at the Dispensary should not order any kind of food or stimulant, however satisfied he may be of the Medical necessity, without first making a visit to the patient's home, and entering upon a careful inquiry into the means of the patient, in order to satisfy himself that the patient is unable to procure such things at his own expense.

There can be no doubt that the investigation suggested by Mr. Corbett is a necessity; but we deprecate the imposition of such inquiries upon the Medical Officer. The patient, be it remembered, brings to the Medical Officer a certificate that he is a pauper, and therefore presumably unable to procure the

necessaries of life, much more such additional comforts as may be rendered necessary by disease; moreover, it is at present held by every relieving officer that the order of the Medical Officer is to be regarded simply as a recommendation or certificate of Medical necessity, subject to subsequent inquiries as to the ability of the patient to procure the necessaries or comforts ordered. The relieving officer reserves to himself the right of granting or withholding those articles upon further inquiry.

It is quite evident from Mr. Corbett's suggestion that he takes a different view of the responsibility of Medical Officers; for if it be the duty of the Medical Officer to visit and personally inquire into the circumstances of the patient before certifying the Medical necessity of meat and wine, then the certificate must have the force of an order, and not be subject to subsequent inquiry on the part of the relieving officer—if not, there will be a constant conflict of opinion, and the Medical Officer will be degraded to a position of subordination to the relieving officer.

We are very far from thinking that a thorough investigation is carried out under the present system. The time of the relieving officer is so completely taken up in keeping the complicated books—which are probably quite necessary—that he cannot find leisure sufficient to visit and inquire into the circumstances of all persons who apply for a Medical order; and his duty in this respect is undoubtedly very much neglected. It is equally certain that if a Medical man be required to visit the homes of all patients who present themselves at the Dispensary, and enter into personal investigation of their means, it will be absolutely necessary—at least, in metropolitan districts—that the Medical Officer should devote the whole of his time to parish work, and, as a consequence, that he should be properly paid for his services.

We will now speak of the sick poor visited and treated at their own homes. Under the present system an order is presented to the Doctor requesting him to visit; this order is signed by the relieving officer, who is supposed to have made every necessary inquiry respecting the patient's means. It is also supposed that after the Doctor has made a visit, and ordered some meat or wine for the patient, the relieving officer also visits the sick person, and, after making every inquiry, proceeds to order for the patient the common necessaries of life, and also to furnish the Medical comforts set forth in the Doctor's certificate. Let this be distinctly understood: the Medical Officer assumes, and is legally warranted in assuming, that the relieving officer visits the sick and provides them with necessaries; however imperfectly, this duty is, in fact, carried out.

Now, we most thoroughly agree with Mr. Corbett that the amount of investigation is insufficient, and we think that improvement is required; but we do not think it a dignified or becoming occupation for a Medical man to hunt out information respecting the earnings of the poor. We do think this ought to be done more thoroughly than it is done, not only for the prevention of imposition, but also for the more perfect treatment of the sick. The most important part of the treatment of the sick poor undoubtedly frequently consists in the provision of necessary and suitable diet. We desire, therefore, to extend the powers of the Medical Officer with respect to the ordering of food, and at the same time we would increase the examining power by the employment of special officers, whose sole duty it should be to regularly visit the sick, ascertain the pecuniary position of the patient, and see that the orders of the Doctor as to diet be carried out. The Doctor would then become the chief of a staff, all of whom would labour to solace suffering and effect the cure of disease as quickly as possible, whilst attempts at imposture would be at once detected. A more liberal remuneration to the Medical man would secure the devotion of a larger amount of his time, and prove by no means an additional expense to the burdens of the ratepayer.

THE WEEK.

TOPICS OF THE DAY.

We are not great admirers of the coroner's court. Together with many other old institutions, it is emphatically on its trial. But it is certain that, in the present state of science, pathological and toxicological, the public value of the coroner's court is not in proportion to the number of inquests held, but rather to the number of post-mortem examinations made under the coroner's order. The inquiry, without a post-mortem examination, and the Medical evidence based on it, is, for all real purposes of usefulness, practically nothing better than was the crowner's quest in Queen Elizabeth's time. A court, composed of a presiding officer (who may or may not be qualified for his post, and is tolerably certain to be wanting either in legal or Medical knowledge), twelve petty tradesmen, and the beadle, is not likely to retain public confidence, unless it be understood that its president has the power to obtain the fullest scientific evidence and guidance. Nothing can be more damaging to the court as an institution than the knowledge that the full particulars of the cases brought before it are not to be investigated with all the light that science can throw upon them. This, however, does not seem to be the opinion of the Middlesex magistrates, as the following Report of the Session on November 30 will show:—

"The Committee of Accounts and General Purposes recommended the payment of the following accounts of the coroners of the county:—Mr. Humphreys, for 143 inquests held between October 9 and November, £296 11s.; Dr. Lankester, 139 inquests in the same period, £358 1s.; Dr. Diplock, for 38 inquests in the same period, £87 12s.; Mr. Bedford, for 24 inquests in the same period, £57 10s. 6d. The Clerk of the Peace called the attention of the Court to the fact that, although Dr. Lankester had held four less inquests than Mr. Humphreys, he had incurred a greater expense by 60*l*. This arose from Dr. Lankester insisting on holding post-mortem examinations in almost every case, which appeared to him a very improper application of the public money. Mr. T. Turner said if such a state of things continued the magistrates must communicate with the Home Secretary, with a view to put a stop to it."

We regret to see that the sum of money hitherto subscribed for the Goodsir Memorial Fellowship is only £700. At least £2000 would be needed to found the Fellowship originally proposed. At a general meeting of the subscribers it has been therefore determined to establish a prize, to be called the Goodsir Memorial Prize, which is to be awarded under the following regulations:—

1. The prize to be awarded triennially. 2. To be of the value of £60, or such further sum as the funds may admit, but not to exceed in value £100. 3. The prize to be open to all graduates in Medicine in the University of Edinburgh of not more than three years' standing, and to Licentiates of the Colleges of Physicians and Surgeons of the same standing who have attended within the University the same number of classes as are required for the M.B. degree. 4. That the prize shall be awarded for an essay or treatise containing the results of original investigations in Anatomy, human and comparative, either normal or pathological, or in Experimental Physiology. 5. That three examiners shall be appointed—viz., the Professor of Anatomy *ex officio;* one by the Senatus Academicus of the University of Edinburgh; one conjointly by the Presidents of the Royal Colleges of Physicians and Surgeons. 6. That essays or treatises intended for competition shall be sent in to the Professor of Anatomy not later than March 31 of the year in which the prize falls to be awarded, and that the result shall be intimated on August 1 of the same year. 7. That the prize shall be awarded to the best essay or treatise on a subject embraced by any of the departments of Anatomy and Physiology mentioned in Clause 4; but that if, in the opinion of the examiners, a sufficiently deserving essay or treatise be not sent in, the prize will not be awarded. 8. That a small honorarium be paid to each examiner. 9. That if, after payment of the prize and any reasonable expenses connected therewith, a balance remain, this balance be invested to add to the value of the capital. 10. That the Principal of the University of Edinburgh, the Dean of the Medical Faculty, and the Presidents

of the Royal Colleges of Physicians and Surgeons, be trustees of the capital sum. 11. If from the non-adjudication of the prize or other causes the capital sum should accumulate to an amount greater than is needed to provide for a triennial prize of £100, the trustees and examiners conjointly are empowered to award a second prize should an essay or treatise of sufficient merit be presented."

We regret to have to announce that Dr. Davidson, a promising young Physician, filling the post of Resident Physician to the Middlesex Hospital, has died of typhoid fever.

The Charity Organisation Society has issued invitations for a conference to be held on Tuesday, December 12, at 3 p.m., at the house of the Society of Arts, John-street, Adelphi, to consider the best methods of checking the abuses now incidental to Out-patient Hospital Relief, with special reference to the expediency of extending the Provident Principle. The chair will be taken by W. H. Smith, Esq., M.P., and it is expected that Lord Lichfield, the Right Hon. J. Stansfeld, President of the Local Government Board, Sir Charles Trevelyan, Mr. Kennaway, M.P., Mr. Fowler, M.P., Mr. Randolph Robinson, Dr. Acland, Dr. Sibson, Dr. Fuller, Dr. James E. Pollock, Dr. John Ogle, Mr. Charles Hawkins, Mr. Holmes, and many others will be present. We are requested to intimate that the conference is open to all ladies or gentlemen interested in the subject.

PRESENTATION TO DR. BALLARD.

On Wednesday evening last a meeting of the Medical Practitioners of Islington was held, for the purpose of presenting to Dr. Ballard, the late Medical Officer of Health of that parish, a Ross's microscope, with the needful appurtenances in the shape of objectives, eye-pieces, etc., in token of their appreciation of his services during the fifteen years that he has held that appointment. The meeting, which was held at the residence of N. H. Clifton, Esq., very emphatically recognised the value of Dr. Ballard's labour in carrying out sanitary measures, and in tracing out the sources of disease, as well as in suggesting the means of disarming the virulence of epidemics. The microscope, which bore on its stand a suitable inscription, was presented by W. Harvey, Esq., in the name of the subscribers. This is what should be. The Medical Practitioners of Islington have only done justice to their good sense and good feeling in thus giving evidence of a grateful recognition of a difficult service faithfully and ably performed, giving entire satisfaction, through many of the best years of a life that has ever been devoted to the prosecution and advancement of Medical science.

SURGEON-MAJOR WYATT AND THE DUBLIN TRIAL.

We are always glad to set ourselves and our readers right in any case involving a matter of fact. In some remarks we made in the *Medical Times and Gazette* for November 25, respecting some documents which had appeared in the *Times* on the treatment of Constable Talbot's gunshot wound at Dublin, we intimated that perhaps "Mr. Wyatt's opinion had not been asked by the distinguished Surgeons who framed that memorandum"—we refer to the memorandum vindicating the treatment pursued by the Dublin Surgeons. The fact is, that Mr. Wyatt was one of the first invited by the eminent Surgeon who originated the manifesto to allow his name to be added to the list of signatures which appeared in the *Times*. We are glad thus to rectify anything disparaging to Mr. Wyatt's Surgical position, which needs, in truth, no adventitious support. We are further informed that Mr. Wyatt, who was in North Wales when the request reached him, at once stated his willingness to testify to any expression of conviction that the utmost *bona fides* had been observed with regard to the treatment of the unfortunate wounded man, but that he regretted to be unable to sign the document for reasons which were stated in reply. Moreover, we are informed that his original letter to the *Times* was forwarded to that paper through the eminent Surgeon before alluded to. We are most glad to rectify any matter of fact, however trifling, and to express our sense of the high position which Mr. Wyatt's skill and experience enable him to claim in military Surgery; still, we think—and we know that our sentiment is shared by numbers of our Surgical brethren, military and civil—that it was quite unnecessary for Mr. Wyatt to write to the *Times* at all, and that it had an ungracious look. Can Mr. Wyatt suppose that if he himself had treated Talbot he would have been spared the sarcasms, innendoes, and impudent insinuations which, for political purposes, were heaped upon the Dublin Surgeon?

PROVIDENT DISPENSARIES.

At the invitation of the Charity Organisation Society, a number of Medical men connected with Free and Provident Dispensaries met at a preliminary conference at the Society's rooms, Buckingham-street, Adelphi, on Saturday, the 2nd inst. The chair was taken by Alsager H. Hill, Esq.

Mr. Fairlie Clarke opened the proceedings by stating that it was the intention of the Society to invite to a conference all ladies and gentlemen interested in Hospital reform, the meeting to be held at the house of the Society of Arts on Tuesday, December 12, at 3 p.m., for the purpose of discussing "the provisee of the Poor-law Board, the Dispensary, and the Hospital, with reference to the sick poor, and to promote concerted and harmonious action amongst these agencies." According to the present system of indiscriminate relief, the out-patient departments are overburdened, the Medical men overtaxed, and, after all, the boon is in many cases given to those who are the least entitled to it. To meet this evil, he proposed a large extension of the Provident principle; in particular, he suggested that the Free Dispensaries should be converted into Provident Institutions. Some statistics were quoted showing the enormous number of persons who now receive gratuitous Medical treatment, and the very large percentage which they form upon the population of this metropolis. Now that the Poor Law Board is establishing Dispensaries of its own in every district of London, the Free Dispensaries, he remarked, are less needed than ever, and this time seems opportune for placing them on the Provident basis.

Mr. Hemming mentioned that it had been determined to convert the Notting-hill and Shepherd's-bush Dispensary into a provident institution, and that the rules of the Charity Organisation Society had been adopted with some modifications.

Sir Charles Trevelyan was of opinion that the class of *malades imaginaires* was not confined to the upper classes; that among the poor there are a number of people who attend at Dispensaries and Hospitals for the shelter and warmth they can obtain while waiting to see the Doctor, and others for the chance of getting pecuniary relief from the donor of the letter. Medical relief as now carried out has proved to be one of the most pauperising and pernicious systems of abuse; it breaks down a habit of self-reliance and dependence, and acts as a propaganda of poverty.

Dr. Drysdale was of opinion that the mass of Medical men approve the principle of Provident Dispensaries, but they are likely to be opposed by the governing body of the free institutions, who fear a falling off of the funds if the subscribers do not have letters to distribute gratuitously. Generally three or four governors rule the roost at the public Hospitals and Dispensaries, and they strenuously oppose any suggestions from without. At the Metropolitan Free Hospital a rule was recently made to admit only twenty-five new patients daily to each Medical man. The governors have recently taken off this restriction, and Dr. Drysdale has frequently to see sixty new cases a day. In Paris the staff of every Hospital and Dispensary is salaried.

Mr. Parker Young applied for the appointment of Medical Officer to the Westbourne Dispensary for the purpose of getting

it placed on the Provident system. After much opposition he succeeded in carrying his point, and this Dispensary has now been in full working order for eighteen months. The number of patients has not fallen off. They receive £20 a month from the poor. The duties are just the same. The House-Surgeon usually visits urgent cases outside.

The Chairman asked how the difficulty with regard to funded property could be got over—legacies bequeathed for the gratuitous relief of the sick poor. Several gentlemen replied that such money was usually spent on the *plant* of the Dispensary. The Chairman also asked whether Doctors would consider it *infra dig.* to attend at Provident Dispensaries. There was some difference of opinion on this point. Probably Dispensaries in the outlying districts would not find this a difficulty, but in the central parts of London, Dispensaries are generally worked by consultants, who might object.

Sir Charles Trevelyan paid a worthy and fitting tribute of praise to the Medical gentlemen who have devoted their time and energies for years to the gratuitous relief of the poor. The rule that unpaid work was bad work could not apply to the Medical Profession. He thought the public must be educated up to the advantages of the Provident system. All the artisan class should be encouraged to become members of a Provident Dispensary.

Some of the Medical gentlemen present urged the importance of a careful superintendence in the practical working of such institutions, and the necessity of providing some check to the admission of members who were well able to pay for private Medical attendance. The Medical relief of the artisan class ought not to be monopolised by one or two Medical men in the district providing for them medicines and attendance at a nominal fee.

COLLIERS AND LONGEVITY.

THERE are exceptions, it is said, to all rules. Are not the statistics of the health and mortality of convicts in the main very different from the following? It is stated on good authority that at the Pinxton collieries eight men are at work at the pits whose united ages amount to 536 years, averaging 67 years per man; there are also eight old colliers off work whose ages amount to 558, averaging nearly 70 years of age, and fourteen labourers receiving daily wages whose united ages amount to 1008, being an average of 72 years per man. These are probably exceptional figures, but they are remarkable.

FATAL INJURIES TO A LUNATIC.

CASES are constantly occurring to show that in our public institutions for the reception and cure of the insane, injuries are inflicted, and fatal results supervene, of which it is difficult, if not impossible, to determine the cause. Whatever may be the vigilance displayed by those in authority, it is all but impossible to prevent cruelty in some instances on the part of the attendants; but it is almost incredible that an instance of extensive and fatal injuries should have occurred, and no evidence be forthcoming to show in what manner, or by whom, they were inflicted. On Monday last an inquest was held at Hanwell Lunatic Asylum, on the body of a patient named Lutage, who died from violence in that institution whilst in the refractory ward. After death, the Surgeon found a scar on the left knee, one higher up, a bruise on the chest, and a large one on the chin. There was a comminuted fracture of the jaw, a fracture of the tenth and eleventh ribs, an old fracture of the fifth rib, and the right kidney was torn across. Death resulted from laceration of the kidney and hæmorrhage, caused by violence of some kind or other. The jury returned a verdict, "That the deceased died from the effects of the injuries he received, but how those injuries were caused there is no evidence to show." This is certainly a most unsatisfactory verdict, and reflects little credit on the management of the Hanwell Asylum.

HEART DISEASE IN THE ARMY.

WHATEVER causes may be assigned for the prevalence of heart disease in the army, the fact cannot be ignored that it does prevail to a very remarkable extent. Dr. Jenkins, Staff Surgeon, in his Report on the Health of the Artillery Division of the Royal Marines, says that in the year 1869 seventy-seven cases of heart disease and aneurism were under treatment, and caused a loss to this branch of the service by invaliding of thirty-eight men, or 22·45 per 1000 of mean force. Nearly one-third of all cases of invaliding suffered from disease of the heart, and one-third of the deaths were from the same cause. Dr. Jenkins adds:—"Efforts at improvement already made have not been without fruit; but much remains to be done before the soldier can be freed from those trammels which so literally bind him, and before he can—like other hard-working men—be said to 'strip to his work.'"

THE LIVERPOOL NORTHERN HOSPITAL.

THE proposed alteration of rules, which would have thrown open the office of Physician to the Liverpool Northern Hospital to general Practitioners, has been abandoned, and it is now determined to convene a general meeting of the trustees for the 18th inst., for the purpose of endeavouring to modify the existing laws in such a way as to admit any gentleman as a candidate who, having been engaged in private practice for a period of two years, shall be willing to abandon Midwifery, Pharmacy, and Surgery from the time of election.

VILLAGE HOSPITALS.

GREAT success having attended the establishment of Village Hospitals at Cranley and Bourton-on-the-water, a number of gentlemen of Tewkesbury and neighbourhood some time ago determined to try a similar experiment in that town, and on the 30th ult. the foundation-stone of a new Hospital was laid by John Surman, Esq., of Tredington.

SMALL-POX JOTTINGS.

Two men, last week, were fined 10s. each at the Marylebone Police-court for neglecting to have their children vaccinated. The summonses were taken out by Dr. W. Hardwick.——In consequence of small-pox and diphtheria in an epidemic form, the Communal Schools of Florence have not been opened for the winter. There are 13,000 pupils in attendance at these schools. ——The disease is very prevalent at Norwich.——At Sneinton, a suburb of Nottingham, fifty cases are reported.——In the Poplar Union there had been one death from small-pox last week, and twelve new cases. During the week thirty-one persons had been vaccinated.——The disease has within the last few days made its appearance in the garrison at Woolwich, and several cases have already been reported. In one of the streets adjacent to the barracks it is very bad, and several fatal cases have occurred, principally amongst young children.——The *Birmingham News* says that the *Anti-Vaccinator*, a journal started in the interest of those who dispute the efficacy of the discovery of Dr. Jenner, has disappeared from a want of the "sinews of war."——Mr. Edward Brown Taylor, the owner of considerable house-property in the City, was on Tuesday fined by Sir Robert Carden 40s., and 20s. costs, for neglecting to cleanse and disinfect one of his houses in which small-pox patients had died, and otherwise purify the house according to the certificate given by Mr. Clarke, one of the Sanitary Inspectors for the City.

HEALTH OF TROOPS IN CEYLON.

WE hear from Ceylon that during September last a remarkable outbreak of fever of the remittent type, attributable, apparently, to local causes, took place in one company of the 73rd Regiment at Colombo, quartered in a barrack in close proximity to a canal, the shallowness of the water in which caused a large extent of muddy margin to be exposed to the

action of the sun. The constant passage of barges, also, and the dredging necessary for maintaining a channel, disturbed the water, and exposed fresh quantities of mud. The purely local nature of the outbreak is shown by the facts that all the other troops at the station continued in their average health, and that, on the removal of the men among whom the disease appeared to a more healthy situation, only two fresh cases occurred among them. Seventeen cases and three deaths occurred. The remissions were, as a rule, irregular, and badly marked; headache, delirium, and irritability of stomach were prominent symptoms. The vomited matter was generally of bilious character. The bowels were usually inactive. In several cases there was slight jaundice, the appearance of which was usually marked by a reduction in the pulse from 120 to 90. In the fatal cases, congestion of liver and spleen and mucous surfaces of stomach and bowels was generally observed.

PROFESSOR HUXLEY AT THE LONDON INSTITUTION.

On Monday, the 27th ult., in his fifth lecture, which, according to the programme, was to have been on the subject of "Smell, Taste, and Touch," Professor Huxley, referring only cursorily to the physiological history of these sensations, took his hearers over the more purely abstract ground of the metaphysical classification of Psychoses. He divided the original Psychoses into two groups, primary and secondary—the former requiring no antecedent psychosis, the latter only occurring after a primary. The primary original psychoses he roughly classified as Sensations, Emotions, and Volitions; or, as he considered a better classification, Sensations, Pleasures, Pains, and Efforts. These we share with the lower animals in kind, though differing in degree. In many of the lower animals there is every reason for thinking that the sensations are very intense. In sensations of all kinds there are grades, passing on from the very slightest perception to actual pain. He classified the sensations into Indefinite, Thermic, Olfactory, Auditory, Tactile, Visual. The *indefinite* are exemplified in the dim consciousness of existence which everyone feels without being able to specify—such as the sensation for the first few moments between sleeping and waking. The *thermic* present themselves to us in our feeling of a general sense of heat and cold, without localisation, as felt by himself, and no doubt by each of his audience, in the warm crowded lecture theatre. The *olfactory*, referable to the nose, which, however, is not the actual seat of the organ by which the sensation is produced. The immense variety and extreme diversity of odours are well known, as may be exemplified by the violet and assafœtida, but in each we can appreciate and distinguish different degrees of intensity; but the source of an odour is more general or diffused than localised. In the *auditory*, the same degrees may be observed; every note in the gamut, for instance, is absolutely distinct from every other. The localisation, also, of the source of a sound is not very definite, but when it becomes so, the psychosis passes from primary to secondary. The range of *tactile* sensations is very great; they admit of more definite localisation, but the seat of the sensation is not in the part touched. The *visual* sensations are exceedingly diverse in kind and intensity, from the sense of the slightest gleam of light, to the actual pain caused by gazing at the sun or a brilliant flame. The source of the sensation is also referred to something outside of and beyond the body, and in a definite direction. This is experienced with reference even to the flashes of light caused by pressing on the eyeball when the eye is closed.

Pleasures and Pains may be divided into *bodily* and *mental*. The confusion of language which applies the same term to a toothache as to the feeling of remorse, to the pleasure of eating one's dinner as to the pleasure of doing right, causes also a confusion of ideas. It is advanced as a reproach against a certain school of philosophers that they base our motives of action upon the pleasurable or painful nature of the results of our deeds. This misapplication of terms, however, is the fault, not of the moralists, but of language. The introduction of the class of Efforts may seem an innovation. The bodily effort necessary for sustaining an object steadily in the hand implies a consciousness of resistance, known as the "muscular sense," by which we are enabled to distinguish objects as regards the property of weight. The seat of this sense of resistance and effort has never been exactly defined. Professor Huxley appeared to think it might be a secondary sensation conveyed to the brain from the skin overlying the muscles employed. Volitional or mental effort is exerted in two different ways—namely, for the control of the mental state (the shutting out of external objects and the concentration of thought upon a fixed subject), and for the production of bodily motion. Consciousness gives no clue as to how this controlling power of volitional effort is exerted.

The secondary original psychoses are those which come into operation in the exercise of judgment or acts of reasoning. By them we become aware of Succession, Co-existence, Similarity, Dissimilarity, and Locality, as respects external objects or mental phenomena. The philosophy which derives all states of mind from sensations, cannot get rid of the above, and cannot trace them to association or sensations. In defining the locality, for instance, of an external object by touching it directly with the hand, the sensation does not really exist in the hand any more than in the point of a poker, supposing the external object to have been touched through that instrument held in the hand. The sense of contact is conveyed as a neurosis from the point touched along the nerves to the central organ, and referred thence back to the point touched as an actual primary psychosis. The sense of light, also, is not in the eye, nor that of sound in the ear, as he had already shown. Now arises the question as to the connexion between neuroses and psychoses. Experiment can reply only to a certain extent. It has, however, been established beyond a doubt that, to enable a neurosis to pass on to a psychosis, the activity and integrity of the nervous system and of the cerebral hemispheres must be complete. This is exemplified by the loss of consciousness consequent on injury of the cerebral hemispheres, and on the operation of certain drugs or anæsthetics. Chloroform, up to a certain point, does not interfere with the action of the spinal cord or medulla oblongata. The individual to whom it is being administered is excited, and loses his power of self-control in consequence of its action upon the central nervous organ, but may still be able to struggle or even walk about before he loses consciousness or sensibility to pain. Mesmeric phenomena likewise are produced by a certain state of the nervous system which abolishes or suspends the activity of the cerebral hemispheres. Alcohol also acts in the first place on the cerebral hemispheres by its cheering and exhilarating influences—as, in the words of the Psalmist, "Wine that maketh glad the heart of man"; it accelerates the succession of ideas in the train of thought, and, if pushed beyond the limits of prudence, it will run that train off the rails altogether

It has, therefore, been demonstrated by experience that, for sensation and motion, integrity of the afferent and efferent nerves is respectively essential—that for psychoses of all sorts integrity of the whole nervous system is essential. At this point positive knowledge ceases. The substratum through which we become conscious of external objects, and recognise succession, co-existence, similarity, dissimilarity, and locality, remains unknown. When, however, a close and invariable connexion is observed between two sets of phenomena, they are classed respectively as cause and effect. Professor Huxley concluded with an illustration of the hypothetical connexion between neuroses and psychoses, by saying that the whole nervous system may be compared to a clock showing the hour and other events on its face, and consciousness to another superadded clock or piece of mechanism, which strikes the hour or plays tunes, but whose action is not essential to that of the other clock.

We regret that Professor Huxley was prevented by indisposition from delivering his sixth lecture on Monday, the 4th inst.

FROM ABROAD.—SALE OF AMERICAN DIPLOMAS—THE VACCINE VIRUS AS A FERMENT—EXPLOSIVE BULLETS—SUBCUTANEOUS INJECTION OF MORPHIA IN ERYSIPELAS.

THE success of the bogus "American University of Philadelphia," in palming off its hundreds of mock diplomas upon the credulous, has been so great that the real University of Pennsylvania, which has suffered much in reputation in consequence of having been mistaken for it, has at last taken energetic action in the matter, by informing the unwary, and meeting the machinations of the swindlers concerned by legislative enactments. The efficacy of any measures of the kind would be more probable if those who have received, or are desirous of receiving, such documents were merely dupes, devoid of ordinary caution; but there is too much reason to believe that most of them know too well what they are about, and are only too willing to be deceived. However this may be, the University of Pennsylvania can do no more than disavow all complicity in such transactions, and warn, by a wide publicity, all concerned in the matter. This, at all events, will make generally known the true character of these mock diplomas, and cover the holders of them with the disgrace they justly entail. In its circular, the University informs the public that its Honorary Degrees can only be conferred by a *mandamus* signed by two-thirds of the whole number of the trustees, and that the Candidate must receive an unanimous vote by ballot before the degree can be granted. The penal Act which it has procured the passing of runs as follows:—

"*An Act to Prohibit the Sale of Academic Degrees.—Section I.*—Be it enacted by the Senate and House of Representatives of the Commonwealth of Pennsylvania in General Assembly met, and it is hereby enacted by the same—That it shall not be lawful for any University, College, or other Institution incorporated under the laws of this State with power to grant Academic Degrees, honorary or otherwise, to confer the same upon any person or persons upon the payment or promise of payment by any person in consideration thereof; and any person knowingly signing a diploma or other instrument of writing purporting to confer an Academic Degree when such consideration has been paid shall be guilty of a misdemeanour, and on conviction thereof be sentenced to pay a fine not exceeding 500 dollars, and to undergo an imprisonment not exceeding six months, or both or either, at the discretion of the Court.—Approved, May 19, 1871."

M. Melsens, in an article on the "Vitality of the Vaccine Virus," published in the Brussels *Journal de Médecine* for October, observes that, without entering into any discussion concerning the different opinions which have been advanced as to the nature of this virus, he wishes to state that he is engaged in investigating whether it may not be regarded as a *ferment*, susceptible, when placed in suitable conditions, of reproduction, like the alcoholic ferment. In this case it should prove capable of being destroyed or rendered inactive by the same bodies which destroy the alcoholic ferment, as also by certain physical agencies, such as exposure to humidity and an elevated temperature. On the other hand, the virus should be able to resist very low temperatures, as M. Melsens, in his communications to the French Académie des Sciences, has shown the alcoholic ferment can. In order to test this last point, he placed glass tubes containing fresh vaccine virus in a freezing mixture, and retained them there for about an hour and a half, at a temperature of 78° C. below zero. The virus which had been so exposed was afterwards employed for vaccination with complete success. "I am still pursuing these researches," M. Melsens adds, "in order to ascertain whether there may not exist additional points of contact between this virus and certain ferments which are capable of reproduction outside the economy—in other words, whether the vaccine virus may not be 'sown' and multiplied in the vessels of the laboratory. Some of the results of my experiments authorise me in entertaining hopes that this may be the case."

In a communication addressed to the Académie des Sciences, November 20, M. Coze offers an explanation of a circumstance occurring in certain gunshot wounds, which, he believes, has been erroneously attributed to the action of explosive bullets. When a projectile, impelled with very great velocity, strikes against a hard obstacle capable of resisting its progress, the momentum which animated it is transformed into caloric, and the projectile itself becomes, in consequence, heated and fused. From this a double result may be produced; for the ball may undergo fragmentation, while the wounded tissues undergo all the consequences of a burn of a more or less considerable extent. Such effects, from the want of a due appreciation of the conditions under which they have been produced, have been attributed to the action of explosive bullets, and have in the late war given rise to unjust recriminations on the part of both the belligerents. M. Larrey pointed out the desirableness of investigating the matter experimentally, with a view of setting at rest this vexed question of explosive balls, and the Academy appointed a committee for this purpose.

M. Nicaise, in a communication to the *Gazette Médicale*, March 18, had, indeed, arrived at very similar conclusions to those advanced by M. Coze with respect to the circumstances which had led to the suspicion of the employment of explosive bullets. The bullet, he observes, having become heated, may, on striking a hard bone, undergo change in its form, or have fragments split off from it and embedded in the tissues, although these constitute but a small portion of its entire mass, and are usually mere lamellæ. Owing to the less purity of the lead from which they are fabricated, some projectiles are much more friable than others. M. Nicaise does not, however, allude to the actual fusion of the metal described by M. Coze.

In the *Deutsche Klinik*, No. 39, is a paper from the pen of Professor Estlander, of Helsingfors, upon "The Subcutaneous Injection of Morphia in Traumatic Erysipelas." He states that he employed this injection originally in his clinical practice, in combination with the so-called abortive treatment (chiefly by means of tincture of iodine), mainly with the view of relieving the heat, tension, and pain of the inflamed skin. It was soon found, however, that the morphia must have exerted other effects also, so quickly was the course of the disease mitigated. It was therefore used in a series of cases as the sole local remedy, and the conviction became established that it must have exerted a direct influence on the inflammatory process, diminishing its intensity and arresting its progress. When the limits between the inflamed and healthy portions of the skin are not very clearly defined, and the process manifests itself in the form of large red spots gradually approaching each other, if we inject near the affected parts we usually find next day that the erysipelas has not extended farther, or has done so only to an insignificant extent. In cases in which the limits of the reddened and swollen skin are well marked, if we make some injections in its vicinity, we may find that the inflammatory process, which during the preceding twenty-four hours had made considerable progress, is sometimes at once arrested, but more frequently it continues in a diminished degree, gradually yielding in the course of a few days to a continuation of the treatment.

In the worst cases of erysipelas ambulans, as in the severe epidemic form, or where a peculiar disposition of the individual prevails, the morphia exerts as little effect as any other of the so-termed abortive remedies. In estimating how far the results depend upon the peculiar nature of the erysipelas itself, and how much they are ascribable to the injections, Professor Estlander has undertaken many comparative trials, and he could relate many cases in which, while a rapid improve-

ment followed the use of morphia, other cases treated at the same time, either expectantly or by means of other remedies, were much slower in their progress. Still, he is too well aware of the capricious character of erysipelas to venture to deliver any categorical judgment upon the subject. But a five-years' experience has convinced him that these injections constitute a better mode of treating erysipelas than many other means.

For the injections, two grains of the chlorate or acetate of morphia are dissolved in a drachm of water; and as Luer's syringe holds about a quarter of a drachm, of which a quarter or a half is injected, it follows that the dose varies from one-eighth to one-quarter of a grain. As, so far from the erysipelas ever appearing at the small puncture-wounds, these and their immediate vicinity are always respected by it, the dose may be distributed over different parts of the healthy skin, at a distance of one or two inches from the limits of the inflammation. Usually the injection is made only once in the twenty-four hours.

Professor Estlander has no intention of proposing this as an exclusive method of treating erysipelas, believing, on the contrary, that one of its advantages is that it admits of the simultaneous use of other means. He has tried, indeed, all the various other remedies which have been recommended, and regards the tincture of iodine as the best of these. As soon as from shivering and the appearance of the wound erysipelas seems threatening, he administers an emetic, a means which he believes is nowadays too much neglected, and one which he believes conduces to moderation of the disease. The morphia is next injected, either as the sole means or in conjunction with a daily painting with iodine, employing afterwards wadding and compression by a roller where practicable. Ipecacuanha with phosphoric or sulphuric acid may afterwards be administered. The sesquichloride of iron, once regarded as a specific, is of no real utility.

CHURCH OF ENGLAND SOCIETY FOR MEDICAL STUDENTS.

(*From a Correspondent.*)

A body of Associates of St. Luke has lately been established and held its first ordinary meeting on Monday, December 4, at the rooms of the English Church Union, Burleigh-street, Strand. The members already include representatives from most of the metropolitan Schools. An animated discussion took place last Monday upon the religious aspects of the subject of the Destruction of the Fœtus in Utero. All the Associates are communicants of the Church of England, and it is intended to hold monthly meetings for the consideration of religious subjects specially affecting the Medical Profession, and for the further purpose of affording to such students as profess definite Church principles opportunities of social intercourse and any other advantages which may attend such association. To judge from the success of this first meeting, the Society seems likely to prosper, and all those who are acquainted with the peculiar difficulties and temptations of a Medical student's life in London will, we are sure, heartily join with us in wishing such an attempt Godspeed.

THE LATEST VIEWS REGARDING THE RED BLOOD-CORPUSCLE.

Mr. E. Ray Lankester, Radcliffe Travelling Fellow, University of Oxford, has published "Observations and Experiments on the Red Blood-Corpuscle, chiefly with regard to the Action of Gases and Vapours."

The object of these observations was threefold—first, to ascertain whether certain vapours and gases having marked physiological influence on animals exert any direct action on the red blood-corpuscles, and to determine whether those known, by investigation with the spectroscope, to affect the hæmoglobin produce visible changes in the corpuscle; secondly, to examine into the chemical and formal structure of the red corpuscle; thirdly, to obtain, by a detailed examination of the influence of reagents, and especially gaseous reagents, on a typical histological element, a starting-point for further micro-chemical studies.

In his remarks on "the use of gases and vapours as a means of micro-chemical research," he claims for gaseous reagents the following advantages—apart from the fact that some bodies are necessarily only to be used in the gaseous state—firstly, that in this manner the agents are applied to the microscopic particle under observation without a deluging stream being produced so as to carry the particle right out of the field of the microscope. Such a stream is produced when a liquid is allowed to pass under the thin(a) glass cover as ordinarily used; but with the gas-chamber the reagent acts quietly, and without the least inconvenience to the observer, so that he is able to retain one individual particle under observation through the process. A second advantage in the gaseous method over that of solutions is, that the action of the diluents, water or spirit, is avoided. A third, and perhaps the most striking, is, that exceedingly minute traces of a reagent can thus be brought to bear and very gradually increased in strength whilst the observer is watching the object submitted to the reagent. At any moment the action may be stopped, and with the greatest facility and rapidity a second counteracting or other reagent introduced, by the use of the second tube of the chamber.

Among the reagents which may thus be used, and of which trial has been made, are water, hydrochloric acid gas (by current of air drawn through its solution), carbonic acid gas, acetic acid, osmic acid, nitrogen tetroxide, hydrogen sulphide, chlorine, iodine, bromine, ammonia, alcohol, ether, chloroform, carbon bisulphide, carbolic acid, and other gases and vapours of volatile liquids.

After discussing at considerable length "the opinions and doubts of numerous physiologists concerning the red blood-corpuscle," and giving his own history of the "normal appearance of the frog's red corpuscle," he proceeds to describe in the following terms the "normal appearance of the human red blood-corpuscle":—"The human red blood-corpuscle is a circular biconcave plate. It is, however, erroneous to regard this as the only normal form. In the blood of perfectly healthy persons I have frequently noticed the 'thorn-apple form' so immediately after the shedding of the blood, that I do not doubt that these forms existed in the circulating fluid. My own blood almost invariably presents these thorn-apple forms in large numbers, and I have not yet been able to connect their presence, or greater or less quantity, with any particular condition of health or nutrition. In addition to the thorn-apple form, my own blood frequently presents what I will term the 'single' and 'double watch-glass forms.' In these corpuscles, in place of a concavity on each face of the disc, we have a very large convexity, of delicate appearance, and paler than the rim or margin of the corpuscle. Sometimes only on one face of the corpuscle is there this swelling out, and then the appearance is that of an old-fashioned watch, seen from its side, the darker-coloured rim of the corpuscle representing the metal watch, and the swelling representing the convex glass. Often these convexities appear on both sides of the corpuscle. I do not see any reason for attributing these forms to changes occurring in the corpuscle after it has been shed. I have observed them (with Hartnack's No. 10à immersion) with the greatest rapidity possible, after being shed from the finger, and do not doubt that they exist in their peculiar form whilst within the body."

The writer then adverts to the great neglect that is universally shown in the examination of the blood-corpuscles in disease. It can hardly be doubted, he thinks, that the Physician may thus receive as important information as he gains from the examination of the urine. The reason of this neglect is—firstly, that the microscopes in common use are quite inadequate to the investigation of the corpuscles, which require a power of 450 diameters; and, secondly, that even if the examiner can accurately sketch corpuscles that have been sufficiently magnified, the changes that take place are so rapid that the task is one of extreme difficulty. This difficulty has recently been overcome by the discovery of a reagent which enables us instantaneously, on removing a drop of blood, to preserve all its form-elements *absolutely* unchanged, and in such a condition that the specimen may be put aside and examined at leisure. Such a reagent, he observes, exists in the so-called hyper-osmic or osmic acid, introduced as a preservative agent by Professor Max Schultze. It is sufficient to expose a thin film of

(a) The gas-chamber used by Mr. Lankester is a modification of the apparatus employed by Schweigger-Seidel.

blood on a glass cover to the vapour arising from a bottle containing the two per cent. solution of osmic acid during three minutes, to ensure complete preservation. "Every corpuscle," says the author, "becomes thus 'set,' as it were, in its living form—there is no coagulation, no shrinking, no dissolution; but, as the corpuscle was at the moment of exposure to the vapour, so it remains. The white corpuscles even exhibit their pseudopodial processes arrested in the act of movement. It is as though the osmic acid bottle contained a Gorgon's head, which freezes the corpuscles as they face it into stone. Having been thus acted on by the osmic acid, the cover-glass with the blood on it is placed on an ordinary glass slide, on which is a drop of a nearly saturated solution of acetate of potash, as recently recommended by Max Schultz, and there it may remain unchanged for as long as the Physician wishes. The whole process is so simple that, in less time than it takes to examine the chest, a drop of blood may be taken, thus prepared, and placed on one side for examination at a later moment. One may have perfect confidence, from careful comparative observations, that the osmic acid does not change the form of the corpuscles *at all;* and thus all the advantages are obtained for a leisurely and deliberate study, which otherwise are only to be obtained by most inconvenient haste and precipitation. At the same time, the indispensable opportunity is provided of retaining the corpuscles in their living form for *comparison*, from day to day and from case to case."

We have not space to follow Mr. Lankester in his remarks on the effect of pressure on the red corpuscles, or on "the effect of isolation from the plasma by adhesion to a foreign body, by mixture with salad oil," or on the effects of watery vapour and other vapours and gases on the red corpuscles, but must content ourselves with quoting his own "general conclusions," which will serve to give the reader some idea of the wide scope of his observations:—

"The red blood-corpuscle of the vertebrata is a viscid and, at the same time, elastic disc, oval or round in outline, its surface being differentiated somewhat from the underlying material, and forming a pellicle or membrane of great tenuity, not distinguishable with the highest powers (whilst the corpuscle is normal and living), and having no pronounced inner limitation. The viscid mass consists of (or rather *yields*, since the state of combination of the components is not known) a variety of albuminoid and other bodies, the most easily separable of which is hæmoglobin; secondly, the matter which segregates to form Roberts's macula; and, thirdly, a residuary stroma, apparently homogeneous in the mammalia (excepting so far as the outward surface or pellicle may be of a different chemical nature), but containing in the other vertebrata a sharply definable nucleus, this nucleus being already differentiated, but not sharply delineated, during life, and consisting of (or separable into) at least two components, one (paraglobulin) precipitable by CO_2, and removable by the action of weak NH_3; the other pellucid, and not granulated by acids.

"The chemical differentiation of the outer pellicle is rendered probable by the behaviour of the corpuscles under weak NH_3, which appears to dissolve this pellicle, and so loose the viscid matter from that which restrained it to its oval shape; also from the inability of CO_2 to act on the corpuscle until it has been subjected to the influence of aqueous vapour, which may be supposed to remove or render permeable this pellicle; also from the action of chloroform, oil, and cyanogen, which cause the discharge or diffusion of the hæmoglobin from the corpuscle, perhaps by first removing or rendering permeable—at any rate modifying—this outer pellicle.

"Steam, chloroform, benzine, bisulphide of carbon, ammonia, and cyanogen act on the red blood-corpuscle so as to cause the escape of the hæmoglobin.

"The further action of these reagents causes the elimination of what may be called Roberts's constituent, that which is stained by magenta and set by tannin.

"A still further action of chloroform, of water, or of ammonia dissolves first the stroma, lastly the nucleus.

"Carbonic oxide and sulphuretted hydrogen produce their respective changes on the hæmoglobin, as demonstrated spectroscopically, without altering the form of the corpuscle, merely effecting the radiation of its body."

For further details we must refer to the memoir itself, which is published in the last number of the *Quarterly Journal of Microscopical Science.*

Last week 1918 deaths were registered in the metropolis, being 224 above the average.

ON EMBALMING.

The art of embalming, as is well known, is very old; even the ancient Egyptians had introduced the practice from Ethiopia, a country abounding in various gums, which served them to preserve the remains of their relatives. The transparency of these substances had induced some travellers to assert that the bodies were embedded in glass, like insects found in amber. De Pau and many other writers have exposed the absurdity of such a report, since it is more than probable that glass was scarcely, if at all, known amongst them. The Persians enveloped their dead in wax, and the Scythians sewed them up in skins.

The operators were the priests, who persuaded the multitude that the immortal part of our being was retained within its earthly house so long as the corporal form could be preserved entire, and a belief in the transmigration of souls naturally led to the desire of retaining them as long as it was possible in their former bodies; and the words of Virgil—"animamque sepulchro, Condimus,"—would seem to warrant this belief amongst the ancients.

The operator, or "*incisor*," as he was called, appears to have been considered a degraded being; for Diodorus tells us that, after the operation, he was pursued by the relations of the defunct, and pelted with stones, as having polluted the remains of the dead.

As to remuneration, Diodorus Siculus states that the first class of embalming cost a silver talent, the second twenty minæ, and the third scarcely anything. In Rymer's "Fœdera," vol. i. p. 1001, will be found a letter from the Keeper of the King's Wardrobe to Sir Ralph de Stoke, Clerk of the Great Wardrobe, stating that Richard de Montpelier is going to London on account of the king's (Edward I.) illness, and desires that every facility may be afforded him to procure and make up the medicines. "Propter Infirmatem Domini Regis per ordinationum Magister Nicolaus de Tynwick" (*sic*). Richard de Montpelier's account for this illness and subsequently the embalming the king amounted to £134 16s. 4d., a considerable sum in those days. Amongst other curious items we find:—

	£	s.	d.
Pro Emplastris Cironeis	4	0	0
Item pro Terebintine destillato	0	40	0
Item pro uno Emplastro pro Collo Regis cum Ladano et Ambras Orientalis	0	60	0
Item pro vj. Malis Granates	0	60	0
Item pro sex unciis de Balsamo ad Corpus Domini Regis unguendes	13	0	0
Item pro pulveri aromatice de Aloeis Thuris Myrrhæ ad ponendem in Corpore Regis	4	0	0
Item pro Musco uncia iiij. ad Ponendum in Membris Regis(a)	0	60	0

A curious fact with relation to the embalming of Edward I. will prove that Master Nicolas of Tynwycke (who, the king said, "was more learned and fit to have the care of his health than any one in the realm"), Master Peter, the Surgeon, and Richard of Montpelier, the *Espicer* (or apothecary), did their duty well, for about fifty years ago the tomb of Edward I. was opened and the body found entire. A zealous antiquarian, Sir J. Ayscough, was induced to taste the "pickle" or fluid in which the royal body was preserved, and even then, more than 500 years after the embalmment, it showed traces of the spices used, and of which we have just given the charges and accounts.

In modern times we find that Edmond Phillips had £40 4s. 8d. for embalming the body of Thomas Sutton, the benevolent founder of the Charterhouse. In the case of George II. the two Sergeant-Surgeons had £122 8s. 9d. each for "opening and embalming," and the apothecary £152 for "a fine double cere-cloth and a due quantity of rich perfumed powders."

Our great Hunter was engaged to embalm the body of the Earl of Moira, and dictated the *modus operandi* to the late Sir John Doratt, his last surviving pupil, by whom the original document was presented to Mr. T. M. Stone, to whom we are indebted for its publication.

The whole of the viscera, thoracic and abdominal, having been removed, the entire inside of the trunk was well washed with cold lime water, and afterwards well dried with cloths: when dry the cavities were actually soaked in rectified spirit of wine. On the removal of the contents of the abdominal cavity, incisions were made into the intestinal canal, to give

(a. The original Latin is preserved.

vent to the fæcal contents, as also to the gas that might have been contained within them; they were immediately immersed into cold lime water, well washed, and the blood that appeared well squeezed out; this effected, the whole were again immersed into lime water, and allowed to remain for a time; this last being finished, the whole was thrown into rectified spirit of wine, and suffered to remain for some time. The abdominal cavity having been prepared as directed, and a bed of spices being laid to receive the viscera, the latter was then returned or replaced. The whole cavity with its contents was entirely filled with the spices and alum, so as not to leave a vacant space. The abdominal integuments were then closely drawn together, and strongly sewn with twine well waxed.

The thoracic viscera were in part treated in the same manner as the abdominal viscera, as also was the cavity of the chest, the lungs having been replaced, and the cavity completely filled with spices, etc., the integuments closely drawn together, and sewn with twine well waxed (the blood well squeezed from the lungs before immersion, and incisions having been made, friar's balsam was poured into them).

The heart, after having had several incisions made into its substance, was immersed as before described in the lime water and spirit of wine; a considerable quantity of the friar's balsam was poured into all the openings, and the arteries and veins plugged with spices, etc., well wetted or soaked in the balsam; the heart was then placed in the urn well filled with spices, and again soaked with the balsam. The urn was then hermetically closed. The scalp being most carefully removed, the cranium was sawn through, so as to remove the upper and larger portion, the brain carefully removed; the bony cavities were treated in the same manner as the other cavities. The brain was divided in many parts by small incisions or deep punctures, and a considerable quantity of friar's balsam poured into them; it was carefully replaced within the cranial cavity, well covered with the balsam, so as to envelope the whole mass, the scalp well drawn over the whole cranium, and closed, by being closely sewn with twine well waxed. The mouth and throat were crammed with the spices wetted with the balsam, as also the nostrils. Nothing was done to the lower parts of the body that I remember, neither have I any note of such. The body was well washed with lime water, and when perfectly dry, every member was separately rolled in waxed cloth, and afterwards the whole body closely enveloped in the same.

I forgot to mention the bladder was treated in the same manner by the different immersions, and crammed with the spices. Performed by Mr. Home, myself acting as assistant. The body was an Earl of Moira, all under the immediate direction of Mr. John Hunter.

The apothecary who supplied all the materials that were necessary by tenure of office, was Mr. Wainwright, who resided in Pall-mall, opposite to Carlton-house, within a door or two of St. Albans-street, as it was at that period.

The spices were composed of the more aromatic and pungent order, as cloves, nutmeg, cinnamon, pepper, frankincense, etc., etc., added to which was a large portion of alum in powder; all were reduced to a coarse powder.

JOHN DORATT.

ST. ANDREWS MEDICAL GRADUATES' ASSOCIATION.

THE fifth anniversary session of this Association—Dr. Day (Stafford), President—was held on Friday and Saturday, December 1 and 2, at the Freemasons' Tavern, Great Queen-street, Lincoln's-inn-fields.

The following were elected Officers and Council for 1872:—*President:* *Deputy Inspector-General Gordon, C.B., Dover. *Vice-Presidents:* Dr. Crisp, London; Dr. Black, Chesterfield; Dr. Cholmeley, London; Dr. Wynn Williams, London; *Dr. Balfour, Edinburgh; *Dr. Lush, M.P., Salisbury. *President of Council:* Dr. B. W. Richardson, F.R.S., London. *Council:* Dr. Ballard, London; Dr. Dudfield, London; Dr. Goss, London; Dr. Cleveland, London; Dr. Buchanan, Glasgow; Dr. W. H. Day, London; Dr. J. T. Griffith, London; Dr. Wiltshire, London; Dr. Barnard Davis, F.R.S., Shelton; Dr. Jencken, Dublin; Dr. Ross, London; Dr. Royston, London; Dr. G. Bird, London; Dr. Brewer, M.P., London; Dr. Lockhart Clarke, F.R.S., London; Dr. Cooke, London; Dr. Wharton Hood, London; Dr. Murray Lindsay, Hanwell; Dr. Nicholls, Chelmsford; Dr. Semple, London; Dr. Stedman, Guildford; *Dr. Christie, Royal India Asylum; *Dr. Bower Harrison, Manchester; *Dr. Samuel Hill, London; *Dr. Humby, London; *Dr. Lipscombe, St. Albans; *Dr. Macdonald, R.N., F.R.S, Woolwich; *Dr. Moon, Brighton; *Professor Norris, Birmingham; *Dr. Painter, London; *Dr. Waring, London. *Honorary Treasurer:* Dr. Paul, London. *Honorary Secretary:* Dr. Sedgwick, London.

A gown and hood of the Doctor of Medicine of St. Andrews was presented to Dr. Richardson, F.R.S., as a slight acknowledgment of the eminent services which he has rendered to the Association during his four years' tenure of office as President.

The report of the Council dwelt chiefly on the mode of taking Medical evidence in courts of law, and on the regulations for the degree of M.D.

In regard to the latter subject the Council reported that they were taking steps to circulate largely among non-graduates the following—

"*Memorandum of Medical Degrees.*

"The University of St. Andrews is the only British University where a legally qualified Medical Practitioner can obtain, after examination, the degree of Doctor of Medicine without keeping terms at a University or attending anew courses of lectures at a Medical school; but candidates must be forty years of age, and only ten such degrees can be granted annually.

"The Scottish University Commissioners of 1858 reported that the power possessed by the University of St. Andrews, to grant, after examination, the degree of Doctor of Medicine to Medical Practitioners, who, after a successful career of some years, are desirous of obtaining a higher Professional position, is proper and advantageous if confined within due limits; and that, in order to prevent any abuse of the privilege, they had required the candidates to be forty years of age, and had limited the number of degrees which should be so conferred to ten annually, being assured, on the best Professional authority, that this number would be quite sufficient to include all persons so situated who could present any reasonable claim for admission to a degree.

"The University has recently attempted to amend the regulations for the degree of Doctor of Medicine by substituting, for the provision that the candidate shall be forty years of age, one requiring him to have been in possession for five years of a Medical or Surgical qualification which would entitle him to be registered under the Medical Act, and by abolishing the limitation in the number of degrees to be granted annually.

"The consent of her Majesty the Queen in Council, which is needed to render any new regulation of this kind valid, has been refused, for the reason that no sufficient ground has been shown for any further extension of the privileges possessed by the University in granting Medical degrees.

"This Association has contended that the Report of the Scottish University Commissioners as to the sufficiency of ten degrees annually (which has doubtless influenced the decision of the Privy Council) is based on untrustworthy authority; that these arbitrary limitations as to the age and number of the graduates exclude from the degree many candidates who by their position and acquirements are entitled to offer themselves for examination; and that the true and only limit to the number of degrees granted to already legally qualified Medical Practitioners of acknowledged respectability and position should be afforded by an extended and searching examination.

"Under these circumstances the Association is wishful to ascertain, as nearly as may be, the exact amount and nature of the injurious effect of the present regulations; and for this purpose it is endeavouring by means of the accompanying form, which it is hoped will be largely used and promptly returned, to collect the opinion of those most intimately concerned—the opinion, that is, of those legally qualified members of the Profession, who may now, or in a short time, desire to obtain the degree of Doctor of Medicine.

"The Association, pressed by various and conflicting opinions and statements concerning the matter in hand, is only anxious to determine on absolute facts what is the true Professional requirement. It is not, therefore, intended to publish the names of those who are good enough to express in this manner their opinion on this subject, but merely to furnish the University Court, and, if necessary, the Privy Council, with accurate data."

A discussion on "Habitual Drunkenness and its Treatment, Medical and Legislative," was introduced by Dr. Swete, and continued by Dr. Griffith, Dr. Richardson, Dr. Lush, M.P., Mr. Hepworth Dixon, Dr. Seaton, Dr. Crisp, Dr. Thomas Ballard, the President, and others. The majority of the speakers considered that in any legislative enactment that might be considered desirable a distinction should be drawn between drunkenness as a disease and drunkenness as a vice, and that the former might well be treated under similar regulations to those provided by the Lunacy Acts. On the other hand, it was contended that dipsomania, if there were such a disease, had no recognisable characters, and that the description given of it was vague and unsatisfactory. Great sympathy with the efforts of Dr. Dalrymple was expressed, and emphatic approval of the object he had in view, but there was a general opinion that many modifications were necessary in the provisions of the Bill. A strong opinion in favour of legislation of this character was given by Mr. Hepworth Dixon, as one outside of the Profession, and he asserted his emphatic belief that there

* Those marked thus have not held this office during the previous year.

was a good in what might be called mechanical or mathematical legislation, a legislation of hard lines and rules whereby a man might see for himself that he was outside a standard of right, and was branded as a wrongdoer. In a new path like this many mistakes would be made at first, no doubt, and watchful attention would be essential to good progress. On the motion of Dr. Richardson, seconded by Mr. Hepworth Dixon, it was unanimously resolved—"That the Council of this Association be requested to watch the progress of Dr. Dalrymple's Bill, and, at the proper time, to prepare an analysis of, and an opinion concerning, the probable working of the Bill; and that the Council be also empowered to communicate the same to a public meeting of the Profession at large and of the public, if the proceeding be considered advantageous."

The following day the PRESIDENT delivered the anniversary address on "The Historical Steps of Modern Medicine." After describing the modern progress of natural histology, he said, in regard to the study of diseases by synthesis,—

"By ancient usage the disease was, in every case, accepted as though it were, if I may say so, an experiment projected by nature, out of the knowledge of the Physician, but sought after, as to its cause, by an examination of the external conditions under which it occurred. By modern usage the experiment of disease is made by the observer; the synthesis of disease, as it is said, is practised, and, from a given known cause, suggested by theory, morbid changes are produced, which changes resemble those that take place under what have been before considered as the hidden workings of nature. Of the results of these synthetical researches the world at large has no knowledge, and the Profession, taking it as a body throughout the world, but little knowledge; and, indeed, the study of disease by synthesis has been cultivated for so few years there is small reason to wonder it should be so little, so indifferently recognised. There is as yet about it hardly sufficient information to produce a decent volume, and yet how rapidly has it led us towards generalisations in all the directions in which it has been applied. That diabetes should be producible, synthetically, by the process of irritating the floor of the fourth ventricle, by the inhalation of carbonic oxide, and by other agencies affecting the nervous centres, thereby proving the true neurotic origin of this formidable malady, is one of these rapid strides by direct experiment which could not be accredited had it not actually been done, and which, instead of running counter to the previously recognised but obscurely understood morbid states of the ailment, runs with them, and explains them, as they were never explained before. That the disease so long known as cataract should be synthetically producible by the simple process of charging the circulatory current with an excess of crystalloidal matter; that different forms of cataract should positively be producible by the action of different crystalloids; that the well-known diabetic cataract should be producible by the mere introduction of glucose, the crystalloid which the diabetic patient is throwing off; and that, by placing the body of the animal, in which the morbid state has been generated, in favourable circumstances for recovery, recovery should follow—that all this should happen, opens up to us a series of truths so startling that one almost hesitates to accept them in full, lest, by some accident of experiment, an error should have been committed. That epilepsy, and the chronic epileptic condition, should be producible by the division and removal of portions of nerves; that the epileptic seizure, in the prepared animals, should at once be made evident by the disturbance of motion in the peripheral nervous matter at some given point of the surface of the skin; and that the tendency to the produced disease should be transmitted by hereditary descent—these, again, are facts so extraordinary, that we feel we have yet to wait for a knowledge of the true meaning of nervous lesions, for a knowledge which does not now exist; that is to say, for the discovery of lesions which are not detectable by our present instruments of research—our chemical tests, our microscopes—refined as these may be. That all the conditions of disease, once known by the name of apoplexy, or apoplectic convulsion, but now called uræmia, should be producible by the process of dividing the nerves of the kidney, by separating the vessels of the kidney from the organ, by introducing the nitrogenous product of the kidney—urea—in excess into an animal, or, lastly, and most wonderfully of all, by making the nitrogenous substance from inorganic materials out of the body, and then occasioning the disease by its introduction into the body—these are facts certainly not less strange, not less remarkable, than those which have preceded. After describing the great advance made in Surgery, he proceeded—"As, for a postscript, the lover cherishes his choicest words of admiration or trust, so, under the section of Surgery, I retain to the last a reference to the prime Surgical work of this era—I mean the advance made in the introduction of ovariotomy as a Surgical cure. That out of a hundred women, who thirty years ago would have died, had they suffered from the disease known as ovarian dropsy, seventy should now be saveable by the interposition of the art of the Surgeon, is a triumph unmistakably grand. Let us assume that the operation shall not last—let us assume that, in the progress of physiological science, some simpler cure than that of laying open the abdominal cavity, and removing the ovarian cyst, and firing the pedicle of the cyst, shall be discovered—that discovery itself will not conceal the greatness of the operation I name. For to prove, as it has proved, how the viscera of the abdomen may, *in extremis*, be exposed and explored, is in itself a sufficient event to fix the attention of the after-ages. Meantime, too, while we wait for new light, we have the practical results of the operation for our own satisfaction, and for our warrant to the wiser men, the magisters of the future, that the intrepid skill of our Surgeons who perfected this operation, was guided by the steadiest principles of art, is to all of us, their fellow-workers, an honour, to them a pure, an enduring fame. Let me, herewith, pass from the field of Surgery of our time. The workers in it have left two relics at least—namely, subcutaneous incision and ovariotomy—that shall be long remembered, and shall wear enduringly, as historical steps of modern Physic." He concluded with a graphic description of the progress of modern threapeutics.

Sir THOMAS WATSON proposed a vote of thanks to Dr. Day for his important and admirable address.

The anniversary dinner took place in the evening.

REVIEWS.

Pathological and Anatomical Researches on the Inflammatory Changes occurring in the Intra-ocular Terminations of the Optic Nerves as a consequence of Cerebral Disease. By Dr. HERMANN PAGENSTECHER (of Wiesbaden.)

THIS paper, which appears in the present number of the Royal London Ophthalmic Hospital Reports, November, 1871, is of great interest to Physicians as well as to ophthalmologists. When in London last summer, Dr. H. Pagenstecher was most assiduous in visiting several Hospitals in order to obtain specimens. He obtained eyes from patients who had been under the care of Dr. Andrew, Dr. Hughlings-Jackson, and Mr. Bader. The paper is of most value on account of the very elaborate and careful microscopical examination of these eyes. Dr. Pagenstecher seems to have arrived at results of great value. But we prefer to extract from the article, as being of more general interest, that part which gives the author's views on the connexion betwixt brain disease and the changes he describes so well:—

"Another very important question appears to me to arise, in the explanation of the connexion between brain disease and the changes in question which affect the optic disc. I naturally consider here only those cases in which the communication (optic nerve) is not to be regarded as the originator or principal agent (*Fort-leiter* in the morbid process).(a) Up to the date of this, three different explanations of this have been given, of which the first two presuppose an increase of the intra-cranial pressure. They are as follows:—

"1. Through the increased pressure within the cranium, pressure is brought to bear upon the cavernous sinus, which induces venous congestion in the central vessels of the optic nerve, which is also increased, as regards this, by the scleral ring (von Graefe).

"2. The intra-cranial pressure must force the fluid from the arachnoid space along the sheath of the optic nerve into the canal-like system present in the lamina cribrosa; and thus swelling, congestion, and the inflammatory symptoms dependent upon these, take their origin (Schmidt).

"3. The third explanation, propounded by Benedict, asserts that the symptomatic neuro-retinitis (neuro-retinitis as a symptom of a vaso-motor disturbance) depends in the majority of cases upon a morbid innervation of the sympathetic, which

(a) "As mentioned before, I have, up to this time, never had an opportunity of examining an eye of which I could safely assert that the morbid process had crept from the brain along the optic nerve till it reached the disc. But the more I have employed myself in researches of this kind, the more doubtful do I become as to this mode of origination of the changes met with in the disc. However, as regards this, we shall derive the best assistance from those colleagues who specially interest themselves in diseases of the brain and nervous system, and have a large material to draw upon."

is again itself a symptom of the most varied cerebral disorders (Processe).

"Against the first theory there are the following objections:—

"1. The cavernous sinus is a blood canal, surrounded with such impervious walls as are rarely to be met with, and a pressure sufficient to really compress this must, since the pressure within the cranium must be regarded as equal in all directions, exercise enormous pressure on all the other blood-vessels.

"2. The vena ophthalmica superior and vena ophthalmica inferior anastomose extensively both with one another and also with the facial vein; and although the vena centralis retinæ empties itself almost immediately into the cavernous sinus, yet it previously anastomoses freely with the vena ophthalmica superior. But besides these anastomoses, it is quite indifferent whether the discharge takes place at the vena ophthalmica or into the cavernous sinus, since both are continuous, and the return of the blood suffers no hindrance so long as the way through the facial vein is patent (Sesemann).

"3. Not every increase of cerebral pressure is followed by neuritis, and undoubtedly neuritis occurs where there is no such increased pressure.

"4. Optic neuritis is sometimes one-sided, and indeed has been often observed on the side opposite to the cerebral lesion, whilst the eye on the same side has remained perfectly normal (Case II.).

"The above-quoted 3rd and 4th facts may be adduced against the second theory. Yet, apart from these, one would be inclined to accept the theory, as soon as one became convinced of the existence of such a system of canals in the lamina cribrosa as are presupposed. Hitherto I have not been so fortunate. The dilatation of the inter-vaginal space (between the outer and inner sheaths of the optic nerve) was indeed revealed in a very suggestive (*prägnante*) manner, yet it would not be difficult to explain this by a surmise that it had its origin in an inflammatory process previously existing in the disc.

"Case V. lends most countenance to this view—namely, in regard to the lacunous formation somewhat above the level of the choroid; yet since even here we have to do with a really atrophic process, this also is by no means conclusive.

"The third explanation actually gains strength from the objections made against the two others, and Benedict especially calls attention to his successes with the constant current. From the point of view of pathological anatomy, nothing special can be said either for or against it, since points of contact are wanting. However, in the majority of cases we shall do best to content ourselves with this, if we must have an explanation at all, although it is partially inaccurate, and also requires further confirmation. In my view, then, the affair stands thus: The irritation conveyed through the nerve-tract of the sympathetic to the disc, induces the changes of the nerve-fibres, the hyperæmia, and even the development of new vessels, and in this manner a swelling and obfuscation (*Trübung*) of the disc and the adjacent parts of the retina is brought about. The latter may then for its part have, as a consequence, an extreme degree of congestion of the venous system of the retina.

"In any case it is very easy to bring the analytical facts in accordance with this explanation; and the very often asserted facts of the swelling of the optic disc of one eye only are most easily explicable on this hypothesis."

Elementary Treatise on Physics, Experimental and Applied, for the Use of Colleges and Schools. Translated and Edited from Ganot's "Eléments de Physique," by E. Atkinson, Ph.D., F.C.S., Professor of Experimental Science, Staff College, Sandhurst. Fifth Edition, revised and enlarged. London: Longmans. Pp. 828.

This capital text-book, which we have long been wont to use as a study companion, has now been so thoroughly naturalised to our tongue by its talented translator, that we have come to regard it rather as an English than as a French treatise. Indeed, were it not for the French names and titles which still appear on many of the woodcuts, we should be fairly tempted to consider it of indigenous origin. Of the new edition there is not a great deal to say. As a volume, it is perhaps more elegant than the old: a somewhat larger type is employed, but, perhaps from using a somewhat thinner paper, certain of the woodcuts lack that clearness and crispness which used to characterise them.

As a text-book introductory to the study of Medicine, this work well deserves the confidence of the public; for though written without any special application to Medicine, the plan of handling the subject adopted in it is well adapted to the wants of the student of Medical science. Certain works on the subject of Physics incline too much to mathematical demonstration; and though, without doubt, knowledge formulated in terms of mathematical precision is more exact than that conveyed in ordinary language, nevertheless exactness may not be possible in every branch of knowledge, and so the student fails to obtain a knowledge of those not capable of being so expressed. Among young students, too, such as those preparing for the Medical curriculum, the stock of mathematical knowledge necessary for the study of Physics in that way is not generally available, and so a plan such as is adopted in this volume—that is, neither too loose nor too mathematical—is that which is best for them. The tendency of modern physiology is more and more to take advantage of physical science to explain the phenomena of living beings, and, with a view to a right understanding of what goes on in such mechanical processes as respiration and circulation, a knowledge of mechanics is absolutely necessary. Still more is this so when treating of the movements of the living body and in dealing with the organs of sense. Where would our knowledge of ophthalmology be but for a profound knowledge of the laws of optics? And though our knowledge of diseases of the ear is less exact than is that of diseases of the eye, what exactness it does possess is due to a knowledge of acoustics.

We have long contended for an improved preliminary education in our Medical youth, and in no department is this more necessary than in Physics. The time devoted to Medical studies strictly so-called is all too short, and it is hard for a teacher of anatomy or physiology to have to teach that which might have been taught at school, but which, nevertheless, he must teach if his pupils are to have a right understanding of their subject. A proper knowledge of Physics ought to be exacted from everyone entering on the study of the Medical Profession; and at all events it cannot be urged in excuse that there is no proper text-book, for it is rare to find on any particular subject two works so well adapted to the use of the student as that whose title heads this notice and Charles Brook's "Natural Philosophy."

COLONIAL CORRESPONDENCE.

AUSTRALIA.

Melbourne, September 9, 1871.

The chemists and druggists of Victoria have lately been bestirring themselves to obtain an Act similar to the Act which has been working so well in England, for the regulation of those practising pharmacy. After some trouble, a Bill has been drafted and submitted to the Medical Society of Victoria, who have made some important alterations, most of which, it is expected, the Pharmaceutical Society will adopt. Such an Act is much needed here, both for the protection of the respectable chemists and druggists themselves, and also for the better defining of their own functions; for it is pretty well known that a good many of these gentlemen do a large amount of surreptitious practice, not only over the counter, but in the way of visiting, notwithstanding that the Medical Act, however deficient in some particulars, is tolerably express in defining irregular practice. The amended Medical Bill, also, has been for many months in the hands of the Medical Board, pending the settlement of an objection raised by the Government to introduce it into the Assembly. The Government are disposed to regard it as a private measure, but offer to give it their support.

In a general way, it is here very much the rule for people to take a man at the value at which he appraises himself; but this principle reaches its excess of application in respect of the Medical Profession. A very shrewd observer belonging to our order in this city says that no social infamy is so infamous as Medical infamy; and, if one may judge by examples, which are here abundant, he is right. The impunity with which Professional ethics may be defied is not quite encouraging to those who endeavour to act honourably, and its bad effects are seen throughout a too large section of the Profession here, not always in an exaggerated form, but almost infinitely modified; so that the chivalric sense of honour which one tries to believe ought to distinguish the cultivators of Medicine, is found to be only exceptionally illustrated. It is true that Medical men in Australia have to fight very hard the battle of life. Not only

is there a spirit of very keen competition at work, but the rage for cheap Medicine is continually on the increase. It would seem as if, very shortly, what with clubs and what with charitable institutions, there will be very little private practice left; so that, unless a man be exceedingly high-principled indeed, his virtue cannot resist the temptation of securing an advantage when it offers, no matter at what sacrifice of Professional ethics. For example, at this very time, there is a vacancy in the Assistant-Physicianship of the Melbourne Hospital, for which several candidates are in the field. Of these, notably the most ineligible man is known to be the most industrious canvasser. He obtained an appointment to another charity in this city simply by force of diligent personal solicitation, and the general belief is that he will succeed in a similar manner this time.

Apropos of the Melbourne Hospital, the Committee have just decided upon accepting the services of a young lady of great intellectual culture, and highly connected socially, to train the nurses according to the better method which Miss Nightingale's intelligence and experience have suggested. Hitherto the nurses in this institution, if not exactly of the "Mrs. Gamp" class, have, at any rate, undergone no sort of preparatory training, and this determination on the part of the Committee has created a very favourable opinion of the management.

On the subject of the Medical charities of Victoria there is, however, just now among their several Committees something like consternation. It is known, probably, to your readers that these institutions are, for the most part, maintained by the State, the subscriptions forming a comparatively small percentage of the whole income; but the Treasurer of the Colony has just announced that, for the future, Government aid will be granted only in the proportion of two-thirds to one of subscriptions. It is perhaps desirable that the voluntary system should be more largely applied; but to suddenly insist upon its larger adoption is felt to be something more than inconvenient, and it is not unlikely that some special means will be adopted to bring pressure to bear upon the Government to resume the hitherto prevalent custom of supplementing the funds to the extent of their needs. Our Legislature, however, continually shows itself prone to indulge in wild economies. During the recent debates on the estimates, an almost frantic endeavour was made to abolish all coroners, and also the office of Chief Medical Officer. The design, however, was frustrated, but not until a promise had been given that the whole system of coroners' inquests should be submitted to a commission of inquiry.

I am glad to be able to announce that the Medical Benevolent Association, which commenced its existence six years ago very unobtrusively and modestly, has, after relieving many cases of need, nevertheless accumulated a permanent fund of £500, which it is determined shall form the nucleus of a widows' and orphans' fund.

WEST INDIES.

TRINIDAD, November 8.

SMALL-POX has been epidemic here for nearly three months. It originated with a passenger by the Royal mail steamer *Nile*. It appears that a fatal case of small-pox occurred on the Transatlantic passage of the *Nile* from Southampton. She left that port on July 17, and the passenger in question, a negro, was landed here on August 4. Three days after landing he was attacked with fever, and three days after the fever the eruption appeared. No Medical man was called in until the case was reported to Dr. Bakewell, the Medical Officer of Health for the colony, by whom it was immediately reported to the Governor. The patient was then in the eleventh day of the eruption, and fourteenth of the disease. His sister, living in the same house, who had washed his clothes for him, was then suffering from a discrete form of small-pox, and a few days subsequently a child in the next house was attacked. From these cases the disease spread into the town of Port of Spain, and has now reached the country districts. Unfortunately, the Board of Health declined to comply with the recommendations of the Medical Officer of Health, who advised complete isolation of the first cases, and a rapid vaccination of all unprotected persons, and revaccination of all who had passed the age of 12 years. House-to-house vaccination of the whole unprotected population was adopted, but revaccination, unfortunately, was not. The consequence is, that, though the epidemic is not likely to prove severe or very fatal, it will probably spread over the whole island, and the colony is suffering the inconvenience of being put in quarantine by all the other islands. Up to this date there have been (from August 24) 152 cases; of these 28 have died (among whom 3 were unvaccinated persons), 82 have recovered or are convalescent, and 42 remain under treatment. Upwards of 2000 persons were vaccinated in Port of Spain in the course of six weeks. The epidemic is marked by no peculiar features. The health of the colony is in other respects good, and, strange to say, the mortality of Port of Spain has rapidly decreased since small-pox became epidemic. In August there were 102 deaths registered, in September 91, and in October 73. Small-pox has also appeared in Jamaica. The weather is now intensely hot.

GENERAL CORRESPONDENCE.

ALCOHOL INCONSIDERATELY PRESCRIBED.

LETTER FROM DR. LIONEL S. BEALE.

[To the Editor of the Medical Times and Gazette.]

SIR,—I was to-day asked to sign a paper in which objections are very properly made to the inconsiderate prescription of alcohol by members of the Profession; but when I inquired for the evidence that alcohol had been inconsiderately recommended, it was not such as to satisfy me, and in the absence of the most convincing evidence, it cannot be right to imply that any members of our body advise *inconsiderately*, either as regards eating, drinking, or the administration of medicines. That many of the public eat and drink too much, is well known to us all; but can it be supposed that any expression of opinion upon our part will reduce the number of courses at fashionable dinners, or persuade persons to drink water while they can get wine? No doubt many people would live longer if they drank less alcohol; but can we, by signing an expression of opinion, however strong and unanimous, hope to influence them? Many persons enjoy their wine—they find by experience that it suits them; they like it and take it. Are we to be held responsible for the morals, manners, and customs of the times in which we live? It cannot be our business to attempt to regulate the general consumption of wine, beer, and spirits!

What, therefore, is likely to be gained by some of us coming forward to protest against habits which all people know to be wrong? By taking this step do we not incur the imputation of responsibility, or, rather, do not those who sign the paper accuse some of their own body of contributing to the creation of habits of intemperance? Some people seem to fancy that drinking goes on in many London counting-houses and in not a few drawing-rooms to a terrible extent; others assert that chloral is all the fashion; and there is no end to the extravagant improbabilities that are put forward as if they were actual facts. Surely it cannot be right on the part of certain members of a Profession like ours to suggest publicly that others administer a remedy inconsiderately or indiscriminately! If a case of inconsiderate alcohol-giving comes within the knowledge of one of us, would it not be better to write to or see the culprit, or discuss the matter with him in a Medical journal? Simply to state or imply that there are amongst us men who, by the advice they give, knowingly or unknowingly encourage their patients in acquiring habits of intemperance, seems very ungenerous and, I venture to think, unjust. Some of us do not believe that there is any real foundation for so serious a general charge. People who drink do so knowingly, in spite of the strong advice given them by others not to drink. They will, of course, try to shift the blame upon their Doctors or their friends, or on fortune or misfortune, or upon anyone or anything except upon themselves, who alone are really responsible.

I am, &c.,

61, Grosvenor-street, Dec. 1. LIONEL S. BEALE.

MEAT EXTRACT.

[To the Editor of the Medical Times and Gazette.]

SIR,—You have accomplished a good work in taking up the question of meat extract; for the truth ought to be known, even should it prove fatal to the grocer-enterprise of one or more celebrated chemist.

You ask whether it be true that the meat extracts contain no appreciable quantity of albuminous matter, and, therefore, are not superior, in nutritive power, to *unscientific* beef-tea?

Not superior? I answer: *far inferior*. For, not only are they deprived of albumen, but even of *colleine*, which is con-

tained in beef-tea, and causes this to coagulate when cold. In fact, meat extract is almost exclusively composed of salts. I do not say by this that it is quite useless—for why should not the salts of meat have some therapeutical properties?—I only protest against the quackery of ascribing to any article of trade those properties which it does not possess. And it seems to me that the jury of the Exhibition in Amsterdam have exhibited themselves in a manner far from splendid when they assigned a golden medal for the meat extract of Baron von Liebig. If this learned gentleman wishes to provide us with a meat extract *really nutritive*, he should invent a method of preparing it in such a manner that at least the *colleine* is preserved. At all events, some slices of tender roast beef or roast mutton will always be far more nutritive than the best meat extract in the world. It must be kept in mind that meat extract acts as a purgative, and, for invalids liable to diarrhœa, is decidedly unadvisable.

I am, &c.,

Pau. BEEF-EATER.

LINES BY RICHARD BANISTER.

LETTER FROM DR. W. NEWMAN.

[To the Editor of the Medical Times and Gazette.]

SIR,—The enclosed lines may amuse some of your readers. The reprint is word for word taken from a curious octavo work on "Diseases of the Eyes," by Richard Banister, London, 1622. The book itself is rare, and has little of interest to the modern oculist, except that, speaking of "gutta serena," the author refers to the greater hardness or softness of the eyeball in different cases—a dream, so to speak, of the modern value of greater or diminished tension. The lines are not claimed as original, and the idea has, I believe, been worked out by more than one writer—a testimony hardly needed to its substantial truth.

I am, &c., W. NEWMAN, M.D. Lond.

Barn-hill House, Stamford.

"THE PRACTICIONER'S CAUEAT.

"Dum nigris ægrum prope mors circumuolat alis
Funestamq; aciem, funera jamq; parat:
Tum me promissis beat, & domus omnis adorat,
Meq: salutiferum clamitat esse Deum.
Paulò vbi conualuit, paulum de numine nostro
Cessit, & in nostris auribus ista sonant:
Tu cœlo nobis demissus es Angelus alto:
Prœmia quæ vestri, quanta laboris erant?
Jamq: Machaoniâ magis, et magis Arte leuatus,
Cum sedet ante focum, progrediturque tripes.
Oh homo, non frustrà, tantos subiisse labores;
Nosces, quod restat, tu modò tolle malum.
Ast ego si penitus jam sanum prœmia poscam,
Ille Deus pridem, mox Cacodœmon ero:
Cautior exemplo tu (dum dolet) accipe nostro,
Qui medicè exerceat, gnauiter artis opus."

"A SURGEON DIVIDED INTO FOURE PARTS: OR THE SURGEON'S COMMENT.

"1. A Surgeon's like a God whom they adore:
When death about the sicke man's bed doth sore,
Then hath he great respect, and high regard,
Fed with the smoaky promise of reward.

"2. But as the Patient doth begin to mend,
So doth the Surgeon's God-head straightway end:
Yet such attendance on him still is given
As if he were an Angel comne from Heauen.

"3. When health and strength the Patients doth inspire
To sleepe, eate, walke, and sit vp by the fire;
Then strait the Surgeon's state Angelicall,
In their respect vnto a man doth fall.

"4. Last when the sicke or sore are heal'd againe,
And that the Surgeon seekes reward for 's paine;
Hee's neither counted God nor Angel than
Nor is he intertained as a Man.
But (through ingratitude) that hellish euill,
They bid the Surgeon welcome as the deuill."

Richard Banister was a Surgeon and oculist residing in Stamford.

THE Mile-end Board of Guardians have voted a gratuity of twenty-five guineas to Dr. Cæsar for extra services performed during the prevalence of small-pox, and increased his salary from £200 to £220 a year.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

TUESDAY, NOVEMBER 21.

Mr. HILTON, F.R.C.S., President, in the Chair.

THE PRESIDENT referred to the cases of Epithelioma which had been brought before the last meeting of the Society by Mr. Hulke, and gave some particulars of an analogous case which had been treated by Sir Astley Cooper fifty years ago, and had since come under his own notice. The subject of the disease was a gentleman, who suffered from an active epithelial growth over the shin-bone. As he wore knee-breeches and silk stockings, and as the disease caused considerable disfigurement, he was anxious to have it removed. He was jocularly recommended to use a bone-rasper, advice which he actually put repeatedly into force; and although its use produced pain, he by this means kept the growth down for years. A few years ago this gentleman consulted Mr. Hilton for cancer affecting the tibia, from which he ultimately died.

Dr. DICKINSON exhibited a Small Aneurism affecting the Left Middle Cerebral Artery. The patient was an elderly female, 72 years of age, who had always enjoyed good health. She expired suddenly while at dinner, her head falling on her plate. The effusion on the brain was not sufficient to cause death by cerebral pressure. Dr. Dickinson believed, therefore, that she had died of shock. The arteries of the brain were rather atheromatous, but elsewhere they were not very much affected. The heart and coronary arteries were healthy. The chief interest and rarity of the case was its proving fatal so suddenly.

Dr. GREEN related the case of a gentleman, aged 38, who had died suddenly from cerebral aneurism while drinking a glass of sherry.

Dr. HUGHLINGS-JACKSON mentioned the case of a woman who died in five minutes during, or after, a convulsive seizure; there was rupture of an aneurism of the middle cerebral artery. In this case there had been for several years epileptiform seizures. The association of epileptiform seizures with intracranial aneurism was pointed out by Dr. John W. Ogle and Dr. Murchison at this Society some years ago. It would seem that death by rupture of cerebral aneurism might be exceedingly slow or exceedingly rapid. Dr. Hughlings-Jackson had never seen a case of so rapid death from intracranial hæmorrhage as that related by Dr. Dickinson. He asked if there were vegetations on the valves of the heart.

Dr. DICKINSON, in answer to Dr. Jackson, stated that there were neither vegetations of the valve, nor was there any history of convulsions.

Mr. BRUDENELL CARTER exhibited, by means of the reflecting ophthalmoscope in the ante-room, a case of Double Optic Neuritis in a man. He said that Dr. Hughlings-Jackson, who had examined the patient, believed that a cerebral tumour was present, but that the cerebral symptoms were in abeyance.

Dr. HUGHLINGS-JACKSON considered Mr. Carter's patient's case to be one of great interest, because there were not any marked cerebral symptoms. The headache and vomiting the patient had had were very significant, but these symptoms were so slight in degree, and so transitory, that it would be scarcely safe to rely on them in the diagnosis of the presence of a coarse cerebral lesion. It was, however, certain that such ophthalmoscopical appearances as Mr. Carter demonstrated frequently did occur in association with adventitious products within the cranium, and it was equally certain that the absence of special nervous symptoms did not of necessity negative the existence of severe cerebral disease in this case. Probably the patient would have special nervous symptoms after a while.

Mr. HULKE pointed out that tumours growing inwards upon the brain gradually produce waste, and that there are frequently no symptoms until a few hours before death. We should be careful, therefore, in attacking tumours on the outside of the skull, as we frequently cannot tell whether they penetrate or not.

Dr. BAÜMLER brought forward a specimen of Aneurism of the Innominate Artery pressing on the common carotid artery. It chiefly affected the anterior circumference, so that the sac extended upwards to the right and left. The pneumogastric, sympathetic, and recurrent nerves were involved in the wall of the sac. The left recurrent nerve was intact. The specimen was taken from the body of a labourer, aged 53. Three weeks previously to death he began to suffer from aphonia; he could

not close his glottis, thus showing paralysis of the vocal cords. It was complete on the right and partial on the left. The diagnosis was verified after death, and the muscles of the larynx were found to be thin, pale, and flabby. Dr. Baümler wished to know if bilateral paralysis of the cords occurred from paralysis of one recurrent?

Dr. Wilks had known several cases where the discovery by the laryngoscope of paralysis of the vocal cord led to the diagnosis of aneurism. At the Veterinary College he had been lately told that roaring in horses was produced by pressure on the recurrent laryngeal.

Dr. Crisp said that aneurism in the horse was very rare. The old notion was that roaring was produced by emphysema, but this idea was now given up.

On allusion being made to the treatment of roarers by shot, Mr. Hulke referred to a gamekeeper who, he knew, was in the habit of taking shot for "rising of the lights"; and

The President referred to a similar practice of taking vinegar in addition to shot.

Dr. Risdon Bennett remarked that many horses roared after a certain amount of exertion, and that paralysis of the recurrent laryngeal nerve was only one explanation of the disease.

Dr. Dickinson exhibited a specimen, for Dr. Hawkes, of Horse-shoe Kidney.

Mr. Arnott exhibited a specimen showing the results of Excision of the Elbow-joint. The subject of the disease was a boy, who had been admitted into the Middlesex Hospital two years ago, when two and a half years old. He had strumous testicle, and other strumous symptoms. The joint was diseased, and was excised. Considerable portions of the bones were taken away. In two or three months he had fair use of his arm. In September, 1870, the testis was removed. In May, 1871, the boy showed cerebral symptoms, convulsions, and paralysis, which ultimately carried him off. After death, the bones of the ulna, radius, and humerus were found to be restored, and the ends of the bone were united by means of strong fibrous bands, with cartilage embedded and apparently becoming bone. The limb was half an inch shorter than the other. In the brain were found three tumours in the right cerebral hemisphere, from the size of a walnut to that of a hen's egg, made up chiefly of cheesy substance, and coated with grey transparent material, but there were no miliary tubercles in the brain. The skull was perforated. There was tubercle, however, in the lung. The microscopical examination of the tumour showed it to be similar to lymph-gland structure.

Mr. Maunder said that new bone was thrown out in quantity in these cases, because the limb was not allowed to rest.

Mr. De Morgan referred to a case in which the radius had been removed, and the ulna had thrown out a large quantity of new bone, which could not be explained by Mr. Maunder's theory.

Mr. Warrington Haward asked Mr. Arnott whether he had taken any special care, in excising the joint, to preserve the periosteum, as he had seen, after the subperiosteal method of resection, an unusual generation of bone, in one case so much as to interfere with flexion of the joint. Though he did not think such precaution was necessary in ordinary cases, it seemed to him well adapted to such as, from the extent of the disease, required the removal of a large portion of the bones. Mr. Haward had recently practised that method in such a case with very good results. The mobility of the elbow-joint after resection was generally very good, in some cases even more than the natural movements being obtained—as, for instance, the power of placing the hand flat on the shoulder, which could not be done in the natural condition.

Mr. John Croft had followed out the plan of saving the triceps insertion.

In answer to Dr. Douglas Powell, who asked how the skull had become perforated, Mr. Arnott replied that he believed the inflammation had extended to the dura mater and skull from the tumours.

Mr. Arnott, in reply to Dr. Baümler, said he did not know whether the child had suffered from acquired or hereditary syphilis.

Dr. Dickinson exhibited the larynx and trachea of a man, aged 52, on whom Laryngotomy had been performed for Acute Œdema of the Glottis. He died ten days after the operation, with pneumonia and symptoms of delirium tremens. There was minute injection of the air-passages below the opening, but above it the mucous membrane was of the ordinary pale colour. This inflamed state was, he believed, the result of the air passing, cold and unmoistened, immediately into the trachea and air-passages. At the Hospital for Sick Children, out of thirty-six fatal cases of tracheotomy, pneumonia was present in seventeen, bronchitis without pneumonia in five, and congestion of the lungs in two. To prevent these complications, he had invented a respirator to be applied to the wound. The plan generally adopted, of making a tent by means of the bed-curtains, and keeping it filled with steam, was not good, as the body was also kept under the influence of the steam, which was objectionable.

Mr. Squire said that he thought diffusing the steam in the room was better than by the tent method. He believed that chloroform was not employed so frequently as it ought to be in performing the operation of tracheotomy. The pulmonary affection was, however, not always due to the cold air, as bronchitis naturally arises in many cases in consequence of the disease.

Dr. Wilks agreed entirely with Dr. Dickinson in his opinion about the effects of the operation. He believed tracheotomy to be a formidable operation.

Mr. Thomas Cooke said he had operated on five cases in Paris, and four of these proved successful. He covered the canula with a piece of thick gauze. Mr. Cooke also alluded to the case of a gentleman who had worn a canula for years, and who had an indiarubber tube attached to the canula, the mouth of which he kept under the waistcoat, so that the air was thus rendered warm.

CLINICAL SOCIETY OF LONDON.

Friday, November 24, 1871.

Dr. Owen Rees, Vice-President, in the Chair.

Dr. Moxon related a case of Intracranial Disease cured by Iodide of Potassium. A young man, aged 21, was admitted into Guy's Hospital, under Dr. Moxon's care, having been ill six months. The illness came on with severe headache; in about three months ptosis and ocular paralysis of the left side commenced, and as it went on the left fifth nerve also became involved, and the right hand grew partially numb. When admitted he had agonising pain in the head. The left eye was intensely red, and its cornea ulcerated; it was almost immovable, and the lid was dropped. He could not feel moderate touches on the left face, nor taste salt on the left tongue, nor use left masticating muscles. He had two slight seizures of a doubtful kind on the first two days after admission. Iodide of potassium was given in three-grain doses thrice daily, and the dose increased to a scruple. He gradually got better of all his symptoms. The pain left him very soon; the other symptoms more gradually. He was in attendance at the Society's rooms, and the state of his left face and eye was practically normal again. The points to which attention was directed were chiefly these. That this is the third case of syphilitic disease about the sella Turcica Dr. Moxon had met with. This he connected with the growth of the sphenoidal sinuses there, bringing in illustration the occurrence of exostoses very frequently about the frontal sinuses, and of exostoses on the long bones at the region of the epiphysial cartilage; all these facts going to prove that the seats of late development are unusually liable to disease. Dr. Moxon believed that it was incumbent on everyone who had a case of local intracranial disease come under his care, to treat it at once with iodide of potassium, without waiting to make out its nature. He had not seen any serious ill-effects from the iodide when taken to the extent of a drachm in the day for long periods. Slight salivation, a red rash, and catarrh were not common, though they occasionally occur; and they are by no means to be compared with local intracranial disease as alternatives. As to absorption of the testes, he had never seen it. The iodism of old authors was probably referred to the poisoning of the blood by the absorption into it of broken-down matter of goîtres during their cure.

Dr. Anstie read the further and concluding history of a case of which the earlier notes were read last session. It was an example of neuralgia of all three branches of the fifth nerve, immediately excited by constitutional syphilitic infection, and which was of recent date. The case is one of a remarkable character. The nerve had been predisposed to neuralgic pain; many years before the syphilitic infection it had been the seat of an ordinary typical mygrane of great severity, and at present it was very noteworthy that the painful and tender points were distributed, not according to the type of tertiary syphilis, but according to that of ordinary neuralgia. Moreover, a number of secondary lesions (unilateral facial anæs-

thesia, unilateral loss of taste in the tongue, unilateral spasm of muscles, etc.) were distributed exactly as such secondary affections are in severe neuralgias where there is no question of syphilis. Besides these curious phenomena, there were a series of paralyses of the ocular muscles, quite of the ordinary syphilitic type. Thirty grains of iodide of potassium daily completely cured the neuralgia, the anæsthesia, the loss of smell and taste, and the muscular spasms, in little more than a fortnight. The ocular paralysis proved exceedingly obstinate; but the prolonged use of iodide in larger doses (forty-five and then sixty grains) daily at last completely removed them. It was a singular fact that, during the full progress of the muscles towards recovery, unmistakable symptoms of iritis made their appearance; they were checked by a short course of mercury. Such a case as this is sure to be marked in the future by the repeated recurrence of tertiary syphilitic nerve-lesions.

Dr. Hughlings-Jackson thought there could be no reasonable doubt as to the correctness of the diagnosis of syphilitic disease, since several cranial nerves were paralysed on but one side. Moreover, the palsies had passed off under anti-syphilitic treatment. Dr. Moxon's remark, that patients who are cured of syphilitic affections of the nervous system are liable to suffer again, was of great practical importance. He (Dr. Jackson) thought unfavourably of cases of syphilitic affections of the nervous system, even after the symptoms had been promptly removed by drugs. The author's observation on the indirect way in which nervous centres suffer from syphilis, by plugging of syphilitic arteries, was very important. Although patients would recover from hemiplegia, the result of any kind of pathological change, provided the lesion was very limited, he (Dr. Jackson) did not think the iodide was of value in removing hemiplegia, the result of plugging of a syphilitic vessel, any more than in removing hemiplegia the result of embolism from heart disease. He asked if the patient had had a blow on the head, as he (Dr. Jackson) had frequently seen cases in which syphilitic affections of the nervous system followed severe blows on the head. In illustration, he mentioned the case of a woman whose life-history he had related two years ago at this Society, who, after a severe blow on the left side of her head, had double optic atrophy (the sequel of neuritis) and convulsions, beginning in the right hand. At the autopsy there was found syphilitic disease of the surface of the left hemisphere, and also of the liver and spleen.

Mr. Brudenell Carter said one feature in Dr. Moxon's case told against his diagnosis—viz., Mr. Bader's Report on the Condition of the Optic Discs. Were there pressure on the cavernous sinus, one would expect congestion of the central vein, which would set up œdema of the disc, and would leave traces behind it. If the mischief had been inflammatory, the inflammation might not have had time to creep down to the discs. This was a more likely solution of the difficulty than a tumour. As to the effects of iodine, most products would go with its use. He thought it would not do to call it an invariable rule that iodine should be given for syphilitic formations—in some it was advisable to use mercury. Tolerance of iodine was largely increased by the use of barley-water. It was often, also, a good plan to diminish the dose for a time.

Dr. Broadbent thought that implication of the inferior maxillary pointed rather to inflammation then tumour. The case reminded him of one he had read to the Society, where the two upper branches of the trigeminus were affected. He had seen two other cases similar, but could get no post-mortem examination. In both there was rupia. In several cases he had seen a kind of purpura by iodine. He preferred to give ammonia with the iodine, and to give it after a meal. He had given as much as a drachm every four hours.

Dr. Anstie used to feel some hesitation in prescribing iodine in large doses; but his experience had shown the extreme rarity of troublesome symptoms. He now began with ten grains, and often gave a drachm a day.

Dr. Buzzard remarked that from Dr. Moxon's title the term "syphilis" was expressly excluded. In many cases he had failed to get any history of syphilis; and yet the patients got well with iodide of potassium. It was, therefore, a question how far iodide of potassium was capable of removing other growths. One might give this drug almost as largely as bromide of potassium.

Dr. Althaus considered large doses better borne than small. He had seen rashes follow their use. He had recently seen a child with paraplegia from rheumatism. Ten grains of the iodide three times a day caused its disappearance. He thought it interesting that in Dr. Anstie's case the symptoms should disappear after such a length of time. He was surprised he had not used the constant current. The question had been raised as to how a local remedy like the constant-current could affect such maladies. Dr. Hughlings-Jackson had pointed out that local injury often produced such conditions; and so local remedies might remove them.

Mr. Holthouse asked how they were to account for paralysis of the orbicularis? He had seen petechiæ produced by iodide of potassium. He looked on the iodide as a kind of test for syphilis, as in ulcers. He referred to a case where nothing did good till black-wash and iodide of potassium were used.

Dr. Moxon, in reply, said there was no history of a blow. Mr. Bader had only very recently examined the eye. He thought they must not conclude, because iodide of potassium cured the condition, that it was due to syphilis.

Mr. George Lawson remarked that it was rare to have congestion, etc., with ptosis; and Dr. Anstie, that exposure was by no means necessary to produce corneal ulceration.

Mr. Carter said No, certainly not, if the inner portion of the ophthalmic were affected.

Dr. Glover described a case of Aphasia in a patient under his care at the Holloway and North Islington Dispensary. G. P., aged 63, an intelligent workman in a varnish and colour manufactory, came under treatment in the beginning of September with a very imperfect power of expressing himself, a furred tongue, high-coloured urine, and a weak pulse. The affection of the faculty of language was peculiar. Many words the patient could say quite well, but he was greatly embarrassed for want of the proper words. This appeared in his attempt to answer questions, and especially when asked to say what the names of particular objects were. Dr. Glover gave several curious illustrations. One day, on being shown a book and asked what it was, he said "good," "house," "butter." On being asked to write the name, he said, "a good"; then he remembered the right word, and said "book." On a watch being shown to him, and being asked for the name of it, he said "*Tempus fugit*," but could not say the proper word; but, on being asked to write it, he wrote "watch." He called a ring "a knife," and purse "bug," "hook," "bug," "a pocket-book." One day, after naming the door and the fire, and being asked the name of the window, he was greatly puzzled, and said "five," "glass and sash"; he was then quite confused for a few minutes, and being asked to write it, he put "fire-away," "fender," "windway," "windway," "shot," "lock." Ten days later, being asked the same question, he said "windle," and quickly "a window." He seems at present to know when he answers wrongly, and is sometimes impatient, and sometimes amused at his errors and his embarrassment. There was no other symptom of cerebral disease, no hemiplegia, and either none or but the slightest difference in the sensation of the two sides. He walked well, wrote fairly, shaved well, and protruded his tongue straight. Dr. Glover remarked that the case was especially interesting for being simple and uncomplicated with any lesion of intelligence or of motion, such as right hemiplegia. There was nothing to indicate any affection of the left hemisphere more than one of the right, as M. Broca's remarkable theory supposed, which localised this disease in some lesion of the third left anterior convolution. Seven or eight months ago the patient had had a similar attack, which only incapacitated him for work one whole day, by reason of the way in which he put wrong names on the varnish cases. The present attack began about eight o'clock one morning in the water-closet. He seemed to lose himself. He foamed at the mouth and fell down, but not quite unconsciously, for he tried to save himself. He lost his speech, but spoke a little, cried a little, and seemed inclined to fret. He walked home with the help of a young man, who gave these particulars of the attack, and who thought that at the time the face was drawn to the left side. There was no drawing of the mouth since Dr. Glover attended him, and he saw him the day after the attack. Occasionally, the heart and pulse were irregular; at other times, and generally, they were regular, but weak. There was no abnormal sound. Mr. Carter had kindly examined the eyes, but the existence of lenticular opacity made it impossible to get any help in diagnosis from the state of the fundus. The patient's previous health had been good, excepting yellow fever in 1833 or 1834. He never had rheumatism or syphilis. The treatment at first was chiefly expectant. Latterly, ammonia and a little wine and beef have been its principal features. The aphasia had become rather less, though still persistent. Dr. Glover thought the symptoms might be attributed to either softening, or embolism, or slight extravasation affecting a very limited portion of the brain, and inclined rather to extravasation, from

the persistence of the aphasia and the nature of the attack. The patient was present, and was examined by various members of the Society.

Dr. Baümler asked if there was any lead-poisoning.

Dr. Hughlings-Jackson thought that since the patient made mistakes in words, and could not express himself correctly in writing, the author was justified by usage in calling the very interesting case he had related one of aphasia, but he (Dr. Jackson) suggested that this term should be restricted to cases of more or less *loss* of speech. He thought a term was wanted for the other condition, that of disorder of speech—mistakes in words, for instance. He believed these two conditions were fundamentally opposite conditions, and that the mental states of the patients were different. For example, in cases of loss of speech the patient readily understands what is said to him, whereas in cases where making mistakes in words is the chief phenomenon it frequently happens that the patient does not readily understand what is said to him. He supposed that disorder of speech was more frequently the result of plugging of vessels, in young people especially, than of other pathological lesions, such as clot; but would not speak so confidently on this point as he had formerly done. The absence of hemiplegia in cases of affection of speech was very uncommon. It occasionally happened that the hemiplegia passed off when even complete loss of speech remained, but it was very rare for there to be absolutely no one-sided symptoms at first. Dr. Hughlings-Jackson mentioned a case in which the only paralysis in a patient who could say but one word—"yes"—was of the right side of the face, of the kind and degree usually found in cases of hemiplegia.

Dr. Broadbent remarked that here the man's account was taken, and yet the man was making mistakes in words. The condition was rather amnesia than aphasia, and he would not expect to find the third frontal convolution affected. It reminded him of a case where a man had a good vocabulary, yet could not name a single object. There had in that case been two hæmorrhages near the lateral ventricle, destroying the perforating fibres.

Dr. Anstie had seen confusion of words from temporary depression, as diarrhœa. He thought this was a case of right hemiplegia, of embolic origin, with little confusion and loss of memory.

Dr. Moxon asked if the suggested words were immediately accepted; if so, that would remove the case from the region of aphasia. Sometimes one can induce an aphasic to use a word by frequent repetition.

Dr. Althaus had seen aphasia without right hemiplegia, but with affection of the fifth.

Dr. Glover said there was no lead-poisoning, and no affection of the fifth.

OBITUARY.

THOMAS STAWELL BARRY, M.R.C.S. Eng., Staff-Surgeon,

Died on November 21 last, at Charles-street, Cavendish-square, aged 36. He entered the service in February, 1855, and became Surgeon in October, 1869. He served in the Crimea from May 8, 1855, and was present at the capture of Kertch and Yeni Kale, the siege and fall of Sebastopol, and storming of the Redan on September 8 (medal with clasp and Turkish medal). He was with the Central India field force under Sir Hugh Rose, and was in Medical charge of the 86th Regiment at the action of Koonch, the operations before Calpee, battle of Gowlowlee (on which occasion he was mentioned in dispatches), the capture of the town and fort of Calpee, battle of Morar, battle before Gwalior, and capture of the town and fortress. He was subsequently in Medical charge of a flying column in the Jhansi and Gwalior districts. He received the medal and clasp.

PUREFRY HUDDLESTON DICKEN, M.R.C.S.

This promising young Surgeon was the third son of the Rev. Dr. Dicken, of Norton Rectory, near Bury St. Edmunds, Suffolk, and died from disease of the heart at his father's residence, on October 24, aged 22 years. He received the first part of his education at the Charterhouse, of which his uncle, the Rev C. R. Dicken, was then one of the masters. He afterwards went to Ipswich under the Rev. Dr. Holden, whence he proceeded to study Medicine under T. C. Crosse, Esq., one of the Surgeons of Norwich Hospital. He pursued his studies at St. Bartholomew's Hospital, and was elected a Scholar of that College in September last. He took great delight in entomology and botany, in which he had made some rather extensive collections.

MEDICAL NEWS.

Royal College of Surgeons of England.—The following Members of the College, having undergone the necessary examinations, were admitted Licentiates in Midwifery at a meeting of the Board on the 6th inst.:—

Bodman, Francis Henry, M.D. Aberdeen, Devizes, Wilts, diploma of Membership dated July 28, 1871.
Harbinson, Alexander, M.D. Queen's University, Ireland, Newry, county Down, November 17, 1871.
Hughes, Evan Thos., L.R.C.P. Edin. and L.S.A., Tanyrallt, Llanfachraith, Anglesea, July 25, 1871.

Two candidates, having failed to acquit themselves to the satisfaction of the Board, were referred.

Apothecaries' Hall.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, November 30, 1871:—

Dickson, Thomas, Preston, Lancashire.
Oates, James Pimlott, Stourbridge.

As Assistants in compounding and dispensing medicines—

Pattinson, Dan, Dearham, Cumberland.
Simpson, John, Colchester.
Williamson, Nicholas, Harrington, Cumberland.

The following gentlemen also on the same day passed their first Professional examination:—

Bevers, Edmund Augustine, Guy's Hospital.
Cornfield, Thomas, London Hospital.
Manser, Robert, Guy's Hospital.
Vowell, Charles Martin, King's College Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Braithwaite, James, M.D. Lond., M.B., M.R.C.S.E., L.S.A.—Assistant-Surgeon to the Hospital for Women and Children, Leeds.

Burroughs, George Edward Elton, L.K.& Q.C.P. Ire., L.M. of the same College, M.R.C.S.E., and L.S.A. Lond.—Medical Officer of the Prees District of the Wem Union, *vice* Mr. Wetherhead, deceased.

Carter, Alfaen H., M.B. Lond., M.R.C.S., L.S.A.—Assistant-Physician, Medical Registrar, and Pathologist to the Wolverhampton General Hospital, *vice* Dr. A. Bottle, resigned.

Dobson, Nelson C., F.R.C.S.E.—Surgeon to the Bristol General Hospital, *vice* H. Marshall, M.D., F.R.C.S., F.R.S. Edin., resigned.

Eagar, R. T. S., M.B., L.M. Edin., M.R.C.S.E.—Assistant House-Surgeon to the Public Hospital and Dispensary, Sheffield.

Fairbank, John, M.R.C.S.—Surgeon-Dentist to Charing-cross Hospital, *vice* Mr. G. A. Canton, M.R.C.S., resigned.

Hammond, Edward Beck, M.R.C.S.—Medical Officer and Public Vaccinator for the Claydon District, Bosmere and Claydon Union, *vice* H. O. Rowland, deceased.

Marshall, Henry, M.D., F.R.C.S., F.R.S. Edin.—Honorary and Consulting Surgeon to the Bristol General Hospital.

Noakes, S. S., L.R.C.P. Lond., M.R.C.S., L.S.A.—House-Surgeon to the Teignmouth, Dawlish, and Newton Infirmary, Devonshire.

Peacock, Edwin, M.R.C.S.E., L.S.A.—Certifying Factory Surgeon for the Nuneaton District, Warwickshire.

MILITARY APPOINTMENTS.

9th Regiment of Lancers.—Staff Surgeon Robert Lewer to be Surgeon, *vice* Surgeon-Major John James Clifford, M.D., who retires upon half-pay.

6th Foot.—Staff Assistant-Surgeon Richard Exham to be Assistant-Surgeon, *vice* John Joseph Crean, appointed to the Staff.

48th Foot.—Staff Assistant-Surgeon Arthur Wellesley Roche to be Assistant-Surgeon.

66th Foot.—Staff Assistant-Surgeon Henry William Joynt to be Assistant-Surgeon, *vice* James Aloysius Joseph O'Brien, M.D., appointed to the Staff.

87th Foot.—Staff Assistant-Surgeon George Bedford Sanders to be Assistant-Surgeon, *vice* Philip Broke Smith, M.D., promoted on the Staff.

Medical Department.—Assistant-Surgeon Philip Broke Smith, M.D., from 87th Foot, to be Staff Surgeon, *vice* Robert Lewer, appointed to the 9th Lancers; Assistant-Surgeon James Aloysius Joseph O'Brien, M.D., from the 66th Foot, to be Staff Assistant-Surgeon, *vice* Henry William Joynt, appointed to be 66th Foot; Assistant-Surgeon John Joseph Crean, from the 6th Foot, to be Staff Assistant-Surgeon, *vice* Richard Exham, appointed to the 6th Foot; Staff Assistant-Surgeon James Duhy has been permitted to resign his commission.

Brevet.—Surgeon-Major John James Clifford, M.D., retired upon half-pay, late 9th Lancers, to have the honorary rank of Deputy Inspector-General of Hospitals.

Bengal Army Medical Officers.—To be Surgeons-Major: Surgeons Edward M'Kellar, M.D., Annesley Charles Castriot de Renzy. To be Surgeons: Assistant-Surgeons Charles Cameron, John Richardson, M.B., Arthur Parker Holmes, M.D., Robert Grey, M.B., John M'Naghten Fleming, M.D., Charles Frederick Oldham, Edward Ambrose Fitzgerald, George Henderson, M.D., John Reid, Peter Cullen, M.D., James Richard Johnson, Isaac Newton.

Bombay Staff Corps.—To be Surgeon-Major: Surgeon Francis George Joynt. To be Surgeon: Assistant-Surgeon Abraham Nickson Hojel.

BIRTHS.

Broadbent.—On December 2, at 44, Seymour-street, Portman-square, the wife of W. H. Broadbent, M.D., F.R.C.P., of a daughter.

Groves.—On November 30, at 13, Silver-street, London, the wife of Edward Groves, L.R.C.P., M.R.C.S., L.M., of a son.

Knaggs.—On December 5, at 72, Kentish Town-road, the wife of Dr. Knaggs, of a daughter.

Liddon.—On December 3, at Silver-street House, Taunton, the wife of Edward Liddon, M.D., of a son.

Mackenzie.—On December 3, at Sidmouth, the wife of Dr. Ingleby Mackenzie, of a son.

MARRIAGES.

Buchanan—Kenway.—On November 23, at St. Saviour's, Paddington, Walter Buchanan, M.R.C.S.E., etc., Chatham, to Jessie Wilmshurst Kenway, youngest daughter of the late John Seymour Kenway, Esq., of Bridgeport.

Lee—Blizard.—On December 4, at the parish church, Killcooly, William E. Lee, M.R.C.S.E. and L.S.A., of Moore-park, Fulham, Middlesex, to Fannie Jane, eldest daughter of Mr. George Blizard, Killcooly, county of Tipperary, Ireland.

Marshall—Close.—On December 2, at All Saints' Church, Clifton, Bristol, Henry Marshall, M.D., F.R.S., youngest son of the late Rev. James Marshall, to Constance Ellen Douglas, only surviving daughter of J. Douglas Close, Esq.

DEATHS.

Boxwell, Richard, M.B., son of the late William Boxwell, M.D., of Abbey Leix, Queen's County, at Gorey, county Wexford, on November 28, aged 39.

Callaghea, John, M.D., of Lima, Peru, and county Sligo, Ireland, at Lima, on September 29, aged 69.

Collings, Adolphus, M.D., formerly Surgeon 40th Regiment, at Grange-hill, Guernsey, on December 1, aged 56.

Elliott.—On December 2, at Manor-road, Forest-hill, the infant daughter of Mary and John W. Elliott, M.R.C.S.E.

Gilder, William Troward, late Assistant-Surgeon Scots Fusilier Guards, at Margate, on November 19, aged 83.

Henderson, Edith, third daughter of the late Dr. Henderson, and the beloved step-daughter of Alexander Robertson, Esq., J.P., at Wellington-terrace, Berwick-on-Tweed, on November 29.

Miles, Erasmus Madox, M.D., at Homefield-place, Heavitree, Devon, on December 1, aged 71.

Wilkinson, Abiah, widow of the late J. Sheldon Wilkinson, Surgeon, at Brighton, on December 3, aged 52.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

Amersham Union.—Medical Officer wanted for the second Medical District of Chesham, in this Union. Candidates must possess the qualifications prescribed by the General Orders of the Local Government Board. Applications and testimonials to Mr. Henry Bedford, Clerk, on or before December 12.

Blything Union.—Medical Officer for the Wrentham District. Candidates are required to possess the qualifications prescribed by the General Orders of the Local Government Board, and to be registered. Applications and testimonials to Mr. C. White, Clerk, on or before December 9. Election on the 11th.

Bradford Fever Hospital.—Resident Medical Superintendent. Gentlemen applying for this appointment must be duly qualified Medical Practitioners. Applications and testimonials to Mr. C. Woodcock, on or before December 11.

Carnarvonshire and Anglesey Infirmary.—House-Surgeon. Must be a registered Medical Practitioner. Applications and testimonials to the Secretary, Infirmary, Bangor, on or before January 2, 1872.

Dental Hospital, 32, Soho-square.—Lecturer on Dental Surgery and Pathology. Applications and testimonials to the Honorary Secretary, on or before December 12.

Earlswood Asylum.—Assistant Medical Officer. Must be duly qualified and registered. Applications and testimonials to the Secretary, on or before December 18.

Hospital for Sick Children, 29, Great Ormond-street, W.C.—House-Surgeon. The gentleman appointed must possess some legal qualification to practise. Applications and testimonials to the Secretary, on or before December 12. Election on the 13th; the duties to commence on the 18th.

Jersey General Dispensary.—Medical Officer. Further particulars of the Rev. P. A. Le Feuvre, Oakwalk, Jersey. The election takes place early in January, and the duties will commence on February 1.

Kilburn, Maida-vale, and St. John's-wood General Dispensary, 13, Kilburn-park-road.—Resident Medical Officer. A qualification to practice is required. Applications and testimonials to the Secretary, on or before December 13.

Liverpool Southern Hospital.—Senior House-Surgeon. Must have Medical and Surgical qualifications. Applications and testimonials to Mr. James Houghton, Treasurer, on or before December 13.

Manchester Royal Infirmary.—Senior House-Surgeon. Medical and Surgical qualifications required. Applications and testimonials to Dr. Reed, on or before December 22.

Metropolitan Free Hospital, Devonshire-square, City, E.C.—Honorary Surgeon. Must be F.R.C.S., or pledged to become such within twelve months. Applications and testimonials to Mr. G. Croxton, Secretary, on or before December 23.

North Staffordshire Infirmary.—Resident Medical Officer. The qualifications required are as follows:—M.R.C.S. Lond., Edin., or Dub., or one of the Universities; also a degree or license in Medicine from a University or duly recognised licensing body in Great Britain or Ireland. Applications and testimonials to Mr. R. Hordley, at the Infirmary, Hartshill, Stoke-upon-Trent, on or before December 20.

Nuneaton Union.—Medical Officer and Public Vaccinator for the Nuneaton District. Candidates are required to possess the qualifications prescribed by the Local Government Board. Applications and testimonials to Mr. John Estlin, Clerk, Nuneaton, on or before December 26. Election on the 27th.

Seamen's Hospital (late Dreadnought, Greenwich).—House-Physician. Candidates must possess at least one qualification. Applications and testimonials to Mr. Kemball Cook, House-Governor and Secretary, on or before December 12.

Stockwell Fever Hospital.—Resident Medical Superintendent. Medical and Surgical qualifications required. Forms of application may be obtained at the offices of the Metropolitan Asylum District, 37, Norfolk-street, Strand, on or before January 1, 1872.

University College Hospital.—Assistant Obstetric Physician. Applications to Mr. John Robson, B.A., on or before December 18.

West Bromwich District Hospital.—House-Surgeon. Medical and Surgical qualifications required. Applications and testimonials to the Hon. Sec., on or before December 16.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1861.

RESIGNATIONS.

East Retford Union.—Mr. Willan has resigned the Dunham District; area 7001; population 1338; salary £15 per annum.

Oldham Union.—Mr. Charles Murray has resigned the Workhouse; salary £65 per annum.

Pocklington Union.—The Market Weighton No. 2 District is vacant; area 15,361; population 2470; salary £19 per annum.

APPOINTMENTS.

Axminster Union.—Frederick Augustus O'Meara, L.R.C.P. Edin., L.R.C.S. Edin., L.S.A. Dub., to the Shute and Colyer Districts.

Chorlton Union.—Denis Walshe, L.R.C.P. Edin., L.R.C.S. Edin., Assistant Medical Officer of the Workhouse.

Christchurch Union.—James Henry Cartwright, M.R.C.S.E., L.S.A., to the Eastern District.

Dudley Union.—Thomas Frederic Higgs, M.R.C.S.E., L.R.C.P. Edin., L.S.A., to the Workhouse.

Eastry Union.—Thomas Edward Mason, M.D. St. And., M.R.C.S.E., L.S.A., to the Deal District.

Farnham and Hartley Wintney District School.—Robert Oke Clark, M.R.C.S.E., L.S.A., to the School.

Liverpool Union.—Henry F. Fisher, L.R.C.P. Edin., L.F.P.S.G., to the First District. James Ridley, L.R.C.S. Ire., L.K. and Q.C.P. Ire., to the Second District. Colles L. Anderson, L.R.C.S. Edin., L.R.C.P. Edin., L.S.A., to the Fifth District. Frederick W. Lowndes, M.R.C.S.E., L.S.A., to the Sixth District. Thorburn Paterson, L.R.C.P. Edin., L.R.C.S. Edin., to the Seventh District.

Market Bosworth Union.—Frederic James Orford, M.R.C.S., L.S.A., to the Market Bosworth District. David P. Thomas, M.R.C.S., L.S.A., to the Workhouse.

Monmouth Union.—George A. Norman, L.R.C.P. Edin., L.R.C.S. Edin., to the Rockfield District.

Romford Union.—Albert Wm. Wallis, M.R.C.S.E., L.S.A., to the Seventh District.

Toxteth-park Township.—Robert Atchison Keys, L.R.C.S. Edin., L.R.C.P. Edin., to the Workhouse.

West Derby Union.—Robert John Sprakeling, M.R.C.S.E., L.S.A., to the Bootle-cum-Linacre District.

Wigton Union.—William Brown, L.R.C.S. Edin., L.R.C.P. Edin., to the Caldbeck District.

Arts Examinations.—At the Preliminary Examination for the diploma of Fellowship and Membership of the Royal College of Surgeons, commencing on the 19th inst., 72 candidates have entered their names for the former distinction, and 232 for the latter—making a total of 304, against 337 last December.

Royal Institution of Great Britain.—At the general monthly meeting, held on Monday, December 4, 1871, Sir Henry Holland, Bart., M.D., D.C.L., F.R.S., President, in the chair, His Majesty Dom Pedro II. d'Alcantara, Emperor of Brazil, K.G., F.R.S., was elected an Honorary Member of the Royal Institution; and John Fleming, Esq., Mrs. G. H. Gibb, Alfred North, Esq., John Penn, jun., Esq., and Col. Edward Webb were elected Members of this Institution. The following lecture arrangements for the ensuing season were announced:—*Christmas Lectures* (adapted to a juvenile auditory): Prof. Tyndall, LL.D., F.R.S., six lectures "On Ice, Water, Vapour, and Air," on December 28, 30, 1871; January 2, 4, 6, 9, 1872. *Before Easter*, 1872: Dr. W. Rutherford, F.R.S.E., ten lectures "On the Nervous and Circulatory Systems," on Tuesdays, January 16 to March 19. Prof.

Odling, F.R.S., ten lectures "On the Chemistry of Alkalies and Alkali Manufacture," on Thursdays, January 18 to March 21. W. B. Donne, Esq., six lectures "On the Theatre in Shakespeare's Time," on Saturdays, January 20 to February 24. Moncure D. Conway, Esq., four lectures "On Demonology," on Saturdays, March 2 to 23. *After Easter*, 1872: Dr. Wm. A. Guy, F.R.S., three lectures "On Statistics, Social Science, and Political Economy," on Tuesdays, April 9, 16, and 23. Edward B. Tylor, Esq., F.R.S., six lectures "On the Development of Belief and Custom amongst the Lower Races of Mankind," on Tuesdays, April 30 to June 4. Professor Tyndall, LL.D., F.R.S., nine lectures, on Thursdays, April 11 to June 6. R. A. Proctor, Esq., B.A., F.R.A.S., five lectures "On Star Depths," on Saturdays, April 13 to May 11. Professor Roscoe, F.R.S., four lectures "On the Chemical Action of Light," on Saturdays, May 18 to June 8. The Friday evening discourses before Easter will probably be given by Mr. W. R. Grove, Q.C., the Archbishop of Westminster, Professors Odling and Humphry, Dr. Gladstone, Messrs. C. W. Siemens, R. Liebreich, John Evans, and Professor Tyndall.

Assistant-Surgeon Francis H. Webb has been appointed Assistant-Professor of Pathology at the Army Medical School.

The deaths in Paris last week show an increase as compared with the week previous, the numbers being 800, against 708.

Lord Leigh laid, on Monday, with full Masonic honours, the foundation-stone of the new building to be added to the Queen's Hospital, Birmingham.

Dr. Prosser James has been elected Corresponding Member of the Academy of Medicine of Madrid.

A severe outbreak of cholera has occurred at Delhi, but is said to be decreasing.

Cottage Hospitals are to be erected at Sandgate and Trafford-Southwell.

Dr. McCormack, of Southampton, has been elected Medical Officer of Lambeth, at a salary of 500*l.* a year.

Sir David Baxter, Bart., has signified his intention to erect and maintain in all time coming a Convalescent Hospital at Dundee, capable of accommodating sixty patients.

Medical Studies at Cambridge.—Professor Humphry has given notice that, in accordance with the recommendation of the Board of Medical Studies, "that Students of Medicine should be encouraged to remain in the University and pursue their studies during part at least of the Christmas and long vacations," the opportunities for the study of Practical Anatomy, and the superintendence of the same, will be continued during the approaching Christmas vacation. The course of lectures on Practical Anatomy will be continued till the end of the present term, and will be resumed at the beginning of next term—Monday, January 15, at 6 p.m.

Cambridge University.—The annual dinner of the Cambridge Philosophical Society was held in the hall of Jesus College on November 24, Dr. Humphry, the President, in the chair, supported by the Earl of Kintore, the Presidents of the Royal Colleges of Physicians and Surgeons, Professors Huxley and Williamson, and Dr. Carpenter. The Master of St. Peter's College proposed the toast of "The Presidents of the Colleges of Physicians and Surgeons," and both those gentlemen expressed their satisfaction at the steps taken by the University in Medical study, and their willingness to co-operate heartily in the promotion of a joint board of the University and other licensing bodies. Professor Huxley, in proposing "The University," complimented them upon the advance they had made in natural science.

Mr. William Arthur Brailey, B.A., M.B., was on Saturday last elected a Fellow of Downing College. Mr. Brailey took his degree of B.A. in 1868, and in 1867 was second in the first class of the Natural Science tripos. He also passed the three examinations for the degree of M.B., and was recently appointed House-Physician to Addenbrooke's Hospital. The Fellowship to which he was elected is a non-residence one, tenable for twelve years from election, provided he does not enter into holy orders within the first six years, and is not vacated on marriage. These non-resident Fellowships are intended for persons in the active pursuit of the studies of law or Medicine. *Apropos* of holy orders, the holder of the Fellowship may continue to hold it for the remaining period of six years if he does not enter into orders within the first six years—affording another instance, in such case, of a clerical Physician.

Dr. Baker has resigned his appointment of Medical Officer of Health of the north district of St. George's-in-the-East. At the request of Dr. Sutcliffe, the Board has transferred him to the district rendered vacant by the resignation of Dr. Baker. The election is to take place on the 15th instant.

Indiscriminate Gratuitous Advice. — Indiscriminate gratuitous Medical advice is most prejudicial to the interests of the public and the Profession. It has formed the theme of many a sermon, lecture, essay, and letter. But it is deeply rooted in the habits of the people, and not sufficiently opposed by Medical Practitioners themselves. It is gratifying to announce that the Camden and Kentish Town Committee have adopted the rules lately suggested by the Medical Committee of the Charity Organisation Society.

A Defendant Fined for neglecting to Disinfect a Bed.—At Marlborough-street, on Friday, the 1st inst., Mary Rennary was charged with neglecting to disinfect a bed upon which a person suffering from small-pox had died. The sister of the deceased gave the bed to the defendant, who promised to take it to the stoneyard, where the parish have provided apparatus for disinfecting bedding and bedclothes. The defendant, however, according to the evidence of Mr. T. Lloyd Lightfoot, Sanitary Inspector of the parish of St. Marylebone, had not used proper means to cleanse the bed in question, and the consequence had been that two persons who had slept on it had been attacked by small-pox. Witness found that a man had been to a person named Aarons, a dealer in second-hand furniture, living near the defendant, and had offered the bed with other articles for sale. Aarons, however, did not buy the bed. Mr. Mansfield fined the defendant 20s., with 5s. costs.

Unhealthy Dwellings.—The following extract from Mr. Liddle's Quarterly Report of the Sanitary Condition of the Whitechapel District gives an admirable summary of the duties of Officers of Health as regards unhealthy dwellings:—"It is the duty of the Medical Officers of Health to bring under the notice of their Local Boards all such houses as are unfit for habitation, so that the Local Board may adopt such proceedings in each case as their legal adviser may recommend. The Artisans' and Labourers' Dwellings Act is not a permissive Act as regards the duty of the Medical Officer of Health in reporting to the Local Board all such houses as are unfit for habitation, but it makes it imperative upon such officer to do so—the word 'shall' being used in the Act; and if the Medical Officer of Health shall fail in his duty in not reporting to the Local Board such houses which are unfit for habitation, then any four householders living in or near to any street in which there are any houses which, in their opinion, are unfit for habitation, can direct the attention of the Medical Officer of Health thereto, who, upon receiving information in writing, signed by them, must make a report to the Local Board upon the condition of the houses complained of. It is of no use in the public saying, as is frequently the case, that half the houses in London occupied by the poorer classes should be demolished, when no one is willing to specify, in the form required by the Act, the particular houses which are unfit for habitation."

The Adulteration of Coffee.—The number of *Food, Water, and Air* for this month contains an article on the "Adulteration of Coffee." It shows that while of thirty-four samples examined some years since no less than thirty-one were adulterated, of eighteen samples now reported upon five only were adulterated; that while, in the former case, the adulterants consisted of chicory, roasted corn, beans, and burnt sugar, or black-jack, in the present instance chicory only was met with. These results show a very great improvement in the state in which ground coffee is now sold to the public, and prove that in this article, at all events, adulteration has much declined. The report contains the following exceedingly simple directions for detecting the adulteration of coffee:—"If, then, on opening the package the contents are caked, or show any disposition to cake, chicory is present. If, on adding a few drops of cold water to a grain or two of the suspected article, the water becomes almost immediately of a brown colour, chicory is surely contained in it. If, further, on touching the particles, which have been wetted with water and spread out on a slip of glass, with the point of a needle, some are found which are non-resisting, soft, and yielding, the sample is adulterated. Lastly, the presence of chicory is immediately revealed by the great difference in the forms of the cells as seen under the microscope, these being in the case of coffee coherent and angular, and in that of chicory rounded and vesicular; the differences are so marked that, once seen, they can never be forgotten."

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Mr. S. K. Cotter.—Your letter, with enclosure, has arrived. The request received immediate attention.

Aye or No.—No.

Parens.—The thing is treated of in Copland's "Dictionary," art. "Debility." He says that old people love to have children to sleep with them, and that it robs the children of health and strength. In case of doubt, act on the safe side.

Venator.—Dumb madness is hydrophobia with paralysis of the muscles of the throat and jaws, so that the dog can neither bark nor swallow. It is well known and described in veterinary works—as Youatt's. That Mr. Grantly Berkely never heard of it, can only be explained by himself.

E. B.—Liebig's essence is very valuable. It contains the elements of muscular flesh, but no gelatine nor albumen. It is also rendered dark by the heat employed. Thus, too, it acquires the taste and smell of roast meat—as Liebig says. It is best used not alone, but to enrich soups made with bones and vegetables.

G.—We are acquainted with both processes, and think both good for moderate investment. Jones's meat-preserving process produces meat in tins, but differs from the ordinary way of putting up meat in tins, inasmuch as every tin is subject to exhaustion by a vacuum, so that all moisture is extracted. The meat looks like good roast or boiled meat, and is dry; not immersed in a mass of gravy and jelly. The process of preserving by pressure promises results more economical—and, therefore, important—than any other. We wish them both success.

Melbourne.—Our attention is called by several correspondents to a most objectionable advertisement which appears in the *Pastoral Times* (Deniliquin). It is issued by Mr. Beaney, who styles himself "late Surgeon to the Melbourne General Hospital, and late Surgeon to her Majesty's forces." We can only express our regret that so objectionable an announcement should have been issued by Mr. Beaney.

Cesspools.—The *Builder* has the following important remarks on this subject:—

"Two months ago, after pointing to the condition in which the drains and cesspits of many large country houses are, we wrote, as, in other words, we had written years before:—'To remedy these evils will certainly cost money, and money is more readily spared for fashion than for domestic comfort and means of health. The annual cost of a couple of racehorses would put the family mansion into a sound sanitary state. But the annual vote is for the racehorses, and the foul sewers are left to become still fouler, and the family rats are left in peace. Vast sanitary improvements have been made during the last thirty years, but very much remains to be done. There are buried dumb-wells to be rooted out when discovered, sewers of deposit to be reconstructed, and country mansions generally to be properly sewered and drained. Men have yet this prime lesson to learn—namely, that means of health in their dwelling-houses are worth far more than rich furniture and costly picture-galleries, and that these means of health cannot be secured until all cesspits, cesspools, and dumb-wells have been abolished, and there is a dry subsoil absolutely free from the possibility of sewage taint.' If we had written with a view to the particular incident now before us, other words would scarcely have been used. Will the warning, emphasised as it is, now be taken?"

The Action of Condy's Fluid on Metals.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—The statement which was made before the Army Sanitary Commission, by Dr. R. Angus Smith, in answer to a question (No. 2725) put to him by Dr. Farr, and to which Mr. Oakman has called attention in your issue of the 25th ult.—namely, that "Condy's Fluid oxidises metals"—is utterly destitute of foundation in fact. It would not even be easy to imagine how the notion came into the mind of a chemist of some pretensions to practical knowledge, except as a haphazard surmise engendered by the universally known (to chemists) circumstance, that permanganates act readily on oxidisable metals *in solution*. But the object of Dr. Farr's question was to ascertain whether Condy's Fluid was destructive of metal objects, such as ships' fastenings, pump-boxes, etc.; and it is not improbable that he and his brother-Commissioners, erroneously relying on the answer given, were satisfied to believe that Condy's Fluid could not be introduced into some branches of the military service—troop-ships, for instance—on account of its supposed corrosive action on metals, and may have continued in the same belief ever since.

Although we might, in disproof of the statement in question, have appealed to certain iron pans, which we have used, without change or repair, during thirteen years in the manufacture of Condy's Fluid, we prefer to adduce the following report of some experiments which, at our request, were made by a scientific chemist, and which anyone is able to confirm. We are, &c.,

December 4, 1871. Bollmann, Condy, and Co.

"South London School of Chemistry and Pharmacy,
231, Kennington-road, S.E.,
London, March 11, 1870.

"I certify that iron and mixed metals of the nature of brass, as represented by needles and pins, after having been immersed during six months in Condy's Fluid, were, on being withdrawn, found practically intact. The needles came out of the same weight which they had on being introduced. The pins, with the unimportant exception of a very slight iridescent film on their surface, which to the blowpipe showed traces of copper, had otherwise resisted the action of the fluid. (Signed)

"John Muter, Ph.D., F.C.S., Professor of Chemistry."

J. G., jun., St. George's.—To soften and clean sponges, put a teaspoonful of the liq. sodæ chlorinat. in half a tumblerful of water, and wash well.

Mr. Maxwell, Barnstaple.—On making immediate application your son might perhaps be in time for the ensuing Examination in Arts at the College of Surgeons.

F.R.C.S. Exam., Devonport.—The Council will meet on Thursday next to receive the report.

George Washington Evans.—The attention of the Council of the Royal College of Surgeons has been called several times to the pamphlets of this person, and at a meeting yesterday it was resolved to take prompt measures on the subject. We shall recur to this matter next week.

Dr. Jackson.—You will find a portrait and biography of B. S. Albinus in Pettigrew's "Medical Portrait Gallery," vol. i.

Oxbridge.—By custom and courtesy the gentleman is entitled to call himself Doctor. It is not, however, very good taste to presume on this; but if a gentleman chooses to style himself in any one way, it is more courteous to accord him that title when meeting than to refuse it. Speaking of him to a third party, an explanation is legitimate.

Celibacy.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—"I shall send for the best Physician the place affords. If I am delirious to-morrow, or unable to give my own orders, have the kindness to send express for Dr. Holland; but don't leave yourself, my good fellow. At my age it is a hard thing to have no one in the world to care for me in illness; d——n affection when I am well." This extract from Bulwer hits many an old bachelor who, from force of circumstances or inclination, remains single. Hercules Daddles, C.B., for many years confessed to 55, with (thanks to art) a fine complexion, dark hair, and splendid teeth, not to mention a mellow port-winey voice; during the day enjoying every advantage of the palatial comforts of the club, at night he retires to solitude—never mind where.

At times, specially in foggy December, he feels less juvenile than of yore, and one fine day he trips over a piece of orange-peel, or an attack of bronchitic asthma makes him prisoner. The club goes on the same—his absence possibly a relief; his knife and fork another man takes; and his obituary in the *Times* but excites momentary interest. From the Faculty he will receive the best and kindest attention; equally good nursing can easily be obtained. But in a small room, in a noisy street, the landlady unsympathetic, and the other lodgers afraid of fever, what chance has the poor old fellow of being made comfortable? The rich have many friends, and where the carcase is the eagles will be gathered together; but will these friends personally take their turn of nursing, having their own interests, their families, and their business to attend to? But Daddles, an honourable and gallant gentleman, though from childhood upwards accustomed to superior comforts, is not rich, and the deprivation of these comforts in old age and sickness will be severely felt. In the grave we are all equal; and it did not disturb the sleep of the great Napoleon, who "desired that his body might rest on the banks of the Seine, among the people he had loved so well," when the Commune proposed mixing his ashes with those of Tropmann, the murderer. Some men keep mistresses, others marry cooks, many have drawn prizes in the lottery of life in the shape of happy homes; but I have not been drawing on imagination for the solitary old man with one foot in the club, the other directed towards Kensal-green, whose case deserves consideration. Now, supposing each member of the "Army and Navy," the Senior or the Junior United Service, paid annually a subscription entitling him to Hospital treatment when ill, the sum thus raised would enable St. George's, King's College, or any other institution, to fit up a special ward for gentlemen, and, according to the means of the patient, the talent of the country would be at his disposal, care being taken to prevent abuse. Just now spending a month's leave pleasantly in London, "walking the Hospitals," it is a matter of perfect astonishment to notice the crowds of well-dressed people attending as out-patients who could well afford to pay. It is cruel and hard on general Practitioners that they should be thus robbed. So, in the schema proposed, these club-men, when able, would be expected to "shell out" handsomely.

"*Libero lecto nihil jucundius*," remarks the old bachelor—mesniog all the time "The grapes are sour." Having bought experience and undergone trials—including one for breach of promise, which swallowed up every single rupee received from the Nizam of Hyderabad—the question is one of vital personal importance, and a great deal more might be written. Unfortunately, the agonies of composition are intensified by a superannuated piano, the cabs driving by, screaming children, and a sewing machine warranted to give one the "devil's jumps"; besides, it is time to prepare to dine at the "Ship and Turtle." Not liking to take a legal opinion, having burnt one's fingers quite sufficiently, could you—as editors are expected to be omniscient—kindly tell me if there is no redress for being nicknamed

Old Silenus.

A New Vaccinating Apparatus.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I have much pleasure in at last being able to present my colleagues with two specimens of instruments for vaccination, although these unique instruments cost me nearly £3 for the pattern, I understand from Messrs. Maw, Son, and Thompson, to whom I am much indebted for the production of so neat and useful an apparatus for the successful carrying out of that most necessary but simple operation—*vaccination*—which has been so much dreaded by many of late, on account, as they state, of dirty lancets being used, causing an obnoxious eruption of which their offspring had never suffered before vaccination, laying it, of course, to that simple cause, but of which I have carefully explained could not be the case; but all my explanations would not alter their ignorant ideas. Several attempts have been made to produce an instrument such as I required, by many, but all seemed to fail, and even Messrs. Maw, Son, and Thompson made several unsuccessful attempts; yet they were at last enabled with much painstaking to produce these two little instruments. Their costing so much will deter many from purchasing; but I understand from them that if they were generally adopted, similar instruments could now be produced on a moderate scale I took the hint from my friend Dr. W. S. Playfair, of 5, Curzon-street, Mayfair, who offered to vaccinate me during the dreadful epidemic of small-pox in Islington this year by what I considered a novel method—viz., with a single glass tube containing cotton-wool moistened with strong ammonia

until the cuticle was taken off, and then applying the lymph. This causing much pain in applying the glass tube three or four times to insure three or four vesicles, and also by the length of time—from one to two minutes—in erasing the cuticle, which is not always convenient, and particularly in infants who will not remain quiet so long, induced me to put my wits to work to see if a better and more speedy plan could not be produced, and thence the instrument with the three tubes. Finding still that babies would not remain quiet a sufficient time, induced me to try some more expeditious plan of removing the cuticle, and recollecting that boiling liquid would have that effect induced me to suggest an instrument similar to the one produced in steel. The instruments I have had movable, to enable me to vaccinate adults and infants with the same one. I think, if this plan could be more in general use, that people would not have such a dislike to having their children vaccinated, and I can prove that adults would all submit to it without a murmur. Having vaccinated over 300 during the months of February and March last, and with only three unsuccessful, I can confidently recommend it to the Profession; and when they have once used this method I have no doubt will use no other kind. In one instance I vaccinated a City clerk who had had five or six unsuccessful attempts, but his employers would insist upon the vaccination issue being carried out according to their Medical man's approval. The gentleman having heard from a friend that a Medical man practising in Islington had a novel mode of vaccinating, applied to me after ten o'clock at night, being the only time he could conveniently spare, being in a situation where his arms were always bare. The operation in taking off the cuticle occupied over three minutes; this might have been from the strength of the ammonia having evaporated, or the skin of the man being tougher than usual; but at all events the operation proved quite successful, two very fine vesicles being produced out of the three applications.

I am, &c., J. WHITEHEAD, M.D., L.S.A.

25, Clarence-terrace, Finsbury-park, N.

COMMUNICATIONS have been received from—

Mr. METCALFE JOHNSON; Mr. BEARELRY HILL; Dr. HOGG; Dr. POWELL; Dr. LIONEL BEALE; Dr. CHURCHILL; Mr. J. CHATTO; Dr. RUSSELL; Mr. FANSHAWE; Dr. FOSTER; Dr. H. SIMPSON; Dr. BUDD; Dr. OETTINGEN; Dr. HANDFIELD JONES; Mr. R. PARTRIDGE; Dr. DICKEN; Mr. SQUIRE; Dr. BRAXTON HICKS; Dr. S. MARTYN; Mr. OWEN; Dr. F. T. ROBERTS; Dr. NEILD; Mr. NOARES; Mr. BULTEEL; Dr. FLEMING; Dr. PRITCHARD; Dr. EVANS; Mr. SIBLEY; Dr. BEDDOE; Dr. SEDGWICK; Mr. C. J. THOMPSON; Dr. JAGO; Dr. HAREASHON; Dr. EMBLETON; Mr. J. M. CUNNINGHAM; Mr. T. S. EAGAR; Dr. MUTER; Dr. McOSCAR; Mr. DEMPSTER; Dr. PROSSER JAMES; Mr. ARNOTT; Mr. W. DALRYMPLE; OXBRIDGE; Mr. KESTEVEN; Mr. J. HUTCHINSON; Mr. JESS; Dr. J. WHITEHEAD; Dr. COPEMAN; Mr. A. H. CARTER; Dr. BRAITHWAITE; Mr. WOOLCOTT; Mr. HAYWARD; Mr. C. J. EGAN.

BOOKS RECEIVED—

Transformation in Form of Certain Protozoa, by Metcalfe Johnson; reprinted from the "Monthly Microscopical Journal"—Transactions of the St. Andrews Medical Graduates' Association, 1870.

PERIODICALS AND NEWSPAPERS RECEIVED—

Medical Press and Circular—New York Medical Journal, November—Practitioner, December—Journal of the Gynæcological Society of Boston, November—Food Journal, November—The Garden—Pharmaceutical Journal—Hardwicke's Science Gossip, November—Monthly Microscopical Journal, November—Tewkesbury Register—Melbourne Argus—Melbourne Age—Edinburgh Medical Journal, December—New Remedies, October—Australian Medical Gazette—Australian Medical Journal—Birmingham Daily Gazette—Edinburgh Daily Review—Philadelphia Medical Times—Aris's Birmingham Gazette.

APPOINTMENTS FOR THE WEEK.

December 9. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; King's, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

11. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

12. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY (Ballot, 8 p.m.), 8½ p.m. Dr. John Harley, "On the Pathology of Scarlatina, and its Relations to Enteric Fever."

13. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 2 p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

EPIDEMIOLOGICAL SOCIETY, 8 p.m. Meeting.

SOCIETY OF ARTS, 8 p.m. Mr. Robert Johnston, "Observations on the Esparto Plant."

14. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; West London, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

15. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

VITAL STATISTICS OF LONDON.

Week ending Saturday, December 2, 1871.

BIRTHS.

Births of Boys, 1075; Girls, 1136; Total, 2211.
Average of 10 corresponding weeks, 1861-70, 2021·3.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	935	983	1918
Average of the ten years 1861-70	774·1	765·7	1539·8
Average corrected to increased population	...	...	1684
Deaths of people aged 90 and upwards	...	...	...

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561189	7	9	9	3	10	4	3	...	1
North ...	751668	24	29	9	2	20	3	6	1	4
Central ...	333887	5	8	1	3	7	1	3	...	1
East	638928	22	22	7	1	12	3	4	4	6
South	966132	20	15	13	1	23	1	3	3	4
Total	3251804	78	83	39	10	72	12	19	8	16

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·814 in.
Mean temperature	36·4°
Highest point of thermometer	42·9°
Lowest point of thermometer	28·5°
Mean dew-point temperature	33·4°
General direction of wind	NNE. & NE.
Whole amount of rain in the week	0·12 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, December 2, 1871, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1871.*	Persons to an Acre. (1871.)	Births Registered during the week ending Dec. 2.	Deaths Registered during the week ending Dec. 2.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3263872	41·8	2211	1918	42·9	28·5	36·4	2·44	0·12	0·30
Portsmouth ...	113450	11·9	73	67	43·8	28·4	36·5	2·50	0·03	0·08
Norwich	80533	10·8	55	65	42·5	30·0	36·4	2·44	1·06	2·69
Bristol	183298	39·1	129	97	...	...	...	...	...	...
Wolverhampton ...	68476	20·2	56	74	41·8	27·1	35·3	1·84	0·03	0·08
Birmingham ...	344980	44·1	235	152	43·0	30·7	36·6	2·55	0·13	0·33
Leicester	95882	30·0	82	57	43·0	28·0	36·1	2·28	0·23	0·58
Nottingham ...	86929	43·6	57	73	42·7	28·5	36·1	2·28	0·24	0·61
Liverpool	493649	96·8	327	284	43·0	31·0	36·6	2·55	0·14	0·36
Manchester ...	356099	79·4	278	238	44·7	33·0	37·4	3·00	0·02	0·05
Salford	125422	34·3	105	87	44·3	28·7	36·6	2·55	0·09	0·23
Bradford	146987	22·3	110	72	46·0	30·5	37·9	3·28	0·08	0·20
Leeds	260657	12·1	199	154	43·0	34·0	38·0	3·33	0·20	0·51
Sheffield	241507	10·6	193	179	41·5	32·5	37·1	2·84	0·43	1·09
Hull	122266	34·3	77	56	45·0	29·0	37·1	2·84	0·10	0·25
Sunderland ...	98797	29·9	76	85	...	...	...	...	...	...
Newcastle-on-Tyne	128677	24·1	91	78	43·0	33·0	39·0	3·89	1·22	3·10
Edinburgh	201728	45·6	128	128	43·0	27·0	36·1	2·28	0·80	2·03
Glasgow	479227	94·7	384	284	47·0	27·5	37·9	3·28	0·03	0·08
Dublin (City, etc.)	310565	31·9	143	143	46·0	31·0	39·5	4·17	0·58	1·47
Total of 20 Towns in United Kingd'm	7204001	33·8	5009	4291	47·0	27·0	37·0	2·78	0·31	0·79

At the Royal Observatory, Greenwich, the mean reading of the barometer in the week was 29·81 in. The highest was 30·16 in. on Saturday morning and the lowest 29·65 in. on Thursday afternoon.

* The figures in this column are the unrevised numbers enumerated in April last, raised to the middle of the year by adding 1-10th of the rate of increase which prevailed between 1861 and 1871. As the population of Dublin and its suburbs showed a decline between the Censuses of 1861 and 1871, the enumerated number in April last has been inserted for that city, the population being assumed to be now stationary.

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,, Burgoyne, Burbidges, & Co.	,, Evans, Sons, & Co.	,, Langtons, Scott, & Edden.	,, Wyleys & Co.
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(Vide "The Lancet," Feb. 19th and May 14th, and "Medical Press and Circular," Feb. 23rd, 1870.)

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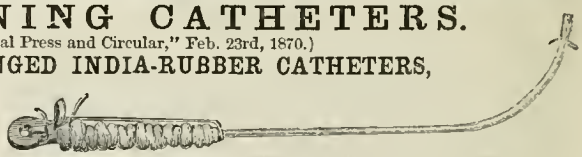

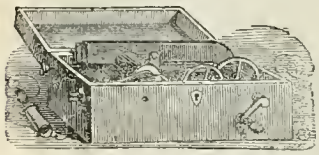

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ORIGINAL LECTURES.

LECTURES ON THE PRINCIPLES OF THE TREATMENT OF FEVER

By Dr. LIONEL S. BEALE, F.R.S.,
Fellow of the Royal College of Physicians; Physician to King's College Hospital.

Lecture I.

On the Treatment of the Febrile State.

The feverish condition which is caused by the entrance of disease germs into the organism, and their transmission by the fluids of the body to all the tissues and organs, is essentially similar to that feverish state which not unfrequently originates in changes occurring in the body itself, without being occasioned by the ingress of anything from without. In considering, therefore, the principles which should guide us in the treatment, it will be necessary to discuss the influence of remedies upon the feverish condition generally, irrespective of the causes which may have given rise to it; and it will appear that there are certain general facts of the highest importance, the proper estimate of which will lead to the adoption of certain measures of great practical value in all forms of fever, and which have to be considered even in special cases which demand peculiar and, it may be, exceptional measures.

In conducting the treatment of fever due to the presence of disease germs, we have to determine by what means the patient's life may be preserved while he remains a sufferer from the conditions caused by the growth and multiplication of the living poison within his body, or the lesions which follow in consequence of this process, or which may be brought about during the elimination from the organism of the substances resulting from the death of disease germs and of other forms of bioplasm.

On Treatment based upon the fact of the Rise of Temperature.

Acting upon the hypothesis that the danger to life from fever depends upon the increased temperature, many Physicians have adopted plans of treatment which have for their object the carrying off heat from the surface. This is accomplished by the external application of cold. Although there is evidence that cold to the surface does good in some cases in which the body-heat is above the normal standard, few Physicians feel sufficiently satisfied that conclusive proof has yet been adduced that this indication for treatment can be with wisdom fearlessly followed out in all cases.

This remarkable increased development of heat in all fevers is probably an immediate effect of another change. It is certainly associated with, and (I believe) due to, very rapid growth of bioplasm, principally in the slow-moving blood in the capillaries; but the bioplasm in the tissues external to the capillaries is also involved, and in some fevers in a very remarkable degree.(a) The increase of the bioplasm continues, as does also the development of heat, for an hour or two (and in rare instances for a much longer period) after death, and occasionally up to a certain time even in an increased ratio; and for this reason: The bioplasm being perfectly still, and everywhere surrounded by nutrient pabulum, is under the most favourable conditions for appropriating rapidly all that lies sufficiently close to it; it therefore rapidly increases until the adjacent pabulum is exhausted. But when this happens, as no fresh nutrient fluid can possibly be brought to it, the bioplasm dies, and the temperature soon falls.

Now (as will be presently explained), there is reason to think that many of our remedies act beneficially by the direct influence they exert upon the process of increase of the bioplasm in the blood and in the tissues. In fever and certain low states of the system, the bioplasm of the tissues and blood invariably increases more rapidly than in health; and, as I showed many years ago, the classes of remedies which experience has proved to be beneficial are those which check the growth of bioplasm. Stimulants effect this change quickly, and many of the so-called tonics possess this property in a very remarkable degree, though they act more slowly.

Cold reduces the temperature, and may also be instrumental in bringing about a state of things unfavourable to the growth of the bioplasm, which is the immediate cause of the rise. If, however, we could prevent the undue growth of the living matter, or check it before it has proceeded to a dangerous degree, the temperature might not rise so high as to render the external application of cold either necessary or desirable. If we proceed back yet another step in the inquiry, we shall find that the multiplication of the masses of germinal matter or bioplasm is due to the rapid appropriation of excess of pabulum. If, therefore, this pabulum were removed, or its constitution changed, or its formation prevented, there is reason to think that the increase of the bioplasm would be stopped, in which case the feverish state could not be established. Or, if the blood could be urged more quickly through the capillaries, the heat developed would be carried off, and pass away latent in vapour from the skin and lungs. The rise in temperature would not take place so long as the increased rate of the circulation compensated in this manner for the undue development of heat. This remark will appear strange to many readers who attribute increased body-heat to increased oxidation; but there can be no doubt that the view is correct, for the temperature invariably rises as the capillary circulation becomes more feeble, and, as already remarked, often obtains its maximum some time after the blood has ceased to circulate at all—when, in fact, the functions of respiration and circulation, which are specially concerned in oxidation, have ceased.

In *health* any disturbing influences are compensated with remarkable rapidity. Thus, exposure to degrees of heat or cold differing considerably from the body-temperature will produce very slight change in the internal temperature. The same thing is observed as regards alcohol. In the experiments of Parkes and Wollowicz, moderate doses of alcohol appeared to influence very little the temperature of the body or the amount of nitrogen excreted. Traces of alcohol escaped, but there can be no doubt that the larger proportion was appropriated by the bioplasm of the blood, and afterwards eliminated in the form of excrementitious matters, especially carbonic acid and water. But in fevers and inflammations the mechanism by which this process of compensation is carried out undergoes deterioration or is seriously damaged, so that artificial efforts are required to put it into operation at all. In health it works perfectly well without the introduction of any stimulus from without.(b)

The beneficial effects of external cold in febrile conditions have been long known, and cold was practically employed in the treatment of fever by Currie so long ago as 1789.

Of late years the more careful employment of the thermometer in disease, as proved to be of great value, especially by the observations of Traube, Wunderlich, Ringer, and others, and

(a) *See* my "Report on the Cattle Plague." 1870.

(b) The manner in which this compensatory action is effected has been described in my Croonian Lecture (*Proceedings of the Royal Society*, May 11, 1865), and before this in a memoir "On Deficiency of Vital Power in Disease, and on Support," published in the *British Medical Journal* for 1863. The following remarks will serve to explain the matter:—"If you press upon the distended vessels of an inflamed part, as is well known, the blood is driven out of them, and the skin becomes quite pale; but the moment the pressure is withdrawn, the redness recurs, and exhibits precisely the same tint as before. From this it is clear, not only that the capillaries are distended, but that the calibre of the small arteries through which the blood is distributed to them is much larger than in the normal condition. Besides this, the simple experiment proves that the vessels *are maintained for a long time of a given calibre*. Such a state of things can only result from the influence of nerves which govern the calibre of the small arteries; and thus the quantity of blood permitted to flow through them in a given time is regulated and varied from time to time. The mechanism is such that a small artery is made to assume a different calibre, although this may be momentarily altered by artificial means. I have shown, contrary to the statement of Kölliker, that *all* the small arteries are abundantly supplied with nerves, and that nerves also ramify in the tissues external to the capillaries, and upon the capillaries themselves. There are the *two* kinds of peripheral nerve-fibres which take part in regulating the supply of nutrient pabulum to every part of every tissue in the body:—1. The nerve-fibres distributed to the coats of small arteries and veins which ramify amongst the muscular fibres, and are *efferent* or *motor*. 2. The nerve-fibres distributed to the capillaries, and in tissues which are altogether devoid of capillaries, and which are the *afferent* or *excitor* branches connected with the centres from which the vaso-motor nerves arise. These branches have been demonstrated by me in many tissues, and form a new system of nerve-fibres, not previously described. (See *Archives*, No. xiii.) Now, any alteration taking place in the nutrition of the tissue-elements external to the capillaries must of necessity influence these excitor or afferent branches. The fibres may be subjected to increased or diminished pressure, to the influence of an increased or diminished quantity of fluid; and their numerous masses of bioplasm will necessarily be exposed to the same conditions as those of adjacent tissues. In the inflamed tissue, the bioplasts, like those of the tissues around, would receive more pabulum, and would grow faster; and where growth and increase of living matter are most active, the particular action or function of the tissue is least manifested, because function is the effect of changes in matter which has been already *formed*. Hence it is not when nerves are *growing* that we find nervous action remarkably developed, but when they *have grown*. So in the case supposed the nerves are less active than in the normal state, and, as a consequence of their inactivity or reduced irritability, we have dilatation of the vessels. A further development of the same changes will lead to paralysis, and ultimately the complete destruction of the normal tissue will follow unless the balance of nutrition is restored or death is occasioned.

now carried out by the great majority of Practitioners, both in public and private practice, has, as might have been anticipated, led to a revival of the treatment of fevers by cold. In order to form a correct judgment concerning the influence of cold upon the phenomena of fever, I would refer to the results which have been observed to succeed its application in cases of extreme severity, and I doubt if any more to the point could be selected than those which have just been published by Dr. Wilson Fox.(c) I desire more particularly to call attention to these cases, because they also afford an illustration of the free use of stimulants in the very last stage of desperate fever, at a period of the disease when the temperature was so high that a fatal termination was imminent; indeed, it is almost certain that death would have occurred had not the most decisive measures been promptly taken.

Excessive and very rapid rise in temperature is perhaps seen more frequently in acute rheumatism than in any other febrile disease. In very severe cases of this affection it is not uncommon to find a rise of 4° or 5° within a period of a few hours, death usually taking place a short time after a temperature of 107° has been reached, and sometimes before so high a maximum has been attained. The high temperature may persist for some time after death, and a further (post-mortem) considerable elevation has been witnessed. It is, indeed, seldom that recovery occurs after the temperature has reached 106° in a case of acute rheumatism; but Dr. Fox gives a full account of two remarkable cases of the disease which recovered after a temperature of 107·3° and 110° respectively had been attained. Both these cases were treated by the application of cold. In the first, when the temperature was 107°, the patient was immersed in a bath at 96°. The temperature, however, still rose until it was 110° in the rectum, when "ice was fetched; a large lump was placed on her chest, another on her abdomen; a bag filled with ice was tied down the length of her spine; and while two assistants baled the warmer water out of the bath, two others poured iced water over the patient as rapidly as the pails could be filled." *Within half an hour the temperature in the rectum had fallen to* 103·6°, *and in less than another half-hour to* 99·5°. It is, however, worthy of note that in this instance the patient took *six ounces of brandy during the time* (one hour) that the ice and cold water were being applied, when the temperature fell more than 10°. Subsequently eighteen ounces of brandy per diem were given for several days.

In Dr. Fox's second case, also, in which the temperature was reduced from 107° to 98° within an hour, large quantities of brandy (from twenty-four to twenty-eight ounces in twenty-four hours) were given; and Dr. Fox expresses a doubt whether the man would have recovered at all had the stimulant been withheld.

In a case of Dr. Meding's,(d)—quoted by Dr. Fox—the temperature fell from 108·6° to 99·5° *in five hours* during the application of ice-cold cloths to the body, and enemata of iced water given every half-hour. The pulse fell from 140 to 72, perspiration ensued, and the patient rapidly recovered. In this case no stimulant at all was administered, but the temperature fell much more slowly than in Dr. Fox's cases. It was certainly slight as compared with the two cases reported by Dr. Fox, and many that I have myself seen, and treated successfully with frequently-repeated doses of brandy without recourse to the application of cold.

Dr. Wilson Fox considers that in acute rheumatism active treatment by cold should be commenced when the temperature reaches 107°, and all Physicians who have had much experience in the treatment of desperate cases of the kind will be disposed to agree with him; for although the opinion may be fairly entertained that in many cases the rise of temperature to the danger-point may be prevented by treatment, and particularly by the administration of alcohol, it appears to me to have been fully proved that cold (with or without stimulants) is the only remedy yet tried by which the rise in temperature can be not only quickly checked, but decidedly and rapidly reduced after the high body-heat of 107° has been reached. In moderately severe cases many will doubt if there is any necessity for adopting the treatment by cold; and it is certain that many most serious cases have progressed favourably, and have recovered, under other plans of treatment, and especially under the influence of alcohol. But in such very serious instances of disease as those reported by Dr. Wilson Fox, there can be no doubt that the application of cold should be resorted to. The objections that can be made to the plan are, in my opinion, far outweighed by the circumstance that, if not adopted, the patient will almost surely die, and within an hour or two.

(c) "Treatment of Hyperpyrexia." Macmillan and Co. 1871.
(d) *Archiv. für Heilkunde*, 1870, xi., p. 467.

By merely reducing the temperature of the body, however, we do not remove the causes which have given rise to the increased development of heat. The rise in temperature is not the *cause* of the feverish condition, but a concomitant effect, or a consequence of a prior change—the increase of bioplasm. At any rate, in every one of the cases of fever that I have examined, both in man and animals, I have invariably found very considerable increase in the proportion of the bioplasm of the blood and tissues. If the bioplasm did not increase, there would have been no undue development of animal heat—no fever. This, then, seems to be the change of which the febrile or inflammatory state is an immediate consequence, and it is therefore of the utmost importance to consider carefully the various means at our disposal for preventing, or modifying, or cutting short the conditions which favour the occurrence of such a morbid change, or which may modify the intensity of the latter when it has occurred. It is also highly desirable to discuss the circumstances which, in severe forms of disease, occasion the fatal result, either suddenly or more gradually, by inducing structural changes which render impossible the continuance of life.

In all fevers and extensive general inflammations there is more or less failure of the capillary circulation, and the danger varies according to the degree of the disturbance, and the extent of tissues and important organs involved. In very severe cases, what we have to apprehend, and what our greatest efforts should be directed to avert, is *stagnation of blood in the small vessels, and cessation of the capillary circulation over a considerable part of the body.* To bring about this result, the following circumstances contribute:—1. Failure of the force of the heart. 2. Alteration in the composition of the blood. 3. Growth of the bioplasm of the blood, vessels, and tissues.

(*To be continued.*)

ORIGINAL COMMUNICATIONS.

CASE OF CONTRACTILE PHTHISIS, CAUSING REMARKABLE DISPLACEMENT OF ORGANS.

By C. THEODORE WILLIAMS, M.D. Oxon., F.R.C.P.,
Physician to the Hospital for Consumption, Brompton.

Isabella C., a married woman, aged 29, a dressmaker, was admitted under my care, April 18, 1871, and gave the following history:—

There was no consumption in the family, except in a cousin on the mother's side, who died of the disease.

For the last three years she has had cough and expectoration, and about two years ago noticed that she was decidedly emaciating. Hæmoptysis to the extent of ʒiv. came on shortly after the beginning of her illness, and she coughed up the same amount three months later, and again ʒij. two months after, in February, 1869, but has since been free from that symptom. Has had night sweats, which ceased previous to admission, and she once suffered from diarrhœa for two weeks. Lately she has complained of increasing shortness of breath, which has become very troublesome.

In September, 1869, she became an out-patient under Dr. R. Douglas Powell, who found flattening, dulness, and cavernous respiration in the upper right chest anteriorly, and tubular respiration and moist crepitation over the posterior base. He observed that the left lung was enlarged and extended to the right of the sternum, and he detected crepitation at the apex and along the posterior surface. Dr. Powell's diagnosis was, a cavity in, and contractile disease of, the right lung, and granulations in the left. He ordered an iron tonic, and at a later visit cod-liver oil, which the patient took steadily for some time.

In October, 1869, she was admitted into the Hospital under the care of Dr. Cotton, when the right lung was found to be in the same condition, but in the left, harsh blowing respiration had taken the place of the humid crepitus.

She remained in the Hospital for three months, taking phosphorated oil alternately with quinine and other bitters, and at the end of the time had gained seven pounds and a half in weight, the physical signs remaining the same. After this she continued better for some time, but the symptoms returned, and her increasing shortness of breath caused her to apply to the Hospital, where she was admitted under my care in April, 1871. Her cough was very troublesome, expectoration frothy,

tongue clean, bowels regular, catamenia absent for two years; her countenance was very pallid, and there was considerable emaciation, especially of the thorax. The right side of the chest was found to be considerably smaller than the left; the shoulder greatly depressed, and the upper portion of the chest fixed. Marked depression was visible in the upper right front as low as the third rib, this space being decidedly resonant. Cavernous breathing was heard under the clavicle, though chiefly below the sternal end. From the fifth rib downwards there was absence of breathing and marked dulness, not removable by change of position. Posteriorly, cavernous breathing was audible in the right inter- and supra-scapular regions. The heart's sounds were more audible over the lower portion of the sternum than in the cardiac region, and the apex could not be felt; it was therefore concluded that the heart was displaced towards the contracted side. The diagnosis was, contractile disease of the right lung, with some excavation of the upper portion, and displacement of the left lung, liver, and heart towards the affected side.

The patient was ordered cod-liver oil and quinine, but she did not improve; and on April 27 the evening temperature, which had been normal, rose to 100°, and three days later the morning temperature rose to 101°, and the record then remained between 100° and 101·6°, with the exception of one day, till May 14. The patient became weaker, and the breath shorter; rhonchus and harsh breathing were audible in the left lung.

On May 15 the morning temperature fell to 98·4°, and the evening to 99°; the pulse being 100; respiration 40. After this the morning and evening temperature varied from 98° to 98·5°, and on May 20 the breath became very difficult, crepitation being audible at the left base; dyspnœa increased, and the patient died on the 25th.

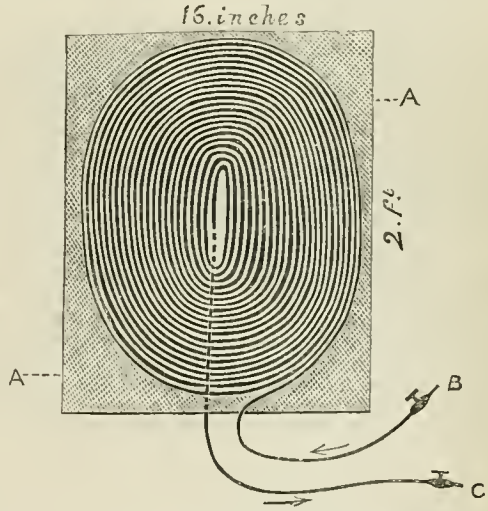
The post-mortem examination was made by my Clinical Assistant, Mr. William Rose, in the presence of Dr. Powell and myself, and the following account is taken from our notes:—The body was greatly emaciated; there was marked concavity from the right clavicle to the second rib, and general shrinking of the whole right side of the chest. On removing the cartilages, the right lung could not at first be distinguished, but was afterwards found contracted to about a third of its normal size, occupying the axillary and lateral regions, and not extending lower than the fifth rib. The heart was drawn over to the right side of the sternum, the apex being slightly to the left of the ensiform cartilage. The liver, which was much enlarged, was drawn up, and, owing to the retraction of the right lung, had become superficial below the fifth rib. It did not extend far below the margin of the ribs. The left lung stretched across the median line as far as the costo-sternal articulations on the right side, this being the case as low as the third rib. The right lung, weighing twenty ounces and a quarter, was universally adherent to the chest-wall; the pleura, with intervening adhesions, being on an average half an inch thick, and thickest over the diaphragm, where it contained in its interior a great deal of fibro-gelatinous material. The texture of the lung itself was of a dark grey colour, traversed by whitish fibrous bands proceeding from the pleura, interlobular septa, bronchi, and vascular sheaths. In the upper lobe were the remains of an old cavity, into which some bronchial tubes opened, their mucous membrane seeming to terminate at its entrance. The cavity appeared to have undergone contraction, and was divided by numerous fibrous septa stretching across it, separating it into smooth-walled loculi, which communicated with each other. The left lung was much enlarged and congested, the edges being highly emphysematous. It contained some cheesy nodules, around which were gathered miliary tubercles of recent date. In the portion drawn over to the right side of the median line was a small cavity the size of a walnut, which was doubtless the site of the cavernous respiration heard under the right clavicle. The heart was large, the right ventricle slightly dilated, valves healthy; the liver and spleen were both lardaceous; kidneys healthy.

Remarks.—Cases of phthisis with marked contraction are by no means rare, and have been recorded by various writers; but this instance is interesting on account of the remarkable amount of displacement which occurred. The shrinking of the right lung caused a void which atmospheric pressure had filled up in various ways. The chest-wall was contracted; the liver was pressed upwards, the heart to the right of the sternum, and the upper part of the left lung into the right chest. Owing to this portion of the left lung containing a cavity, it caused cavernous sounds under the right clavicle; from which it was naturally concluded, by those who had examined the patient, that the cavity existed in the right lung, whereas—strange anomaly—it really existed in the *left lung*, though in the *right chest*. This portion of the lung would doubtless, during inspiration, have reached further to the right side, and thus given rise to cavernous sounds over a wider surface of the right chest than would appear from post-mortem examination. The fact of the remains of an old cavity in the right lung might be used to explain the cavernous sounds heard by Drs. Cotton and Powell at an earlier period in the patient's history than when I examined her. It might be said that they heard a different cavity from that which I did; but this explanation is rendered improbable by the fact that, even at that period, Dr. Powell detected the presence of the left lung on the right side of the sternum, and this displacement would hardly have occurred without a previous retraction of the right lung, including its excavated upper lobe, to the axillary and lateral regions of the chest, where, if anywhere, the cavernous sounds from this source would have been audible. The condition of the pleura indicated that the disease originated in an attack of pleurisy, and that the contractile tissue had slowly extended since, gradually obliterating the lung, and giving rise to increasing dyspnœa. Death was probably caused by the congestion of, and eruption of miliary tubercle in, the left lung, by which the remaining breathing surface was further reduced in extent.

ON THE TREATMENT OF PYREXIA BY A COOLING PAD.

By WILLIAM ROBERTS, M.D., F.R.C.P.,
Physician to the Manchester Infirmary.

At a meeting of the Manchester Medical Society, I exhibited, on October 4, a pad designed to apply regulated and continuous cold or heat to the surface of the body. The annexed figure will aid the description. The pad consists of a close coil of very thin indiarubber tubing, three-eighths of an inch bore, cemented to a strong canvas backing. The terminal portions (composed of stouter tubing) reach a couple of feet from the margin of the pad, and each is closed by a stopcock, *B* and *C*. The inner end of the coil pierces the canvas backing at its centre, and passes behind the pad to its stopcock, *C*. For the



Description of the Tubular Pad.—The coil is cemented to the canvas backing A A. The stream enters the circumference of the coil at B, and makes its exit at the centre, where the tubing pierces the canvas, and passes along the back of the pad to C, and thence to a vessel on the floor.

purpose of experiment, three sizes were made—one a foot in diameter, another two feet by sixteen inches, and a third three feet by two feet. My principal object in constructing these pads was to obtain a convenient means of applying external cold in cases of fever and inflammation. The observations made in Germany on the treatment of typhoid fever by cold baths, and the more recent trials of the same treatment by Meding and Wilson Fox in the hyperpyrexia of rheumatic fever, seem to hold out hopes that we may be approaching a more effective treatment of pyrexia than has hitherto been attained. The cold bath, ice-water affusions,

and iced cloths, are all of them extremely troublesome of application, and wear so heroic an appearance, that any general introduction of them into private practice seems well-nigh impossible. But if some such means of applying cold as I am now proposing could be made effective, it would open an easy way to the study of this method of treatment, and also make it available in private practice. The procedure I have followed has been to place the pad either under the back of the patient or round the trunk next to the skin. A stream of water of any desired temperature is then conveyed through the pad, as it lies under or around the patient's body. This is accomplished by placing a reservoir of water, holding about six gallons, a foot or two above the level of the bed, and connecting this with the stopcock *B*. The most convenient form of reservoir is a tin can pierced near the bottom for a stopcock, to which a length of indiarubber tubing is attached for the purpose of connecting it with *B*. In the absence of a can of this sort, an ordinary toilet-can or large jug may be used, and the water made to flow from it into the pad by a suitable length of tubing arranged as a syphon. When the connexion is made, and the stopcocks opened, a stream of water flows through the coils of the pad, and issues at *C*, whence it is conveyed by an exit-tube to a vessel on the floor of the room. In this way a moving sheet of water, of any desired temperature, is brought into near contact with the surface of the body—only separated from the skin by a layer of indiarubber of one-thirty-second of an inch thick.

Before placing the pad under the patient, it is absolutely necessary to fill the coil completely with water. To accomplish this, the pad is placed on the floor of the apartment, near a table some four feet high. The can or jug which acts as the reservoir is then filled with warm water, and placed on the table. Connexion is now made by means of the attached lengths of indiarubber tubing, and the current is set a-going, the exit tube being placed in a shallow vessel—such as a wash-hand bowl—on the floor. The empty coil soon begins to fill, and the air within it to be expelled. The stream should be allowed to run freely for some ten minutes, in order to drive out all the air from the coil. The two stopcocks are then shut, and the pad is ready to be placed under the patient. To prevent a too sudden shock, the pad should be first filled with warm water, and then gradually cooled by adding pieces of ice to the reservoir, or by filling it up with cold water as the warm water flows away.

My trials have already satisfied me that it is easily possible to reduce the temperature of the body by the means here proposed; but whether the method will prove of practical use in the treatment of fever and inflammation must depend on further experience. The subject is of such great and urgent importance, and demands such multiplied and varied experiments to test its utility, that I have thought it desirable to make public my results at once, in the hope that some other inquirers with more leisure at command will take the matter up and institute a more elaborate research. The following observations can only be regarded as a very crude beginning:

Case 1.—M. D., aged 25. Subacute pleurisy of two weeks' standing, with large liquid effusion on the left side, in a big, robust young woman.

October 19.—6 p.m.: Pulse 108; respiration 36; temperature in axilla 103·7° Fahr. The smallest pad (one foot in diameter) was filled with warm water, and placed under the lower part of the back and buttocks. The stream of water was slowly cooled by putting pieces of ice into the reservoir. The following table shows the progress of the experiment:—

(*Smallest pad, one foot diameter.*)

Hour.	Temp. in axilla	Temperature of entering water.	Temperature of issuing water.	Remarks.
	Deg.	Deg.	Deg.	
6.15 p.m.	103·7	60	80	The pulse and respiration remained unchanged throughout the experiment.
6.50 „	103·8	50	70	
7.30 „	103·7	46	63	
7.50 „	103·6	46	63	The pad was removed at 9.
9 „	102·6	44	60	

The patient passed a comfortable night, and the temperature next morning at 10 a.m. was 100·5°. The depression of the temperature only amounted to 1° Fahr., and it took nearly three hours to produce this effect. On October 23 the patient was again more feverish, and the largest pad (three feet by two feet) was placed under the whole length of the back. The following was the result:—

(*Largest pad, three feet by two feet.*)

Hour.	Temp. in axilla	Temperature of entering water.	Temperature of issuing water.	Remarks.
	Deg.	Deg.	Deg.	
Oct. 23—4 p.m.	103·0	—	—	Pulse 108, respiration 26. Pad put under patient at 4.30, and the reservoir gradually cooled by pieces of ice.
5 „	102·9	60	78	
5.30 „	102·7	40	66	Stream running freely—about ten pints an hour.
6.30 „	101·8	38	62	
7.30 „	101·2	40	64	
8.30 „	100·8	40	70	Stream running more slowly.
9. 5 „	100·5	40	70	Stream through pad stopped at 9.5, but pad left under patient.
9.30 „	100·6	—	—	
10 „	100·8	—	—	Pad removed at 10·5. Pulse very weak (102). Patient feels cold, with slight tendency to shivering.
11 „	101·0	—	—	
Oct. 24—1.30 a.m.	104·0	—	—	Pulse 112, respiration 32.
10 „	101·4	—	—	Pulse 100, respiration 26.

From this date steady improvement set in, with rapid absorption of the fluid.

The table shows that a very decided and long-sustained depression of temperature was produced in this experiment. The cooling of the body went on steadily for four hours and a half, at the end of which time the temperature had fallen 2·5°. Then it gradually rose until 1.30 a.m., when it reached 104°—fully one degree higher than before the commencement of the experiment. Next morning at 10 a.m. it had again fallen to 101·4°.

Case 2.—My next trial was on a boy of 11, who was suffering from cardiac enlargement and valvular disease, the consequence of an old attack of rheumatic fever.

On October 17 this boy began with a sharp attack of pyrexia, of doubtful import.

On the 20th at 10.30 a.m. temperature was 104·8°. At 6 p.m. temperature 104·8°; pulse 146; respiration 50.

On the 21st the smallest pad (one foot) was placed under the lower part of the back at 5 p.m. The temperature was 103·7°; pulse 128; respiration 40. The water was cooled by ice, and entered the pad at 40° and issued at 60°. At first the temperature in the axilla rose to 104·2° at 5.30; then it very slowly fell hour by hour until 9.30, when it reached 103°; the pad was then removed. After half an hour the temperature began to rise slowly. At 11 p.m. it was 103·2°. Next morning at 11 a.m. it was the same; but the day following it fell to 99·9°, and the pyrexial symptoms permanently passed away.

The total depression of temperature in this case during an effective application of the smallest pad for four hours did not exceed 0·7°. I can only explain the temporary rise of the temperature during the first half-hour of the experiment on the supposition that a rapid spontaneous rise was taking place at the time when the experiment was commenced. The pulse and respiration were not appreciably affected during the experiment. The boy soon after left the Infirmary, all his symptoms being quiescent.

The result of this and the previous experiment on the smallest pad seemed to show that so small a cooling surface as this presented is not sufficient to produce an effective lowering of the general temperature of the body.

Case 3.—Typhoid fever at end of second week, complicated with severe capillary bronchitis, in a boy of 16.

(*Large pad, three feet by two feet.*)

Hour.	Temp. in axilla	Temperature of entering water.	Temperature of issuing water.	Remarks.
	Deg.	Deg.	Deg.	
Oct. 14—5.30 p.m.	104·7	—	—	Pad was put under (warm) at 5.30 p.m., and gradually cooled.
6.45 „	103·0	40	70	
7 „	102·6	40	70	Stream running about the rate of ten pints an hour.
7.30 „	101·6	40	70	
7.50 „	100·2	40	70	

The pad was removed at 8 p.m., and no further observations were made.

The next evening, at 6 p.m., the temperature was 104·6°.

Two days after, defervescence set in, and rapidly went on to recovery.

The cooling of the body in this case amounted to 4·5° Fahr. in two hours and twenty minutes. This is the most powerful effect I have seen produced by this method. The approaching period of normal defervescence had probably something to do with this. Ziemssen's observations show decisively that the application of external cold in typhoid is much more effective in lowering the temperature in the later than in the earlier periods of the fever.

Case 4.—A very stout young woman, aged 24, affected with acute articular rheumatism of five days' standing, without complication; nearly all the joints swollen and painful.

(*Large pad, three feet by two feet.*)

Hour.	Temp. in axilla	Temperature of entering water.	Temperature of issuing water.	Remarks.
	Deg.	Deg.	Deg.	
Oct. 31—11.30 a.m.	103·2	—	—	
2 p.m.	103·0	—	—	
3 „	103·1	—	—	
5 „	103·3	—	—	Pad put under patient at 5.15 p.m.
5.30 „	103·0	63	83	
6 „	103·0	62	86	Patient felt pad cool and comfortable.
6.30 „	103·1	61	81	
7 „	103·2	61	81	The stream flowing throughout at the rate of seven pints and a half per hour.
7.30 „	103·2	61	81	
8 „	102·9	59	80	At 7.30 patient felt better; shortly after fell asleep.
9 „	102·5	59	79	
9.30 „	102·2	59	80	
10 „	101·7	—	—	Pad was removed at 9.30
10.30 „	101·8	—	—	
11 „	101·8	—	—	
11.30 „	102·0	—	—	
Nov. 1—12.30 a.m.	102·3	—	—	Patient passed a good night.
1 „	102·5	—	—	
2 „	102·7	—	—	
10 „	102·7	—	—	

In this experiment the water was not iced, but used as it was drawn from the main. The utmost degree of cooling was 1·3° Fahr. in about five hours. The stream through the pad was running but slowly. Probably a better result would have been obtained if a swifter current had been maintained.

Two days later, the joints being still somewhat swollen and painful, the cooling pad was re-applied, with the following results:—

(*Large pad, three feet by two feet.*)

Hour.	Temp. in axilla	Temperature of entering water.	Temperature of issuing water.	Remarks.
	Deg.	Deg.	Deg.	
Nov. 3—5 p.m.	102·2	—	—	
6 „	102·2	50	70	Pad set under patient at 5.30, but running very slowly until 6.20; then set to run rapidly at rate of about twenty pints an hour to end of experiment.
7.15 „	101·7	45	69	
8 „	100·7	45	69	
9 „	100·4	—	—	Pad removed at 8, patient feeling chilly.
10 „	101·5	—	—	

At 10 a.m. next morning, temperature 101·6°. After this the joint affection subsided. Convalescence was in full progress on November 6.

Case 5.—Typhoid fever (second week) in a young woman, aged 30.

(*Medium pad, two feet by sixteen inches.*)

Hour.	Temp. in axilla	Remarks.
	Deg.	
Nov. 3— 5 p.m.	104·8	Pulse 140; respiration 30.
6 „	104·2	The pad was placed *round* the back and abdomen at 5.30, and set running at once with iced water, which entered at about 45°, and issued about 55°. The stream ran at the rate of about twenty pints an hour until 6.45. At 6.45, patient complained of cold, and shivered slightly; the pad was then withdrawn from under the body, and placed simply across the abdomen, and the current made to run very slowly. At 7.30 the patient still complained of the cold; the pad was therefore altogether removed.
6.30 „	102·8	
7 „	102·8	
7.10 „	102·7	
8 „	103·0	
9 „	104·5	
10 „	104·3	
11 „	104·4	
Nov. 4—10 a.m.	102·1	

In this experiment the maximum power of the pad was used, the water being iced and the current running very freely. The effect was proportionally great—the temperature fell 2° in an hour. The pulse fell from 140 to 120; but the respirations rose from 30 to 32. The first sensations of the patient were those of agreeable coolness; but the feeling of cold soon became uncomfortable, and slight shivering occurred, though the temperature was still 102·8°. The patient passed a good night.

On November 5 I went to re-apply the pad in the evening, but I found the temperature rapidly falling, and the patient sweating freely. From this time rapid convalescence set in.

Case 6.—Typhoid fever (end of first week); in a girl of 14. In this case the medium pad (two feet by sixteen inches) was applied on three evenings, with some rather curious results.

On November 17 the temperature ranged from 104° at 11·30 a.m., to 105·7° at 4 p.m.

On the 18th it ranged all day from 104·8° to 104·9°.

Hour.	Temp. in axilla	Remarks.
	Deg.	
Nov. 18—4 p.m.	104·8	The pad was put round the body, and set to work at 4.15. It ran for an hour, at the rate of thirty-six pints an hour, entering at 50°, and issuing at from 55° to 58°. The rate of flow was then reduced to eighteen pints per hour—the entering water being at 50°, and issuing at 59°. This was continued until 8.15, when the pad was removed. The pulse fell from 120 to 112, and became very weak, and at 7 she complained of the cold.
5 „	104·5	
6 „	103·7	
7 „	104·1	
8 „	103·1	
8.30 „	105·1	
9 „	106·1	
10 „	104·8	
11 „	105·4	

The sudden jump of the temperature, when the pad was withdrawn, from 103·1° to 106·1° in the course of an hour, is very remarkable.

On November 20 the same pad was re-applied.

Hour.	Temp. in axilla	Remarks.
	Deg.	
Nov. 20—5 p.m.	105·0	Pulse 120; respiration 40.
6 „	103·5	The pad was put round the body at 5.5, and the stream flowed at the rate of thirty-two pints per hour until 6, entering at 49°, and issuing at 52°. Then it flowed irregularly from 6 to 7, and at 8 the pad was removed.
7 „	103·9	
8 „	103·0	
9 „	106 0	
10 „	104·6	
11 „	104·0	From 5 to 8 the pulse remained steady at 120, but the respiration fell from 40 to 28.
12 „	103·0	
Nov. 21—9 a.m.	103·5	

On November 21 the same pad was again applied.

Hour.	Temp. in axilla	Remarks.
	Deg.	
Nov. 21—4 p.m.	104·4	Pulse 120; respiration 36.
4·50 „	104·5	The pad was put lengthwise under the back (not round the body) at 5.30. The stream flowed at the rate of thirty pints an hour, entering at 48°, and issuing at 52°.
6 „	104·4	
7 „	103·2	
8 „	102·5	
9 „	102·3	The patient slept from 7 to 8, and woke up feeling chilly.
9.40 „	103·6	
10 „	103·9	The pad was removed at 9.15.
10.30 „	104·1	During the experiment the pulse fell from 120 to 112, and the respiration from 36 to 28.
Nov. 22—9 a.m.	102·9	

In the course of November 22 the temperature fell throughout the day, and the defervescence went on during the next three days, the fever finally disappearing on the 25th.

It will be observed that in all the cases the depression of the temperature was only temporary. This has always been found to be the case after the use of the cold bath. It is also seen that as a rule the temperature rises after the withdrawal of the pad to a higher point than before the experiment began. But this appears to be only a temporary jump. The impression on my mind was very decided that the use of the cooling-pad was beneficial on the course of the disease.

It will be interesting to ascertain the effect of a more gradual and more sustained cooling, and to contrast the effect so obtained with the effects of a more rapid and more brief cooling frequently repeated.

In conclusion I must record my obligations to Mr. Buckley, Physician's Assistant in the Infirmary, to whose zeal and accuracy I am indebted for most of the temperature observations.(a)

DR. LYDIARD has been elected Medical Officer for the north-east district of Kensington.

(a) The pads were made by Chas. Macintosh and Co., Manchester. The price of the medium pad, which promises to be the most useful, is about 35s.

CEREBRAL AND GANGLIONIC DISORDERS OF MENTATION.

By METCALFE JOHNSON, M.R.C.S.E., L.S.A.

Part II.

(*Continued from page* 674.)

It now becomes important to take a more general glance at the cases detailed, with a view to ascertain their practical bearings not only upon the question of present remedial measures, *quoad* the patient, but more especially to inquire whether by ascertaining their causes we have not some clue to a power of adapting such persons to the customs of society through the medium of State interference.

On the subject of present treatment of the patient there is, perhaps, little to be said, except it be to point out how—as in the case of No. 10, C. L.—punishment should never be administered to a pupil until we have fully investigated his character. I grieve to say it, but I consider that, as a rule, schoolmasters ascribe to their pupils an amount of power of volition which they do not possess. Several important cases are on record in which most sad mistakes in this matter have led to most cruel castigation. On this head, also, I would venture to suggest that the subject of physiology should be especially studied by the παιδαγωγος, and by the priest in his capacity of public instructor; and to his especial study I would commend the subject of volition. We are all apt to set up ourselves as the standard whereby to judge others, but this is an error; and the more we study anatomy, the more, I think, shall we agree with Condorcet, "Cette faculté (volition) se developpe en lui par l'action des *choses extérieures.*"

One important practical suggestion arises, however, out of the consideration of the cases of A. B. and B. B.—namely, that it is desirable as far as possible to cultivate the beautiful and the pleasant during the period of pregnancy—for though we do not expect to find "a coach and horses" as a maternal nævus, yet we do find idiotcy resulting from maternal intemperance, and much injury done to children, while suckling, from fits of passion on the mother's part. Moreover, every mother desires her baby to be beautiful; and with this view the contemplation of the beautiful by the pregnant mother is likely to assist in fulfilling her desires.

The treatment of these cases by the agency of law, both as preventive and corrective, will form the subject of a few remarks in their proper place. It however behoves us first to consider that the cause of much of this permanent and functional aberration from health is the practice of making use of alcoholic drinks as a daily use and abuse.

Idiotcy is traceable to maternal inebriety. I have seen very many cases in which children, not only of a low class of intelligence, but others, in which a low class of *morale* is engendered simply from the fact that during the pregnant period the mother, who is a secret drinker, is obliged to resort to so many subterfuges to obtain ease for her craving without being subject to discovery, that her mind during that important period is filled with craft and guile to hide her fault. What can possibly prevent the child, which at this time is flesh of her flesh, from inheriting some of these mental bendings?—for "as the twig is bent the tree's inclined." This opinion is not mere theory, but, did not the violation of Professional secrecy forbid such a disclosure, I could adduce instances in some numbers confirmatory of the results.

But as regards the general aspect of the drinking habits of society towards the subject we have now in hand, the question is perhaps paramount in importance; for while it is all-engrossing as one of scientific research, it has a social bearing which claims pre-eminence at all times, but especially at the present; and, had I the pen of a ready writer,—

> "I could a tale unfold, whose lightest word
> Would harrow up thy soul,
> Make thy two eyes, like stars, start from their spheres,
>
> And each particular hair to stand on end,
> Like quills upon the fretful porcupine."

I could summon as dumb but eloquent witnesses the pale wan face and wasted skeleton of the syphilised baby, the vacant stare and gibbering scream of the idiotic child, the rigid spasms and distorted features of the epileptic youth, the hectic flush and dilated pupil of the consumptive girl, the sunken tear-injected eye of the heart-broken and belated wife, the reeling gait and bedrabbled garments of the victim of the gin-palace, the untaught children, the pauper family, and, indeed, almost every ill that flesh is heir to. These all witness to the wasting of the talent which is intrusted more or less to every man; and the great symbol of his being "lord of the fowl and the brute," instead of being cultivated to remain in the image of God, is debased to a lower condition than the animals by which he is surrounded. Here it is to be regretted that for the numberless instances of border-land insanity, which produces all these evils, the law of England offers no remedy, on protection. From too frequent experience I am sadly reminded of the home of a man of great talents, comfortable means of livelihood, and a benevolent disposition, who, by succumbing to the baneful influence of an uncontrolled sympathetic nerve, is suddenly removed from his family, unloved and unmourned. Poverty and crime render the hearth which he should have made sacred the scene of domestic strife, sorrow, and disease; the bed he should have honoured despoiled even of its coverings to satisfy the cravings of his unruly ganglia, leaving the wretched partner of his life to starve and shiver through the cold wintry nights; chairs, tables, carpets—nay, all the household gods—surreptitiously taken one after another to deposit in pledge for his one ruling passion. In the face of such misery one is tempted to exclaim—Where is the law to protect the wife and children; to deal rightly between father and son? Surely our lawgivers do not know the depths of misery and sorrow which these border-land lunatics inflict upon all around them, or there would be more willingness to combine to mitigate these evils by the strong hand of the law. What higher object, I would ask, for the philosophic investigator than to seek the cause and eradicate the curse of such a state of things as this? What better object for the philanthropic lady than to add her mite of advice and assistance in such a cause? What holier end for the disciple of Christ or the worshipper of the God of Nature than to seek to make his fellow-man better than at present? True, a journal of pure science is no place for enthusiastic pleading; but I trust that even amid the hard cold facts of philosophy there is still room for the better and holier part of our nature to develope itself in trying to "do unto others as we would they should do unto us."

In my paper (*Lancet*, March 19, 1870) I have called attention slightly to the political-economy aspect of the question; and, looking at the Great Commonwealth, as in the view laid down by Thomas Hobbes, in his "Leviathan," we see the position between the State and the individual resembling that between parent and child—the State demanding obedience, the individual asking protection.

There are now several classes of persons against whom the State does not protect the individual—

1. Drunkards, who consume earnings and acquired property, and, finally, are maintained by the State (poor-rates); Nos. 8, 10, 15.

2. Persons who, through drink, become dangerous to themselves and others; No. 15.

3. Persons who, from congenitally deranged hedonism, become injurious to the commonwealth (lunatic asylums, county rates).

4. Persons who are amenable to the laws of their country, and as such are supported by the State (prisons, county rates).

Against these persons the law affords us no protection, but enforces that we shall support them out of our hard-earned gains.

I am satisfied that paupers and prisoners are, taken as a great whole, able to earn more than it would cost to keep them; and until this desideratum is brought about by our Parliament, the State will not have performed her parental duties to the individual.

One suggestion of a practical nature arises out of this subject. To persons of the tradesman class a lunatic relative is often a very terrible burden, costing from 20s. to 30s. a week—often nearly as much as the tradesman can earn of profits. It would be a great relief if such persons could, on proof that their income is insufficient to support a lunatic, be allowed to send such lunatic to the county asylum on payment of all expenses, which would not exceed 12s. or 13s. per week.

One other fact forces itself upon my memory in connexion with this subject. The dwellings of the pauper class are, as a rule, filthy and unfit for human habitation, tending not only to foster disease, but to drive the inmates from home to the streets, the gin-shop, and the gaol. It would be well if boards of health, magistrates, and police authorities could be so combined as to compel periodical whitewashing of these tenements; but it would be still more desirable if companies could be formed to purchase the present sites of these haunts of infamy, and (following the example of London in the Holborn Viaduct) houses now the abodes of thieves, poachers, prostitutes, and paupers, might be turned into habitations for an industrial

population, and the lawless denizens driven from pillar to post, and so hooted, as it were, from off the face of society.

The inquiry into the causes of ganglionic insanity of mentation brings us face to face with a difficulty of no mean dimensions—the subject of genital use and abuse. Hitherto, unhappily, owing to the prejudices of society, the treatment of the maladies incident to genital abuse have been committed to the care of a class of men who are known as "quack Doctors," and it requires no small amount of moral courage in an orthodox Practitioner to meet this dragon of prudery *vi et armis*. There is no doubt that the derangements of the ganglionic system, known as chorea, hysteria, furor uterinus, nymphomania, etc., are due to use and abuse of the generative function, owing to some misdirected views of morality. The use of masturbation in young men arises generally from a virtuous desire to avoid the sin of fornication; and in escaping Scylla they too often founder on Charybdis.

It were presumptuous to offer a remedy for this terrible evil, but the suggestion may be allowed that the subject should receive more earnest consideration from the respectable members of our Profession than it has hitherto done. The remedies for the cerebral section of our subject are now receiving consideration from our State advisers, and the Contagious Diseases Act will be a step in the right direction. Nevertheless, there is a phase of the subject which the Contagious Diseases Act cannot touch, and that is—the real bearings of the Gamic custom in reference to age and the present habits of society. The Bills of Dr. Dalrymple and Sir Wilfrid Lawson are bringing the question of alcoholism before the Senate, and no doubt but that good will come out of them. Certain it is that in no section of *mores* is State interference more demanded than in relation to the subject of "the narcotics we indulge in."

But, with reference to the third subject, "maternal impressions," we have only hope that Mr. Huxley's proposal to teach the people physical sciences, and among them physiology, may assist in enabling the public so to understand the philosophy of marriage as to teach them to avoid some of the stumbling-blocks of their forefathers. The example of Laban with his pregnant ewes may ere long not be lost upon the present generation, and the subjects of consanguine marriage and scrofulous connexion may also receive due consideration.

There is one other subject which, as it were, evolves itself out of these considerations, and that is—the relation of the female mind to education, and the relation of that education to offspring. There is no doubt that the part played by the female in the period of utero-gestation has an influence upon the future man's or woman's nervous system greater than that of the male, and that intelligent sons may generally be traced to intelligent mothers. It becomes, then, a matter of national importance—if we can, by cultivating the physique of our women, so influence their minds as to extend their mental powers to offspring—that we should no longer allow the subject of "women's rights" to be kept in the background. It will thus be seen that the remedies for cerebral and ganglionic insanity of mentation are in the hands of State Ministers, under the able advice of the Medical Profession, and that one of our pressing needs for national good is a State Health Department and Medical men in Parliament.

Addenda.

Since my last paper was in type the two following cases have occurred in my experience, which seem to me sufficiently illustrative of the principle for which I have claimed attention, and so aptly showing the contrast between cerebral and ganglionic insanity as to deserve notice while the subject is under consideration:—

C. D., aged 40, married, and having had a family of very intelligent children (one of whom, however, shows symptoms of hydrocephalus) has been labouring under mental depression of a suicidal tendency, in consequence of a disordered liver. Her symptoms were—loaded tongue, cool skin, yellow conjunctivæ, quiet pulse, loss of appetite, loaded urine, and constipation. Her feelings of despondency were so great that she desired to commit suicide for several weeks, and it was necessary to watch and provide her with cheerful companions. Remedies were administered to relieve the liver, by acting on the kidneys, and by means of cholagogues; and as the liver symptoms disappeared the depression vanished, and she is now cheerful and almost a complete convalescent.

As a contrast to this picture is the case of Y. Z., who, at the age of 59, died suddenly of heart disease. He had been through life a morose, moody, silent man, who drank away what few wits ever belonged to him. His taciturnity prevented any proper analysis of his mind, but his habits were dirty in the extreme, and his manner more like that of a gorilla than of a man. A post-mortem examination of his brain revealed an opaque arachnoid over the whole surface, and on the left side, just behind the intra-parietal fissure, was the angular gyrus wasted away to the thickness of a small goosequill, and having the appearance of a small roll of yellow fat. The rest of the brain, though rather soft in substance, seemed in a fairly healthy condition.

These two cases present an instructive example of the two classes of insane mentation—one dependent on disorder of the ganglionic nerve, acting through the liver and the organs of digestion, while the other had its cause in a disorganised structure of a part of the brain itself; one which, though associated with removal of structure, yet developed no paralysis or loss of motile power; nor has his history presented us with any reason to suppose that such loss was ever experienced. But that some power of perception—some power to receive and convey a sensation (whatever that may have been)—must have been lost, is evident from the structural change in the gyrus referred to. It is much to be regretted that our experience of the brain and its lesions does not enable us to know what loss of sense to expect in such a case; yet I think it may be predicted that by constantly placing on record the exact portion of the cortical substance which is either so diseased or so deficient in formation as to place it *hors de combat*, in every case in which post-mortem examination reveals it to us, in course of time we may expect so to map out the brain, as to function, as once more to place the now slumbering science of phrenology in a condition to enlighten us as to a man's powers and proclivities by inspection of his central organ of mentation.

FATAL INJURY OF THE PERINEUM.

By J. FAYRER, M.D., C.S.I.,

Professor of Surgery, and Senior Surgeon, Medical College Hospital, Calcutta.

R., a Mahomedan carpenter, a healthy, vigorous man, aged 35, was admitted into the Medical College Hospital on July 21, 1871, with a lacerated and contused wound in the perineum, extending from the scrotum backwards, and a little to the right of the raphe, to within half an inch of the anus.

The accident occurred at Ranaghat, about forty miles from Calcutta: he, with eleven other men, was raising a block of wood to be sawn, when it suddenly fell from off their shoulders, and crushed him violently against another log of wood, the sharp corner of which lacerated his perineum, as above noted. The wound was externally about four inches long, and so deep as to expose the bulbous, membranous, prostatic portions of the urethra, and the neck of the bladder, extending as far as—indeed, above—the symphisis pubis, through the pelvic cavity, without injuring either the urethra, the prostate, the bladder, the rectum, or the peritoneum. The triangular ligament and levator ani were torn across, the anterior ligaments of the bladder were ruptured, and the pelvic bones fractured. The symphysis pubis was separated, and its ligaments torn. The accident occurred at 7 a.m. He was brought down by rail, and admitted about eight hours after the accident. During the journey, his companions say, he lost much blood.

On admission he was much depressed, his pulse being quick and feeble. Blood was still oozing from the depths of the wound. A catheter was passed without difficulty, and some clear and natural urine withdrawn. The wound was filled with lint, and the catheter for a time retained in the bladder, natural urine continuing to flow through it.

By the next morning the hæmorrhage had quite ceased, and he appeared to be much better, his condition having improved under the influence of rest, stimulants, and nutrients.

On July 23 unfavourable symptoms set in. He became low; pulse rapid and feeble; the right thigh swelled, became cold, and rapidly gangrenous.

On the morning of July 24 he died rather suddenly.

On making a post-mortem examination, the posterior and inner aspects of the right thigh were found to be covered with bullæ; the limb was swollen, infiltrated, and gangrenous. The adductor muscles were extensively lacerated and infiltrated, and blood effused into the limb as high as the thyroid foramen. The obturator muscles were also torn, and the obturator artery, as well as the branches of the profunda, torn across. The abdomen having been opened, blood was found to be extravasated into the subperitoneal tissue all round as high as the

level of the umbilicus, and the quantity in the pelvic cavity was so great as very much to narrow its capacity. The viscera and peritoneum were uninjured. On the right side the ascending ramus of the ischium was fractured just above the tuber ischii, and the descending ramus of the pubes was fractured below the symphysis. On the left side the ramus of the ischium was also fractured; the bodies of both pubic bones were fractured just internal to the ilee-pectineal eminence. All five fractures entered the thyroid foramen, and the fractured bones could be moved with considerable freedom on one another. The line of fracture of the two ischial bones traversed the course of the internal pudic artery, which had, on one or both sides, probably been torn across. The viscera were all free from disease, except slight congestion of the lungs.

This is a case of much interest, showing, as it does, how very severe an injury may be inflicted on the pelvic cavity without serious injury to the bladder. The tissues were violently torn, and the bones were fractured and the parts displaced; and yet both bladder and urethra, as well as ether pelvic contents, escaped injury. The entire course of the urethra, from the bulb to the neck of the bladder, was, as it were, dissected out by the injury. It appears that he had emptied his bladder about an hour before the accident occurred: had it been distended, it could hardly have escaped rupture. Death was caused by gangrene of the thigh, which resulted from the great violence done to that limb, the muscles being lacerated, and the arteries torn across.

Calcutta.

REPORTS OF HOSPITAL PRACTICE

IN

MEDICINE AND SURGERY.

MIDDLESEX HOSPITAL.

TWO CASES OF UTERINE POLYPI.

(Under the care of Mr. HULKE.)

HÆMORRHAGE is usually an early as well as a leading symptom of uterine polypi. The interest of the following case lies in the complete absence of bleeding until the polypus protruded through the vulva, its appearance externally being the first indication to the patient of the existence of the growth.

Case 1.—A tall thin blonde, aged 32, a cook, was admitted into Regent Ward on May 14, for the protrusion of an unnatural substance through the os uteri, followed by bleeding. She related that a fortnight previously she felt some discomfort, and found, on going to the closet, a roundish body, of the thickness and length of the first two joints of her little finger, protruding from her person. Profuse bleeding soon followed. A Doctor who was called to see her applied tannic acid, which checked it, and the protruding body disappeared. On an examination, the os uteri was found slightly dilated, and floating in the vagina was a long, roundish, soft polypus, not very unlike an overgrown uvula, which appeared to be attached just within the os, to its posterior lip. It was pulled down with a loop of thread, and cut off with an écraseur. No bleeding occurred, and in a few days she was discharged convalescent. A small scar marked the point of attachment.

It is commonly taught that the removal of a fibrous polypus from the uterus is never followed by recurrence, any portion of the stalk which may be left withering and finally disappearing. The general truth of this is confirmed by experience; but there are exceptions, and, in the following case, had the patient survived long enough after the removal of the first polypus, a second and even a third might have been evolved out of the original stalk.

Case 2.—A servant, aged 39, was admitted May 30, 1870, in a state of great prostration, into the cancer wards, having that morning had such profuse hæmorrhage from the womb that her Medical attendant had only restrained it by using a strong styptic injection of a salt of iron. He had looked upon the disease as cancer, and had advised her removal into the Hospital. During ten months she had suffered frequent and great losses of blood, unaccompanied, however, by any other vaginal discharge or by pain.

On a digital examination the vagina was found filled with a tough clot overlying a tumour, the nature and connexion of which could not be clearly made out without detaching the clot, and it was feared this might provoke a fresh hæmorrhage, which in the exhausted state of the patient would very likely be fatal.

Four days afterwards the bleeding recurred, and at a consultation with Dr. Davis and Mr. De Morgan the tumour, being found to be a polypus of the size of a large pear, was at once removed with the écraseur as the best means of arresting the bleeding and saving the woman's life. The removal of the polypus was bloodless, and the bleeding did not again recur, but the patient sank, and died a week later. At the post-mortem examination the stalk of the polypus was found to be attached near the fundus of the uterus, and to contain three small fibromata of the size of peas, each of which might in succession have grown to a large polypus.

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Medical Times and Gazette.

SATURDAY, DECEMBER 16, 1871.

THE ILLNESS OF H.R.H. THE PRINCE OF WALES.

THE whole period since our last record of the Prince's condition has been one of very great and continued anxiety. We can hardly say, even, that there have been alternations of fear and hope; for the fear of what the next news might be has all along been the predominant feeling, and but very rarely has any gleam of hope lightened the gloom. The affection with which the Prince is personally regarded, the sympathy felt with the Royal Family, and the warm loyalty and love of the English for the Queen and the throne, have been shown to a degree and universality that will make the past week a memorable one in the national life and history. It is not at all an exaggeration to say that the lightning-rapidity of communication of the day has, as it were, made the British empire, for the time being, the ante-room of the Heir-Apparent's sick chamber; and as bulletin after bulletin has flashed along the wires, the pulse of the whole nation, and, indeed, of all English-speaking people, has throbbed in sympathy with the anxious and loving hearts at Sandringham; and certainly Medical men have been not the least anxious and deeply interested of her Majesty's subjects. Everywhere in their daily rounds—from patients, friends, and acquaintances—the first question has been, "What do you think of the Prince's state?" and very thankful have we all felt when we could point out any grounds of hope.

When we went to press last week we were happy to be able to take a decidedly hopeful view of the condition of the Prince of Wales. The fever appeared to be running a regular course without any complications, though the attack was evidently a severe one. The bulletin issued on the morning of the 7th stated that his Royal Highness had "passed a quiet night,"

and that "the decline of the symptoms continues regularly"; and that issued in the evening of the same day told us that the day had been a quiet one, and that there was "no material change in the symptoms." The general tenor of the official Medical reports, added to the facts that the Prince's strength continued good, and that he took nourishment freely, enabled us to feel warranted in saying at that time that the prognosis was decidedly favourable. At the same time we reminded our readers that his Royal Highness was far from being out of danger, and that that period of the fever, the beginning of the fourth week, was one during which the gravest complications might occur.

This warning was, alas! only too soon and too fully justified. The night of the 7th was a very unquiet one, and there was "a considerable increase in the febrile symptoms"; and in the afternoon of the 8th the bulletin spoke of the Prince's "precarious state," and stated that the febrile exacerbation had been "attended by great prostration of the strength." Throughout Friday, the 8th, the bulletins were of a character to excite the gravest anxiety and alarm, but on Saturday, the 9th, our apprehensions were somewhat relieved; the Prince was able to sleep at intervals, passed the day "quietly," and the mid-day report stated that the "febrile paroxysm" of the previous day was subsiding, and there was no increase of exhaustion. This improvement continued through Saturday night, and up to mid-day on Sunday, the 10th, at which hour the Medical report was that the general condition was "somewhat more satisfactory than yesterday"; but the same evening brought again unfavourable tidings, and the bulletins reported "a return of the more urgent symptoms," and of restlessness. On Monday, the 11th, the bulletin dated 8 a.m. caused still greater alarm, for we learned from it that the night had been "restless, with a further recurrence of the graver symptoms," and again the Physicians spoke of the Prince's state as "precarious." But, at the same time, the Medical world were not a little relieved by the assurance that the complication which had excited, and was still exciting, so much anxiety, was not abdominal, but pulmonary. From the necessarily guarded expressions of the bulletins, we had not been able to gather from what the dangerous condition arose, and, naturally, we dreaded intestinal hæmorrhage or perforation (the most frequent and most fatal complications of enteric fever), and in this fear we could hardly find a ray of hope. The pulmonary complications—bronchitis and pneumonia—are, indeed, full of danger, and very often are the immediate cause of death in enteric fever; but neither of them is so fatal as severe or recurring intestinal hæmorrhage, and of course still less deadly than perforation. When, therefore, we learned that no grave abdominal complication existed, we were able to take fresh courage, and to hope that the Prince's vigorous and unimpaired constitution would still enable him to "pull through." It must be said, however, that the character of the bulletins from Monday morning till the Wednesday night made it very difficult to continue to hope; they did not, indeed, say that there had been any recurrence of the attacks of pulmonary congestion and bronchial engorgement, but they spoke of constant restlessness, of continued prostration and exhaustion, and we ceased entirely to get the welcome tidings that "the pulse continues good." We have said that on Monday morning the Prince's condition was "precarious"; since then, the expression used in the bulletins has ever been, till to-day (the 14th), "The general condition continues unchanged," or "There is no abatement of the gravity of the symptoms." No words of ours are needed to point out the extreme peril indicated by such a state, continued into the fifth week of the fever. There appears to have been no marked remission of the grave symptoms from the morning of the 11th inst. up to the morning of the 14th; there are still, we must fear, abnormally high temperature, and bronchial irritation; and these, with restlessness, must be fearfully exhausting. On the other hand, we believe that the Prince continues able to take food and stimulants well, that he has intervals of consciousness and clear intellect, and that there are no new complications; and we know that he does still live, and that, in enteric fever, while there is life there is hope. And, above all, we learn that at last the long-continued obstinate restlessness has yielded. Late last night—we are writing on the 14th—we were gladdened by the report that the Prince had "passed a less unquiet evening"; and this morning the bulletin told of quiet sleep, and of some abatement of the gravity of the symptoms. We need not enlarge on the great value of this rest and sleep—

"Sleep, death's twin brother, knows not death;"

and, especially in such a case as the Prince's, sleep may, above all other helps, save from death. There is now stronger ground of hope. The latest bulletin reports that "the gain during the night is maintained"; and we know, from a source which, were we at liberty to name it, would command absolute confidence, that the Royal watchers at Sandringham are feeling "more hopeful." It would be a specially happy recollection should the commencement of the Prince's recovery date from the morning of the day on which, ten years ago, his father died from the disease against which he himself is still struggling.

We are very glad to be able to close with words of renewed hope; but no words are needed to remind our Medical brethren that the battle is still far from won.

We have at present no time, and not much inclination, to discuss the sanitary conditions of Londesborough Lodge, and the question whether it is fairly well or very badly drained. But as two of our Medical contemporaries have sent "sanitary commissioners" to examine and report on these matters—and their reports have excited not a little discussion—we must just refer to them. There can be no question that these commissioners conducted their inquiries in the utmost good faith, with perfect impartiality, and without any prejudices; but we must take leave to think that their reports will not much increase the public faith in Medical sanitary inquiries, and are not altogether creditable examples of scientific investigation. They have no doubt been very generally and carefully perused, with the replies to them. Both seemed to prove that the sanitary state of Londesborough Lodge was very bad indeed; and the wonder is, not that some of Lord Londesborough's guests contracted enteric fever, but rather that any inmate of his house escaped it! The *Lancet* commissioner especially pointed out that there were no ventilation-pipes to the sewers, and that sewer air must almost of necessity have entered the Prince's bedroom. But we are informed, in a report signed by Mr. Dale, of Scarborough, by the Medical Officer to the Local Board, the architects, the contractor, the clerk of works, and the plumber, that there were two ventilation-shafts to the drainage system, that the soil-pipe from the water-closet used by the Prince runs up to, and opens freely to the air on, the roof of the house, and that "all the drains inside that part of the house receiving water-closet soil-pipes are glazed sanitary tubes, that they are from four to nine inches in diameter, have a fall of one inch and a half to ten feet, and that there was no deposit or smell in the drains;" and these facts are confirmed by the sanitary commissioner of the *Lancet*, he having been "present at, and taking part in, the re-examination" of the Lodge. And, further, we are informed that, when reporting that there was no ventilation to the Prince's closet, "the *Lancet* commissioner has been misinformed by"—God save the mark!—"the plumber's man"! The *British Medical Journal* commissioner stated that there were two cesspools inside Londesborough Lodge, and that one of these was under the Prince's bedroom. Mr. Dale says there are no cesspools, and the report we have above quoted from affirms that "there is no cesspool of the kind described by the *British Medical Journal* commissioner inside the house, or anywhere about the premises! In reply to this, the commissioner says—"When I requested him (the contractor), on the strength of a letter I had received from Lord Londesborough, authorising my examination of the drains at Londesborough

Lodge, to open in my presence the cesspool which he described as existing beneath the Prince's bedroom, he declined to do so;" and the commissioner was satisfied. We fear the "plumber's man" will often be quoted against us when we speak against sanitary defects, and that it is too evident that the "commissioners," when conducting scientific investigations, took much too easily the evidence offered them.

We must all feel sincere sympathy with Lord Londesborough, —for what has happened, apparently, at his house may happen to any of us, seeing the sanitary ignorance and carelessness of architects and builders—but we hold that Lord Londesborough did all that man could do to protect his guests, and that he is entirely free from blame. At the same time, it is to be observed that the very fact that his Lordship thought it necessary to take all the precautions that he did take, seems to show that there was something suspicious about the drainage of his house. For, to say the least, it is not the custom for English gentlemen, when about to receive guests, to have all their sewers and drains inspected, and to retain a man to flush them during the stay of visitors. And, again, the facts—if they are facts—that Lord Chesterfield succeeded the Prince of Wales in occupying one particular suite of rooms, and that some other inmates of Londesborough Lodge have suffered from enteric fever, or diarrhœa, are very damnatory of the sanitary state of the house. We hope that Lord Londesborough may yet think it right to request that the Privy Council will order a strict inquiry into the whole matter.

THE PUBLIC SERVICES.

Everyone is aware of the long-established axiom of political economy, that the demand creates the supply; the truth of a corollary to the same, that as demand increases quality deteriorates, has also unfortunately been so frequently recognised, that even the most sanguine and confiding invividuals are compelled to acknowledge it. The Indian Government, however, in the management of its Medical Service appears to have entertained some doubts upon this subject, and, having for about three years discontinued its demand for Medical officers, is now about to re-establish the reciprocal currents of demand and supply, by throwing open in February next to public competition at least forty vacancies in its Medical Service. The supply, we have no doubt, will be fully equal to the demand so far as quantity is concerned; the quality, also, we are equally certain, will be in conformity with the usual law. The Naval Medical Service is likewise beating up for recruits in the advertising columns of the various papers, and it is, we believe, not unlikely that the Medical Service of the Army will also compete for a limited number of candidates in the Professional labour market.

This is a state of affairs which cannot be otherwise than exceedingly gratifying to a large number of students, particularly to those whose aspirations for employment in the public services have hitherto been baulked by the obstacles presented by really competitive examinations. During the next six or eight weeks the Professional "crammers," also, are likely to have a busy and profitable time; so that, if the interests of these two classes were the only objects to be held in view, there would be every reason for congratulations all round. Unfortunately, however, much more serious and extensive interests are involved; and it appears to us that the official advisers of the Indian Government in this matter should be called upon to explain their principles of action in the past, and their intentions as regards the future management of the Indian Medical Service. By closing the doors of admission to the Service for such a lengthened period, and now suddenly throwing them open to the influx of such a large number of candidates, they are about to deprive the Service, whose interests are in their charge, of all the advantages which might have been obtained by the admission of a limited number of candidates, through genuine competitive examinations at short but regular intervals.

This mismanagement on the part of the Indian authorities reflects also its injurious influences upon the Medical Services of the Army and Navy. And it becomes a question for consideration what may have been the exigencies which could have rendered either advisable or justifiable such manifestly injudicious vacillation on the part of the Indian Government. It would be well, we think, that the Directors-General of the Medical Departments of the Army and Navy should address to the War-office and Admiralty a vigorous remonstrance, with a view to prevailing upon the Indian Government, even at this late period, to reduce by one-half or one-third the number of places to be competed for in February. Failing in this, there should be no admissions to the Medical Services of the Army and Navy until such a date as may be necessary for the re-establishment of the normal rate of competition, which is now likely to be seriously disturbed by the large number of vacancies thrown open by the Indian Government.

It may be thought that a good deal will depend upon the examiners as to whether the candidates are to be submitted to really competitive tests. It is, however, we believe, the fact that even at the last examination for the Army Medical Service, where the number of candidates was nearly three times greater than the number of vacancies, only one was found not to have attained the minimum number of qualifying marks. It is evident, therefore, that when the number of vacancies at all approaches the number of candidates, the whole scheme of competition falls to the ground.

THE WEEK.

TOPICS OF THE DAY.

The conference which took place at the house of the Society of Arts on Tuesday last, under the auspices of the Council of the Charity Organisation Society, "On the best methods of Checking the Abuses now incidental to Out-patient Relief, with special reference to the expediency of extending the Provident Principle," is perhaps destined to mark an era in the history of our public Medical institutions. The attendance of Mr. Stansfeld, the President of the new Board of Control; his expression of sympathy with the views and purposes of the Charity Organisation Society; his pledge of sanitary legislation in the coming session, and the consideration which he promised he would give to the suggestion of Dr. Acland—"that it might be well in the organisation of the Hospitals and Infirmaries, whether belonging to unions, or parishes, or to towns, that provision should be made for the treatment in the same building and under the same management, not only of those who were professedly and acknowledgedly paupers, but also of the great mass of the community who could not afford in their own homes to secure the conveniences and accommodation which might be afforded to them in the Hospitals, even if they contributed somewhat to the support of those institutions"—afford evidence that if nothing which Mr. Gladstone and his colleagues deem of more importance than the health of the people intervene, we may at least expect that Parliament will be early called on to consider the questions involved in the Medical relief by Government and by voluntary charity of the poor. The fact is, that the present crying evils of the out-patient system, both to the sick poor (whom it demoralises and pauperises) and to the Profession of Medicine (whom it directly injures), are beginning to attract attention in non-Medical circles. We fully admit that the Profession of Medicine is not free from all blame in the development of the present system. There has been too much desire on the part of some of its younger members to render charity subservient to their own success, and, failing to obtain public appointments in recognised institutions, to start fresh ones, for the purpose of bringing themselves into notice. That great harm has been

done in this way we are compelled to confess. But we may hope that these illegitimate modes of attracting attention have had their day. They have been denounced by the general voice of the Profession and the public will soon learn to discountenance them. At the same time, the large Hospitals are not blameless in the matter. They have opened their out-patient rooms indiscriminately—as Mr. W. H. Smith said on Tuesday—to all comers. "No matter how many patients sought relief, no matter whether the sickness was severe or light, no matter whether the means of the applicants were large or small, they appealed to the Physician or Surgeon, and they were seen in turn." We thoroughly agree with Mr. Smith, that it is impossible to deny there are great evils mixed up with this work of "charity"; but the difficulty is, to introduce a reform which shall not interfere with the real work of Medical charity. That the system of Provident Dispensaries may help to reform the evils we think possible, provided that the Provident Dispensary be established on the broad principle of including all the legally qualified Practitioners of the town or district. Otherwise, the establishment of a Provident Dispensary is simply the establishment of a gross monopoly, ruinous to the Medical practice of the neighbourhood, and unfair alike to the Profession and to the working-classes. For this reason Medical Practitioners will, we are certain, oppose Dr. Acland's proposition of erecting a sanitarium, in connexion with a rate-supported Hospital and Dispensary, for patients who can contribute to their own support, unless it be clearly understood that such patients are at liberty to choose their own Medical attendant, who should be remunerated at a fixed rate. We believe that it is most desirable that the working- and lower middle-classes should be encouraged to combine to obtain Medical attendance at a stated and fair payment, instead of being pauperised by Free Hospitals and Dispensaries; but such combination must not be allowed to establish a monopoly of Medical practice, and thereby to bring ruin on the neighbouring Practitioners.

The Naval Medical Department has advertised a competitive examination of candidates for appointment as Assistant-Surgeons, to be held in the course of February next. Application for admission to the examination is to be made in writing, to the Director-General, at Somerset House.

The Council of the Geographical Society has asked Government aid to obtain the means of communicating with Dr. Livingstone. The Foreign Office has been applied to, and it is suggested that native messengers should be despatched by different routes to the country of Manyema, where Livingstone is supposed to be, or that a qualified European, with a party of natives, should be sent. The rewards of the natives are to be contingent on their bringing back letters from Livingstone.

On Wednesday, the 13th inst., a large number of the past and present students of St. Mary's Hospital met in the Board-room to present a piece of plate to Dr. Sibson, and a handsome timepiece to Mr. Lane, on their retirement from the respective offices of Physician and Surgeon, after twenty years of valuable service in the School and Hospital. The presentation was made on behalf of the students by Mr. Gascoyen, whose observations, together with the replies of Dr. Sibson and Mr. Lane, were received with warm demonstrations from the large number of students the occasion had brought together. Mr. Lane's earlier reputation was connected with that School of Anatomy in Grosvenor-place which was the lineal descendant of the Windmill-street School, rendered illustrious by the Hunters.

UNPROFESSIONAL CONDUCT.

The Council of the Royal College of Surgeons having had attention drawn to a most extraordinary pamphlet from George Washington Evans, of Reading, a Member of the College, which for some considerable time past he has been circulating largely in this metropolis and the provinces, and to which attention has been drawn several times in the *Medical Times and Gazette*, it was resolved to appoint a committee to investigate and confer with the solicitor on the subject. This having been done, Sir James Paget, Bart., as chairman, submitted the following report to the Council, on Thursday last, the 14th inst., viz.:—

"Your Committee—appointed on the 8th of June last, to consider and report to the Council upon the letter of the 4th of May last from Mr. J. P. Wilton, Honorary Secretary to the Gloucestershire Medical and Surgical Association, and the previous correspondence in relation to the pamphlets issued by Mr. George Washington Evans, of Reading, a Member of the College—have taken the subject into consideration at two meetings, viz., on the 5th of July last and on this date, and have agreed to the following report, viz.:—'That, in the opinion of your Committee, the pamphlets issued by Mr. George Washington Evans are, in the words of Clause 2, Section xvii. of the By-laws, 'prejudicial to the interest' and 'derogatory to the honour of the College,' and 'disgraceful to the Profession of Surgery.' And that your Committee accordingly recommend that notice should be given to Mr. Evans that such is the opinion of the Council; and that if there be any further distribution of these or similar pamphlets, the Council will proceed to deal with him under Section xvii. of the By-laws. "James Paget, Chairman.

"November 20, 1871."

Whereupon the Council resolved that the Secretary be directed to furnish Mr. Willan with a copy of the proceedings and to communicate with Mr. Evans on the subject. It is to be hoped that the Council will at once proceed against him, if it should be proved that he disregards this important By-law, viz.:—

"2. No Fellow or Member of the College shall advertise or publish any matter or thing prejudicial to the interest or derogatory to the honour of the College, or disgraceful to the Profession of Surgery; and any Fellow or Member, who may in any manner offend herein, shall be liable to removal, by resolution of the Council, from being a Fellow and Member or a Member of the College."

DR. PHILIP FRANK.

Among our list of marriages this week, there is one which we should not have felt it right to notice in more than the ordinary manner, if it had not been publicly alluded to as follows in the *Times* of Wednesday:—

"Our columns yesterday recorded the marriage of Lady Agnes Campbell, widow of Sir Archibald Campbell, of Succoth, and daughter of the late and sister of the present Lord Westminster, to Dr. Philip Frank, late of the Army Medical Staff, a gentleman who was employed last year in the service of the National Red-Cross Society for the Aid of the Sick and Wounded, of the Ladies' Committee of which Lady Agnes, it will be remembered, was one of the most active members. Of the daughters of the late Marquis of Westminster, the eldest, Lady Eleanor, is Dowager Duchess of Northumberland; the second, Lady Mary Frances, is Countess of Macclesfield; the third, Lady Elizabeth, is the wife of Lord Wenlock; the fourth, Lady Caroline Amelia, is the wife of Lord Leigh; the fifth, Lady Octavia, is married to Sir Michael Shaw Stewart; another, Lady Jane Louisa Octavia, is the widow of the fourth Lord Muncaster; and one, Lady Theodora, is still unmarried. Dr. Frank, we hear, is in practice as a Physician at Cannes, in the south of France.

Dr. Frank is so well known to all the leading members of our Profession that we have little to add to the above announcement. But it will be a source of general satisfaction, and another proof of the recent rapid advance of Medicine in social standing, if we add that it is generally understood that this marriage between a Physician and a member of a very wealthy and powerful aristocratic family, has been received by that family with warm and general approval.

THE LOCAL TREATMENT OF OPEN CANCERS.

A correspondent asks if any of our readers have tried the plan of treating open cancers with alcohol or a mixture of alcohol

and chloroform, as recommended some years ago by Professor Beneke, of Marburg. This Physician stated that he had discovered a large quantity of myelin in cancers, and that the peculiar offensive smell of suppurating cancerous sores is partly owing, at any rate, to the decomposition of this substance. It struck him, therefore, that as myelin is easily soluble in spirit containing 80 to 85 per cent. of alcohol, the soaking the sore with spirit might be useful. On trial, this proved to be the case, both as regards cancerous ulceration of the tongue and of the breast. The addition of chloroform to the alcohol (one-third chloroform, two-thirds spirit) was found to be also useful in relieving pain. Our correspondent would be glad to know if anyone in England has tried this treatment, and with what result. He also mentions that, in a recent private communication from Professor Beneke, a vegetable diet, with little nitrogen, is recommended in cancers, on the ground that cholesterine and the nitrogenous cholin, which form a constituent part of the lecithin which occurs in cancers, are chiefly derived from nitrogenous food. Professor Beneke describes a case in which a patient lived well on an exclusively vegetable food. The vegetable food must not, of course, include much pea or bean, or lentils, as these are rich in nitrogen. If any similar observations have been made, our correspondent would be obliged if they could be communicated to the *Medical Times and Gazette*.

THE SOLLY TESTIMONIAL.

A SUM approaching £100 has been received towards this fund, which is to be applied to the establishment at St. Thomas's Hospital of an annual prize or scholarship, bearing the late Mr. Solly's name. The prize is to be awarded for the best reports of Surgical cases, preference being given to those accompanied by drawings. It is well known that Mr. Solly attached great importance to this method of illustration.

THE HAMPSTEAD HOSPITAL INQUIRY.

GREAT dissatisfaction has been expressed at the "delay" of the Commissioners in issuing their report with respect to the above inquiry. We think the dissatisfaction has been without reasonable cause, and that the Commissioners were justified in not arriving at a hasty conclusion. We understand, however, that the report has been forwarded to the Local Board, and that it will be transmitted to the managers of the Hospital without delay.

A GOOD EXAMPLE.

No greater boon could be conferred on workers in dangerous trades than some discovery for the prevention of mischief arising from their calling. Our neighbours across the Channel, through the Société d'Encouragement of Paris, have offered a prize for an invention to protect the cutters of millstones from the dust produced in the process, which causes such distressing diseases of the lungs. M. Catilliers and a Commission have been making a series of experiments on the effects of ventilation, and the most satisfactory results have been obtained. By means of a fire and a tall chimney a current of air is produced in the dressing-shop, having a rate of ten feet per second, from the men, and it is found that by this simple method all the dust is removed. There are many trades in this country to which a preventive of a like kind would be a great boon.

JEWISH MEDICINE.

WE have observed in a religious contemporary devoted to the conversion of the Jewish race (the *Scattered Nation*), some papers by one of our fraternity, Mr. Gaskoin, on "Medicine as Practised by the Jews." The September number contains an article under the heading "The Foundation of the University of Cordova," which has an original stamp, and which sets things in a new and as yet unconsidered light. We hope to see these papers continued. From the December number of the same publication, we are fain to borrow a few "Talmudic Gleanings." These passages are of an extremely biting character, and serve to show the priestly race of yore in strong antagonism to our art:—

"*Talmudic Gleanings.*

"14. A Doctor that heals for nothing, his cure is worth nothing.—*Bava Kama*, fol. 85, i.

"15. Most donkey drivers are wicked, most camel drivers are worthy, most sailors are pious, but the best of Doctors are for hell.—*Kidushin*, fol. 82, i.—*Note.*—A Doctor, says a certain writer, has the advantage over the Angel of Death. The latter kills gratis, but the former is paid for it.

"16. Seven have no portion in the world to come—the legal writer, the scribe, the best of Doctors, etc.—*Avoth. Drb. Nathan*, c. 36.

"17. When a patient says, I am in need of (certain food), and the Doctor says he is not in need of it, the patient is rather to be listened to; for (Prov. xiv., 10) the heart knoweth its own bitterness.—*Yoma*, fol. 83, c. 1.

"18. If there be no Israelitish Doctor in a city, but there are in it a Samaritan Doctor and a Gentile Doctor, the latter may circumcise (a Jewish child), but not the former.—*Avodah Zarah*, fol. 26, c. 2.

"19. Physician, heal thy lameness.—Fol. 23, c. 2."

ASSUMPTION OF A MEDICAL TITLE.

A CASE of considerable importance came before the Shrewsbury County Court on Monday last. It was the case of a person of the name of Thomas Andrews, against Mr. F. H. Davies, for £4 13s. 6d. This is a copy of the bill delivered—

"Shrewsbury, November, 1871.

"Mr. Frank Harry Davies—

"To Thomas Andrews, M.D.

"To Professional attendance, medicine, etc. .. £4 13s. 6d."

It appeared in evidence that the plaintiff had been in business as a chemist and druggist for some time; he had obtained a diploma lately, but the debt was contracted before he obtained the diploma. He had in his bill only charged as a chemist and druggist. On cross-examination, he said the diploma was an American one—in fact, he had two diplomas; but he did not produce either. A long contest ensued between the lawyers as to the diploma—the advocate for the defendant insisting he had a right to know where the alleged diploma was obtained; the lawyer for the plaintiff contending that, as his client sued only as a chemist and druggist, therefore it was not necessary to produce the diplomas, or answer questions as to whence they came. Eventually the judge allowed the plaintiff to withdraw the case on the payment of costs, observing, that as the plaintiff had admitted he was not a Medical Practitioner, there was an end of the case. But surely the case is too clearly an infringement of the 40th clause of the Medical Act to be allowed to rest where it is. There is *primâ facie* evidence of the Act being infringed.

HAMPSTEAD-HEATH.

WE are very glad to see the powerful influence of the *Times* is being brought to bear upon the Metropolitan Board of Works, to encourage the Board so to improve Hampstead-heath that it may become a real place of "recreation" for the public. Mr. Le Breton, Chairman of the Open Spaces Committee of the Board, recently showed that he understands the real meaning of the term *recreation*—the renewal, restoration, or *recreation* of the force used up in the daily toil of city life; and he has now the power of showing whether he has the will and the ability to give practical effect to his knowledge. Parliament has made the Board of Works the steward of the public, for whom Hampstead-heath has been secured for ever. The Board has great powers, but, since the passing of the Act last June, it has literally done nothing, though directed by the Act to prepare and preserve the Heath "for the purposes of health and of unrestricted exercise and recreation." The Boardhave only six months left, if they intend to comply with the Act, to level, drain plant, and improve the Heath; and they have not shown yet what

are their ideas of exercise and recreation. There are ponds which might be converted into swimming-schools and bathing-places; open spaces which a little draining and levelling would make into excellent grounds for cricket, bowls, or football; courts for tennis and fives could easily be planned, open-air gymnasia erected, good roads made for carriages, rides for horsemen, and walks for pedestrians, while all the existing depredations and nuisances ought to be stopped, and ornamental planting carried out in a manner which shall not injure the natural aspect of the Heath. The *Times* suggests that the Board should offer three prizes for the best plans by which these objects might be attained, and we cordially support this suggestion. It would be certain, at a small expenditure, to bring a number of valuable hints before the Board, who might adopt or reject exactly what they please from any plan; and it might be the means of bringing forward some able man now kept in obscurity for want of the opportunity of distinguishing himself by good work. The principle of open competition for national works is one which ought to generally encouraged.

HEALTH OF SALFORD.

The Salford Board of Guardians do not appear to have a strong notion that they have any sanitary duties to care for. At a meeting held on the 7th, Dr. Syson, the Medical Officer of Health, wrote thus to the Clerk of the Guardians:—

"Before the small-pox epidemic visited Salford, I took the liberty of writing to your board, warning them of its certain approach, and suggesting the immediate vaccination of our unvaccinated population. My letter you did not think required any notice at your hands, but nevertheless the small-pox came. May I now again call your attention to the large number of unvaccinated in Salford, and also to the fact that, although small-pox has been, and still is, so rife, there is an utter absence of placards—save a few old and worn ones—calling on the people to protect themselves by vaccination and revaccination. As I said in my previous letter, I am strongly averse to prosecutions except as a very last resort, but I think suasion properly applied would insure at least 90 per cent. of vaccination. I thank you, on behalf of my committee and myself, for your prompt information as to all fever and small-pox cases."

After some discussion, the Guardians came to the conclusion that they had done all they could do, and thus the matter dropped.

SMALL-POX JOTTINGS.

Small-pox has broken out at Wold.——Dr. Lankester reports that there had been more cases of small-pox in St. James's, Westminster, the last fortnight than the preceding one.——Small-pox is very prevalent, and increasing in severity, at Leeds. The sheds on the workhouse estate are, in consequence, to be used as a Small-pox Hospital.——The disease, after having for several weeks caused scarcely any deaths in Camberwell, has within the last three weeks broken out afresh in some parts of the parish, more especially in the neighbourhood of Beckett-street and Nelson-street, and has caused there a comparatively heavy mortality.——At Kensington, during the last month, there was one fresh case, but no deaths from small-pox; 137 persons had, during the same time, been successfully vaccinated in the parish.——At Marylebone, the disease is still prevalent; and, independently of the large number of cases sent to the Small-pox Hospital, no less than eight deaths have occurred in the parish in the last four weeks, being an increase of four above the number of the previous month.——At St. George's-in-the-East, there were last week six fresh cases reported.——Small-pox is prevailing in part of New Brompton, and, in consequence, an order has been issued that the men, women, and children at the School of Military Engineering at Chatham are to be vaccinated. These precautionary measures are taken on account of a large number of the married men of the Royal Engineer Corps living out of barracks in New Brompton.——104 deaths occurred in London last week from small-pox, showing another further decided increase.——The Homerton Small-pox Hospital is now full, as regards male patients.——Small-pox is spreading in New York, and in the opinion of Dr. Morris, the City Sanitary Inspector, is likely to become epidemic.

SMALL-POX IN DUBLIN.

The epidemic is still increasing in extent and frequency. The number of patients suffering from the disease in the Dublin Hospitals in the week ending November 25, was 170, of which number sixty-one had been admitted during that week Numerous cases, too, have occurred in private practice, and in the fortnight ending December 2 thirty deaths from variola were registered. All the beds set apart for the reception of small-pox cases in the Cork-street and Hardwicke Fever Hospitals are now occupied, while the sheds provided by the Guardians of the North and South Dublin Unions are largely filled.

PATHOLOGICAL SOCIETY OF DUBLIN.

An adjourned meeting of this Society was held on the 9th inst. in the Anatomical Lecture-room of the School of Physic, Trinity College, the chair being taken by Sir Dominic Corrigan, Bart., M.P. The objects of the meeting were (1) to consider certain notices of motion by Dr. Barton, and (2) to proceed with the election of officers for the present session. The notices of motion—three in number—had reference to the mode of conducting the annual election of officers; to a proposed introduction of discussion at the Society's meetings; and to an alteration of the time and place of meeting, together with the exclusion of students. The last two proposals, in which was contemplated the introduction of radical changes in the method of working the Society, were negatived; but it was agreed to alter the mode of election to office. The members subsequently elected the following officers for 1871-72:—*President:* Joliffe Tufnell. *Vice-Presidents:* Thomas Beatty, Samuel Gordon, Edward Hamilton, Henry Kennedy, John T. Banks, and John Denham. *Council:* Robert Adams, Sir Dominic J. Corrigan, John Hamilton, Thomas Hayden, James S. Hughes, George Kidd, Robert Law, Benjamin G. M'Dowel, Robert M'Donnell, William Moore, George H. Porter, and James H. Wharton. *Honorary Secretary:* William Stokes. *Secretary and Treasurer:* Robert W. Smith. *Secretary for Foreign Correspondence:* Robert D. Lyons. Sir Dominic Corrigan having then vacated the chair, it was taken by the incoming President. A vote of thanks to Sir Dominic Corrigan was unanimously carried, and the Society adjourned.

SURGICAL SOCIETY OF IRELAND.

The opening meeting of the present session took place on the evening of Friday, the 8th inst., in the Albert Hall of the Royal College of Surgeons. The attendance of members and visitors was very large. Dr. James H. Wharton, the incoming President, occupied the chair, and delivered an inaugural address. He sketched the progress of the Society, and pointed out such subjects as still afforded opportunity for advancement in Surgical science. Mr. Croly afterwards presented a number of interesting specimens, including two polypi of the rectum, a large-sized chronic mammary tumour, and a section of a diseased tibia. Mr. Joliffe Tufnell read an account of a successful case of radical cure of scrotal hernia, effected according to Mr. Syme's modification of Wurtzer's operation. A prolonged discussion ensued, after which some patients on whom Mr. Croly had performed tenotomy were presented to the notice of the members.

PROFESSOR HUXLEY AT THE LONDON INSTITUTION.

Professor Huxley, on Monday, the 11th inst., commenced his sixth lecture by a reference to the observations with which he had closed his previous lecture, on the difficulty of defining the relation between neuroses and the higher mental phenomena. It is, in fact, unknown. But in the lower class of

psychoses, such as the sensations, it is possible, in some measure, to trace the connexion between the physical agency through which the initiatory step is effected and the mental result. Taking as an instance the pain produced by a prick with a pin, there is first a physical lesion or condition, arising from the contact of the sharp instrument with the nerve-fibres distributed throughout the papillæ of the true skin; there is next the neurosis conveyed along the nerve-fibres to the central organ; then the psychosis, by which the pain is referred to the seat of the lesion; and, finally, the origin of the pain is referred to an external cause. In illustration of this part of his subject, Professor Huxley exhibited a diagram of a section of the skin, showing the epidermis, composed of horn-cells, quite devoid of sensation, the underlying *derma* or true skin, projecting in papillæ into the epidermis, containing blood-vessels, fat in meshes, sweat-glands and ducts, and nerves. The termination of the nerve filaments in the papillæ is not yet completely understood, but so far as present knowledge goes no special termination has been discovered; it is supposed that they are confined to the papillæ of the derma, and that mere contact with them is sufficient to produce a neurosis, no special arrangement of their terminating points being necessary. Going again over old ground, Professor Huxley impressed upon his audience that the actual seat of the pain is not in the point at which an injury is inflicted; that if the afferent nerves from the part be cut across, any amount of injury may be inflicted without the sensation of pain being produced; also that the central nervous organ must be intact and active. It is only necessary to refer to one's self-consciousness to satisfy oneself that pain apart from oneself has no existence—that it is a sensation *in* oneself. Hence the foundation of a convenient terminology, by which affections of oneself are designated *subjective phenomena*, as distinguished from things outside oneself, which are known as *objective phenomena*. There is in reality no connexion or parity between the physical agent which inflicts an injury and the sensation resulting therefrom—between, for instance, the point of a pin and the pain experienced on the skin being punctured with it. As to the actual seat of the pain, consciousness gives erroneous information. The pain is *not* in the finger pricked with a pin, but is in the brain, and by an act of primary mental activity is referred to the part touched. This is an important point, as it establishes the fallacy of the common notion that our sensations are taken in passively from without, or, according to the ancient idea, "as copies of external things." There is nothing passive in our sensations. The localisation of sensations has been explained as the result of experience; but, to convince his hearers that this is improbable, he had only to remind them of the experiment which he had exhibited to them of touching with acetic acid the skin of one of the legs of a frog, separated from the body, but still connected with the lower part of the spinal cord. They would remember the distinct rubbing motion with which the other leg was applied, as if with the purpose of removing the cause of irritation. It is therefore evident that in the physical organisation of the nervous system there is something independent of cerebral action, capable by some automatic action of defining the locality of tactile sensations. The reference of the origin of pain to an external cause affecting a particular part is indubitably due to the association of ideas; but strictly *subjective* pain sometimes so strongly resembles that produced by an external cause, that it cannot be distinguished from it. It is well known, for instance, that after amputation of a limb irritation of the nerves of the stump frequently produces pain, which is referred by the patient to the fingers or toes formerly supplied by the terminating filaments of the irritated nerve.

Proceeding to another slightly more complex instance of cutaneous sensation, Professor Huxley suggested the supposition of a smooth, round body at a high temperature being brought near the skin at any particular point without actually touching it. A diffused sense of warmth is then referred to that part. But there is a difference in this case from that in which the skin is punctured by a pin—the terminating nerve-filaments are untouched. Again, if the little and ring fingers be held for some time in ice-cold water, numbness will be felt in them from the cooling down of the nerve-filaments distributed to them; but if the elbow only be immersed in the cold water, although numbness—at last actual pain—may be felt in the skin covering the elbow (near which the trunk of the nerve supplying the little and ring fingers lies very superficial, and is, therefore, much cooled down by the water), no similar sensations will be experienced in the little and ring fingers. It appears, then, that reduction of temperature does not produce the same effects when acting on the trunk of a nerve as when applied to its terminal filaments. It is, therefore, concluded that an intermediate apparatus between the nerve-filaments and the epidermis is necessary for our appreciation of the varying sensations of heat and cold. It is also well known that, if the epidermis be destroyed or removed, as by the action of a blister, the tactile sense is lost, while the sense of pain remains. It has hence been inferred that there may be an extension of nervous filaments in the papillæ of the skin, towards the epidermis. This has even been described as existing in the form of "tactile corpuscles," the existence of which, however, has not yet been satisfactorily demonstrated, and may be considered dubious. Consequently, Professor Huxley did not deem it necessary to dwell upon recent speculations on the subject.

Reverting to the consideration of the terms "heat and cold," in the use of which, as applied to our sensations, there exists in many minds a confusion of ideas, Professor Huxley pointed out that, outside ourselves, the qualities signified by them have no existence; that the heat which we feel on approaching a fire is not in the fire, but in ourselves. So likewise other qualities of external objects, such as the hardness and roughness of a piece of chalk, are *subjective* phenomena, or activities awakened in ourselves by external causes. The apparent paradox of there being nothing whatever in the external world answering to the *subjective* psychoses of heat, hardness, roughness, etc., which we experience on contact with external objects, is nevertheless nothing more than the truth. The relation between our psychoses and the external world is similar to that between a person playing on a piano and the sound produced. There is no parity or similarity between an overture or symphony and the person playing. A person seeing a piano for the first time, and minutely examining its internal mechanism during a performance, while the performer was concealed from view, could never form any idea, or draw a sketch of the originator of the sounds. Thus the sensational philosophy, which traces all our states of mind to sensations passively received from external objects, if logically carried out to its conclusion leads to idealism.

The next primary psychosis is the sense of *Taste*, which Professor Huxley said he had in some unaccountable way omitted from the list of primary psychoses given in the previous lecture. The analogy between this and the tactile sense is very close. The nervous and vascular structures in the papillæ of the tongue were illustrated by diagrams. Sapid bodies are all more or less soluble in water; so that the dissolved material soaks through the epithelium to the papillæ of the tongue, and the series of neuroses and psychoses is set into action, as in the sense of touch. There is at present no actual knowledge as to the existence of any intermediary apparatus between the terminating nerve-fibres in the papillæ and the epithelium of the tongue; but it probably exists. As in the phenomena of the tactile sense, so in the gustatory—*tastes* do not exist in the substances tasted, but are *subjective* psychoses.

In illustration of the sense of *Smell*, large-sized diagrams were employed, shewing lateral and transverse sections of the internal cavities of the nose, the arrangement and relative

positions of the turbinated bones, the peculiar mode of exit of the olfactory nerve by several filaments through the perforated plate of the ethmoid bone, and its distribution over only the superior nasal cavities and the upper and middle turbinated bones. Professor Huxley also demonstrated by chalk drawings on the black-board the modification in structure of the epithelial mucous membrane investing the superior nasal or olfactory fossæ, showing that between its cylindrical cells are peculiar spindle-shaped prolongations of the fibres of the olfactory nerve, presenting minute bulbous enlargements on their surface. In these prolongations of the olfactory nerve, an intermediary nervous apparatus is more easily recognisable than in the papillæ of the skin and tongue. The extreme tenuity of the particles of matter, contact of which with the sensitive extremities of the olfactory nerve produces the sense of smell, is amazing—a piece of musk, for instance, will retain its odorous properties for years, without the slightest appreciable loss of weight. For the production of the sense of smell it is necessary that a current of air should be drawn upwards into the proper olfactory fossæ. The sensation is referred by most persons, Professor Huxley is inclined to think, not to the exact spot in the internal structures of the nose at which the minute particles come into contact with the sensitive mucous membrane, but rather to the root of the nose; and this, he thinks it likely, is attributable to the influence of the current of cold air on the nerves of ordinary tactile sensation extending to the proper olfactory region.

Before the lecture it was announced that, in order to terminate the course on the date fixed, Professor Huxley would, on Friday, the 15 inst., at 4 p.m., deliver the lecture which—had he not been compelled by illness to omit a lecture during the preceding week—should have been delivered on that day, instead of that of which we have given the above notes.

MEDICAL SPIRITUALISM IN AUSTRALIA.

Spirit-rapping and table-turning appear to be rampant in Melbourne. Many of the better classes are disciples; but the most singular phase of the delusion is that which appertains to certain members of our Profession who have become converts to the new doctrine. These gentlemen associate with themselves in practice some of the most eminent Professors of the healing art in ancient and modern times, from Æsculapius down to Sir Astley Cooper, whom they spiritually consult.

FROM ABROAD.—PROFESSOR BILLROTH ON OVARIOTOMY—M. FAUVEL ON THE PROGRESS OF THE CHOLERA IN 1871-72—M. REVERDIN ON SKIN-TRANSPLANTATION.

In his "Surgical Reminiscences," now publishing in the *Wiener Med. Wochenschrift*, Professor Billroth thus speaks of ovariotomy:—

"I recently received a visit from one of my former assistants, who had just returned from England, and he informed me that he had been present at the performance of his 427th ovariotomy by Spencer Wells. Truly, we Surgeons of the Continent cannot deal with proportions like these when appealing to our experiences in order to decide upon this or that mode of procedure; and just as Paris, Berlin, or Vienna are mere small towns compared with London, so the total number of ovariotomies performed on the Continent is trifling when we consider the frequency of this operation in Great Britain. And yet we should relate our cases also, and especially for the sake of the unfortunate women who are the subjects of ovarian tumours, and who, remaining unoperated upon, or only submitted to tapping, almost all die in the course of a few years; for most of these might be saved by operation, and enjoy a long life afterwards—and the more so, inasmuch as these ovarian tumours are seldom combined with other diseases, and most of these women, with the exception of the ovarian affection, are in good health.

"First of all, Surgeons must dismiss from their minds that ovariotomy is a dangerous operation; and, through the medium of well-informed Practitioners, this conviction must make its way with the public. After ovariotomy skilfully performed according to the rules of art, recovery is the general rule, and a fatal issue the constantly diminishing exception. Comparing it with some other operations, ovariotomy, taking the mass of cases, is shown by statistics to be less dangerous than amputation of the thigh, disarticulation of the shoulder and hip-joints, or excision of the hip or knee. Its danger is about the same as that of amputation of the arm, excision of the shoulder, partial excision of the jaw, lithotomy in the young, and similar operations. We must, however, perform ovariotomy strictly according to the rules laid down by the English operators in their classical works; and only after having attained the same results should we venture to practically put into force our own ideas, in order to improve upon these. I had the good fortune to see Spencer Wells operate upon two complicated cases, and from them, as well as from oral communication with this remarkable man, I learned much. I constantly follow his precepts, knowing that he has long since thoroughly thought out and tested all that can happen to myself. I shall willingly regard myself during my lifetime as his scholar; and contented shall I be if it falls to my lot, by means of this operation, to snatch from certain death one-half the number of lives he has been enabled to save.

"Up to the present time I am tolerably contented with my results. I give here a short account of them, in order to encourage the performance of these operations, and especially to inform the colleagues into whose hands these lines may fall that I have, personally, no reason for supposing that the results attendant upon ovariotomy will be less cheering in Vienna than they are in London. Hitherto I have performed it nine times; and of these patients only two have died, giving, therefore, only a mortality of 22·2 per cent. The first four cases recovered one after another; then two fatal cases occurred, to be followed again by three recoveries. The first case is related in my Zurich 'Chirurgische Klinik,' and the second, third, and fourth cases in the 'Chirurgische Klinik' published at Vienna in 1868; of the remaining five cases the narration is now given."

M. Fauvel, in a communication to the Académie de Médecine, December 5, terminates an interesting account of the progress of cholera during the present year with the following *résumé*:—

"The cholera, then, the invading progress of which towards the North-east of Europe has for the time been suspended, still prevails with some intensity at Constantinople, menacing thence all the basin of the Mediterranean, which to the present time has remained intact. On the other side, the disease, advancing through Arabia to the holy places of Islamism, threatens the invasion of Egypt, and consequently the shores of the Mediterranean, as in 1865. This is the present position of Europe with regard to the cholera; and it follows that, if we have some chance of escaping a scourge which presses on us on several sides, there is also a strong probability that we shall be subjected to its invasion. This the year 1872 will decide.

"There is, however, some compensation in this perspective. If we cast a comprehensive glance on the invasion of the cholera in 1871, we perceive, without any doubt, that at no epoch has the disease prevailed over so vast a space; for we find it prevailing with varying intensity along an undulating line, which is scarcely interrupted, from Archangel to the southern extremity of Africa. But, then, in compensation, never has an epidemic of cholera shown itself so benign in Europe as that of 1871. It is not that the malignity of the disease has diminished, for the gravity of the attacks has continued the same; but, with certain exceptions, their number has been much more limited than usual. In other words, individual resistance opposed to the action of the morbific principle has been more extended than in former epidemics. The progression towards Western Europe has also been less active, and—a fact to be noted—it would seem that, wherever the means of disinfection have been employed with energy and intelligence, they have greatly contributed to the extinction of epidemic foci, and, consequently, to attenuate their effects. The conclusion to be drawn from this last fact is, that if the cholera should unfortunately visit our country, it ought to find us prepared beforehand to oppose it with those prophylactic measures which experience has proved to be of service."

At the meeting of the Académie des Sciences, November 27, M. Reverdin presented an additional communication on

greffe épidermique, or skin-transplantation. He observes that since his first paper was read (in December, 1869) he has repeated the experiments on a great number of wounds, and the procedure, susceptible as it is of various practical applications, has been adopted by many Surgeons, both in France and abroad. Latterly, in experiments upon animals, he has been investigating the histological process which is set up, and the results thus attained form the subject of the present communication.

"It is to be observed, in the first place, that these flaps comprise not only the epidermis, but also a more or less thick stratum of the dermis, and that it is well-nigh impossible in practice that it should be otherwise. Our experiments demonstrate that these flaps may be derived either from different individuals of the same species or from individuals of different species. In white men we have succeeded in grafting flaps procured from other white men, from negroes, and from rabbits; and on the rabbit we have grafted with success flaps obtained from the rabbit, from man, and the cat; while on the sheep we have grafted from man.

"When a graft succeeds, it becomes adherent at the end of twenty-four hours, being then swollen and wrinkled. Towards the third day a smooth red circle begins to form around it, the graft sinking below the level of the granulations. Next day this circle has become of a pearly grey, which gradually becomes white; the red areola advances, and so it goes on exactly as in the marginal cicatrix. The islets so constituted are tolerably circular when the graft is placed at a distance from the edge of the wound. If it be near this, or if two grafts are near each other, the development of the epidermis takes place more rapidly on the side on which the two cicatrices approach each other, the islets become elongated, the marginal cicatrix sending out a prolongation; and at a given moment there are formed at these points cicatricial points, which are sometimes very long and very narrow. When the grafts have been derived from a pigmented skin, as in the negro and black cat, we have found that the flap becomes gradually decolorised until it is quite white. The islets formed around do not present any particular coloration.

"As to the microscopical examination, it proves—1. That the adhesion of the grafts is first produced through the epidermis, and only secondarily by the dermis. 2. That the epidermis operates by contact action (the catabiotic action of Gubler) in determining the transformation of the contiguous embryonic surfaces into epidermis."

POOR-RELIEF IN SAXONY.

No. I.

The President of the Local Government Board has just received from Mr. Andrew Doyle, Poor-law Inspector, an interesting Report upon the Poor-law System of Elberfeld. Mr. Doyle recently visited that town, and, in conjunction with Mr. Crowe, H.M. Consul-General in Saxony, instituted a very minute investigation into poor-relief, including in his inquiry, for the purposes of comparison, the towns of Barmen, Crefeld, Düsseldorf, and Aix-la-Chapelle. It appears that in 1852—the year before the present system was adopted—the total number of persons relieved in Elberfeld, out of a population of 50,364, was 4000, or just 8 per cent., at a cost of £7072 7s. In 1853-4 the system under consideration was established. With an increase of population to 52,590 in 1857, the number of paupers had decreased from 4000 to 1528, or from 8 per cent. to 2·9 per cent., whilst the expenditure was reduced from £7072 7s. to £2623. Such figures as these make the mouth of a British ratepayer water, and prompt the inquiry, "How is it done?" and "Is what is possible in Elberfeld not possible in England?"

The change was effected in this wise. In 1850 the town was divided into but sixty districts; the number of visitors—one for each district—proved much too few; the duties were neglected; the pauperism and expenditure increased; and the complete demoralisation of the pauper population caused much uneasiness. So far the parallel seems to run very closely with our own condition at the present—so far as regards, at least, the inadequate number of visitors and the demoralisation of the pauper population. Much uneasiness naturally resulted, and the Municipality determined to effect a complete revision. Then the matter was taken up by Daniel von der Heydt, a distinguished banker and citizen, who appears to have thought out the existing system, and to have succeeded by his personal influence in securing its efficiency. Under the *Armen Ordnung*, or Poor-law, suggested by Von der Heydt, the administration devolves primarily upon the *Armenverwaltung*, consisting of a president, four members of the Municipal Council, and four citizens. Subordinate to this body are the *Armenpfleger*, or visitors, and the *Armenvorsteher*, or overseers—each class being *unpaid*, and compelled to serve. The selections of persons to fill these offices are made in the most liberal spirit, and, to quote the words of the Report, "without reference to politics or religion, or to any consideration save fitness for the office. The 'oath of office' is simply a *handschlag*, or grasp of the hand, which is possibly found to be not less binding than the more solemn form of obligation so often exacted from English officials." Each visitor (and there are 252) has under his charge a section of the town, and fourteen sections are under the charge of an overseer. The visitors meet once a fortnight, under the presidency of the overseer, and submit for confirmation their grants of relief and reports of application. Each application for relief must be made to the visitor of the section, and forms the subject of most searching investigation. If the visitor is satisfied that there are just grounds, he is authorised to give relief at once, but subject to such restrictions as to obviate as far as possible the risk of abuse or imposture. The general rules within which the administration of relief is restricted are the following:—

"1. Every person who is destitute and unable to procure work shall, upon application by himself, or by another on his behalf, be relieved from the town funds, except when other persons bound by law to relieve him(a) possess the means of doing so, or except when he is in receipt of relief from private charity.

"2. Any able-bodied person, being destitute and unrelieved by private charity, may, by applying personally or through friends for relief, and upon proof that he has tried unsuccessfully to obtain work, be entitled to receive temporary relief until such time as he can earn a sufficient livelihood, he being bound, in the meantime, to perform such work as may be assigned to him.

"3. Single persons and heads of families whose income suffices to procure for themselves the absolute necessaries (*das unabweislich Nothwendige*) of life are not to be considered as destitute—that is, entitled to relief from the public funds. The weekly sum to be considered sufficient for procuring the absolute necessaries of life in respect of food, clothing, lodging, furniture, and education is, as a rule, to be measured thus:—25 sgr. or 2s. 6d. for the head of a family; 19 sgr. or 1s. 11d. for his wife when living with her husband; 17 sgr. or 1s. 8½d. for a child of 15 or upwards; 15 sgr. or 1s. 6d. for each child from 10 to 15 years; 11 sgr. or 1s. 1¼d. for a child from 5 to 10; 9 sgr. or 10¾d. for each child from 1 to 5; 6 sgr. or 7¼d. for a child under one year; 3 th. 12 sgr. or 10s. 2¾d. for a family with five children; 25 sgr. or 2s. 6d. for a single person.

"4. Poor-relief, in case of persons earning less than the means of subsistence, may be administered as out-door relief by grants of money, soup, clothes, and bedding, indispensable articles of furniture, free schooling, Surgical, Medical, and midwifery attendance, medicine, cost of funeral; or it may be administered in-door in the town poor-house."

It is by adherence to such rules as these, and by requiring the most minute inquiry into each application, that the change already mentioned in the number of poor and their cost has been effected. That the inquiry made by the visitors is excessively minute may be judged from the fact that *four* is a usual number of cases to be under the care of each.

How little prospect there is that the Elberfeld system can be adapted to our needs here, pressing as they are, will be allowed at once when, as Mr. Doyle says, "the counterpart to it with us would be a meeting of fourteen relieving officers,

(a) Under the Prussian law, parents, grandparents, and great-grandparents are bound, if capable, to support their children, grandchildren, and great-grandchildren. A corresponding obligation is thrown upon children, grandchildren, and great-grandchildren. Man and wife to support each other. Children-in-law, with certain exceptions, to support their parents-in-law. Parents-in-law, with similar exceptions, to support children-in-law. Persons hiring domestic servants are bound to support them, or pay the cost of their relief, for four weeks after they become destitute through sickness; so also the obligation to support a destitute person may be incurred by contract, as in cases of benefit societies, burial societies, etc.

unpaid, each with a district comprising not more than four cases, bound to administer relief in accordance with certain fixed and very stringent rules, each responsible to the majority of his fellows, and all responsible to the higher administrative tribunal, the town administration or *Verwaltung*. It may be further observed that these relieving officers should be selected from amongst well-to-do *citizens, shopkeepers, manufacturers, master mechanics, and men engaged in various professions*, and that they should be selected upon the *simple ground of their fitness for the office*." It is to be feared that in England—or, at all events, in the metropolis—the pursuit of wealth or of pleasure effectually precludes the adoption of an unpaid administration of relief, and experience of selections for existing unpaid local offices leaves but little hope that in England any man would be chosen to a new post of the kind upon the simple ground of fitness.

How Medical relief is given at Elberfeld we must see on another opportunity.

(To be continued.)

ATHETOSIS.

The term "Athetosis" (from Ἀθετος, without fixed position) has been devised by Dr. Hammond, of New York, as suitable to a rare class of cases in which the most characteristic symptoms are an inability to retain the fingers and toes in any position in which they may be placed, and their continual motion.

As far as he knows, only three cases have as yet been observed—namely, one by himself; one by Dr. Hubbard, of Ashtabula, Ohio, who sent Dr. Hammond an excellent report of it, accompanied by two photographs; and one by Professor F. Barker, of the Bellevue Hospital Medical School, of which no details have yet been published, and of which Dr. Hammond had not heard till after he had written his chapter on Athetosis in his "Diseases of the Nervous System."

The following is the history of the case which originally called Dr. Hammond's attention to the subject:—

J. P. R., aged 33, a native of Holland, consulted him September 13, 1869. His occupation was bookbinding, and he had the reputation, previous to his present illness, of being a first-class workman. He was of intemperate habits. In 1860 he had an epileptic paroxysm, and, since that time to the date of his first visit to Dr. Hammond, had had a fit about once in every six weeks. In 1865 he had an attack of delirium tremens, and for six weeks thereafter was unconscious, being more or less delirious during the whole period.

Soon after recovering his intelligence, he noticed a slight sensation of numbness in the whole of the right upper extremity, and in the toes of the same side. At the same time severe pain appeared in these parts, and complex involuntary movements ensued in the fingers and toes of the same side. At first the movements of the fingers were to some extent under the control of his will, especially when this was strongly exerted and assisted by his eyesight, and he could, by placing his hand behind him, restrain them to a still greater degree. He soon, however, found that his labour was very much impeded, and he had gradually been reduced, from time to time, to work requiring less care than the "finishing," at which he had been very expert. The right forearm, from the continual action of the muscles, was much larger than the other; and the muscles were hard and developed, like those of a gymnast. When told to close his hand, he held it out at arm's length, clasped the wrist with the other hand, and then, exerting all his power, succeeded, after at least half a minute, in flexing the fingers; but instantaneously they opened again, and resumed their movements.

Dr. Hammond treated him with galvanism, primary and induced, for four months without notable result. His fits were, however, arrested with bromide of potassium. His memory began to fail him soon after the attack of delirium tremens, and his intellect was obviously weakened before he first consulted Dr. Hammond.

On January 17, 1871, he entered the Hospital for the Diseases of the Nervous System; and Dr. Cross made the following report of his case:—

"The head is symmetrical, but is peculiar in shape, the posterior portion rising to a much higher point than the anterior, while the latter slopes downward and forward, giving the cranium the form of that of a Flathead Indian. The special senses are normal. The intellect is somewhat impaired, and his ideas are not so vivid at one time as at another. His memory is much enfeebled. There is slight tremor of both upper extremities, but there is no paralysis of any part of his body. There are, however, involuntary grotesque muscular movements of the fingers and toes of the right side; and these are not those of simple flexion and extension, but of more complicated form. They occur not only when he is awake, but also when he is asleep, and are only restrained by certain positions, and by extraordinary efforts of the will. Thus, those of the fingers are arrested when the wrist is firmly grasped by a strong hand, or when it is less forcibly held in a vertical position. But if the arm be extended horizontally, the fingers at once begin their movements. During their continuance the arm is hard and rigid, and the calf of the leg is also in the same state of tonic spasm while the toes are in motion. The movements are somewhat paroxysmal, being worse at times than at others. During the remissions the power of the will over the muscles is more effective than when the paroxysms are at their height. Sensibility to touch, pain, tickling, and temperature is normal in all other parts of the body. There is slight tremulousness of the tongue, but no difficulty of articulation. There are no oscillatory movements of the eyeballs (nystagmus). The involuntary contractions of the fingers and toes do not take place quickly, but slowly, apparently as if with deliberation and with great force. The numbness and pain in the arm, hand, leg, and foot have increased in proportion to the increase in the contractions. The toes are not involved to the same degree as the fingers. Position does not, however, afford the same relief to them as to the fingers, and the spasms are more tonic in character. The muscular development is greater in the right arm and leg, from the almost continuous muscular action. The toes are kept restrained to some extent by the boot, but as soon as it is removed they become flexed, and take on their peculiar movements. When, by a strong effort of the will, he succeeds for an instant in arresting the movements in the hand, the little finger at once becomes strongly abducted, the third finger participates to some extent, the second finger is slightly flexed, the index-finger is extended, and the thumb is extended to its very utmost."

In these peculiar positions the patient is able to quiet the action of the muscles, and to allow his hand and forearm to be photographed; and the peculiar position of the fingers, both in this and in Dr. Hubbard's case, is admirably illustrated in copies of photographs given in Dr. Hammond's volume.

On account of the severe pain in the whole arm, caused by the spasms in the muscles, the patient is at times unable to go to sleep until quite exhausted. On awaking, however, after a few hours' repose, although the actions have continued during his sleep, they are not so severe as at any other time through the day or night. This state of comparative repose lasts for about half an hour.

"His habits," says Dr. Hammond, "are bad. He boasts that he has often drunk as many as sixty glasses of gin in a day, and it is therefore doubtful whether the tremulousness observed in the tongue and the muscles generally is the effect of the disease or of drink, or of both combined. I have never, however, seen him drunk, or even under the influence of liquor. His mental faculties are decidedly more obtuse than when he first came under my observation. Under the use of the primary galvanic current to his brain, spinal cord, and affected muscles, and the internal use of chloride of barium, he is certainly improving; but I have little hope of any permanent result being obtained. His epileptic paroxysms are kept down with bromide of potassium."

The history of the case recorded by Dr. Hubbard shows that in this instance the disease was more advanced, the distortion of the hand being obviously greater; but, on the whole, the two cases are so similar that we need not enter into any details regarding the latter.

"Both cases," says Dr. Hammond, "came on with epileptic paroxysms—a feature accompanying other organic diseases of the brain and spinal cord. In both there are similar head-symptoms, tremulousness of the tongue, numbness on the affected side, pains in the spasmodically-affected muscles, and especially complex movements of the fingers and toes, with a tendency to distortion. In neither case is there any paralysis. Relative to the character of the lesion producing these symptoms, and its exact seat, I am not yet prepared to speak with any degree of certainty. The phenomena indicate the implication of intra-cranial ganglia and the upper part of the spinal

cord. The analogies of the affection are with chorea and cerebro-spinal sclerosis; but it is clearly neither of these diseases. One probable seat of the morbid process is the corpus striatum."

Dr. Hammond has published these cases with the view of directing the attention of his Professional brethren to an affection that seems hitherto to have been overlooked or confounded with some other disease.

THE HISTOLOGY OF FATTY TISSUE.

Fatty Tissue has been made the subject of an elaborate memoir by Flemming, in which its formation, its relation to connective tissue, and its retrogression into the latter are discussed. His observations were made on embryos and newly born animals (guinea-pigs and puppies), and also on animals artificially fattened, in order to make sure that the fatty tissue should be in the condition of increase; also on animals in a state of progressive emaciation. He is in agreement with most of the physiological and pathological observers on the point that fatty tissue is nothing but a modified connective tissue. Flemming finds that the development of fat is always dependent on vessels. The first deposit of fat takes place in the *tunica adventitia* of the bloodvessels, so that adipose tissue might in fact be called a loosely spread adventitious coat of the vessels. Moreover, the fat does not accumulate round newly formed outgrowths of vessels, but rather round those which are completely formed and comparatively thick. The production of fat takes place only in isolated foci, round certain vessels of the fatty lobule, while other quite similar vessels show nothing of the kind. The fat does not appear at first, as observed by Czajewicz, in the periphery of the lobules, nor is it contained, as has been asserted by other observers, in special smaller cells. A certain quantity is accumulated in the walls of the larger completed fat-cells, and a small number of fatty molecules are seen free, perhaps in consequence of the mode of preparation; but most is seen in what are believed to be fixed connective-tissue cells. Migratory cells are seen in great abundance, but are not different from the white corpuscles of the blood, and do not contain fat. The genuine young fat-cells have no membrane, and look at first sight like a heap of fatty molecules, varying in size; they are angular, or spindle-shaped, or polygonal, and only when they contain several larger drops of fat are they round. The smallest of them hardly exceed in size the normal fixed connective-tissue corpuscles.

In his observations on the wasting or absorption of fat, Flemming comes to the conclusion that the fat-cells become ultimately converted, not into a "serous fat-cell," as has been said, but simply into the ordinary flattened connective-tissue cell; in fact, that the process is precisely the converse of that seen in the production of fat.

His general results are, that fat-cells are formed out of the ordinary fixed elements of connective tissue, and can, by the loss of their fat, return to the condition of such connective-tissue cells again, and that there is no special preliminary tissue, and that the name of adipose or fatty tissue is accordingly superfluous. The "mucous tissue" of Virchow has no special relation to fat; it has merely the characters of all embryonic connective tissue.

The passage of fat into the fixed connective-tissue cells is not to be explained by its transmission through plasmatic channels communicating with connective-tissue corpuscles. The existence of these channels Flemming does not admit; but he proposes the hypothesis that fat circulates in, and passes out from, the vessels in a liquid form, and then, being absorbed by the connective-tissue cells, is precipitated in their substance.

The remarkable localisation of the production of fat, he thinks, depends upon the dilatation of the vessels at particular points, and he sees another evidence of this dilatation in the large number of migratory (extravasated) cells at these points.

Cancer *v.* Condurango.—The curative powers of this root for cancer on both sides of the Atlantic begin to be viewed in the light of another huge mare's-nest. The German papers have received a communication from Prussia House to say that the reports of the English Practitioners applied to by the German Embassy go to deny entirely the curative power of the condurango.

REVIEWS.

Neuralgia, and the Diseases that Resemble it. By Francis E. Anstie, M.D. Lond., F.R.C.P., Senior Assistant-Physician to Westminster Hospital, Lecturer on Medicine in the Westminster Hospital School, etc. London and New York: Macmillan. Pp. 296.

A book on the subject of neuralgia from the pen of Dr. Anstie is sure to be well worth reading, and we think we may also say of the present one that it is well worth careful study. The nature of the disease itself is at once so vague, and it is so excessively painful, that its study, though eagerly called for by the sufferer who desires relief, is far from easy, there being so few objective indications of the cause of the pain which is its prime feature.

Pain may, indeed, be said to be the essence of neuralgia; and, as in so many diseases it is a symptom of paramount importance, itself deserves careful study. To pain, indeed, Dr. Anstie first turns his attention; and he does well to draw a distinction between pain and hyperæsthesia. The two are certainly not identical, and, though they are often associated, they are also encountered apart—in point of fact, pain often coincides with diminution of sensibility, as is seen when pain of one kind or from one cause is used to neutralise that the product of another. In cases of defective nerve-supply, it is often our lot to encounter much pain at a spot so anæsthesic, that a hot iron may be applied to it for a moment without the individual perceiving it.

As to the etiology and pathology of neuralgia, Dr. Anstie holds that the disease is invariably connected with atrophic change in the sensory root of the nerve, which in some portion of its course is painful. Tendency to this change, or to some other form of neurosis, is, he thinks, hereditary; and, farther, that this inherited tendency may in the same individual manifest itself in various ways. This is clearly a matter of importance; and we see no more reason to disbelieve the transmission from parent to child of a tendency to certain neurotic diseases, than that mental and moral qualities are within certain limits hereditary. Next to hereditary tendency, Dr. Anstie considers bad early training, whether physical or moral, a potent cause of neuralgia.

Of mere purely physical causes, cold comes in for a large share, in the production of neuralgiaa which areconnected with peripheral irritation; but it would seem that to induce it to set up neuralgic pain there must be something more than mere cold in most cases. It must be persistently applied to one spot, as in a draught; or there must be some local defect to constitute a vantage-ground for the influence of cold. Injuries to nerve-substance, or prolonged pressure of tumours on nerve-tracts, are undoubted causes of neuralgia. Examples of the former are afforded by what frequently occurs after amputation or excision of joints; of the latter, by the so-called neuromata. Debility is a powerful agent in the production of neuralgia, but rather, perhaps, by securing a good soil for other influences than by trophic change. To conditions not of anæmia but of toxæmia, such as occur in gout and rheumatism, we should most certainly be inclined to relegate alcoholic neuralgia, which Dr. Anstie considers apart, and which he thinks is due to mere degeneration, induced by the action of alcohol. The condition of the circulating fluid has, we think, unmistakably some influence in the production of neuralgic pains, even though indirect. The remainder of this interesting chapter we have hardly time to discuss.

The complications of neuralgia constitute an exceedingly valuable chapter. The first here mentioned is vaso-motor paralysis. This we would be inclined to expect, from the known influence of irritation on a sensory nerve. Such changes cannot take place without affecting nutrition—the hair turns grey, the periosteum and skin become thickened, the epithelium of the mucous membranes, too, accumulates, whilst not unfrequently erysipelas shows itself. Affections of the eye, referable to a like cause, are far from uncommon. Secondary to neuralgia there is not unfrequently some muscular paralysis, as in the case of the bladder from pelvic irritation. So, too, convulsion may occur; whilst impairment of sensation, as we have seen, is frequently encountered. The profuse lachrymation connected with some forms of frontal neuralgia is also worthy of attention.

A word as to the diagnosis of neuralgia. The first thing, to our mind, is, that there is so little to show for the severe pain, either locally or constitutionally; and that the pain intermits. Of course there are some regions, especially those to which the fifth nerve is distributed, which are so frequently the site o-

neuralgia, that we are perhaps too prone to attribute any pain in their vicinity to neuralgia; nevertheless, neuralgia is confined to specific nerve-tracts, and it is mainly unilateral. Dr. Anstie places some reliance on the fact that neuralgia is aggravated by depressing agencies; but in this it is not peculiar, though, of course, it is an element in the case by no means to be neglected, either in diagnosis or treatment.

As to the treatment of neuralgia, Dr. Anstie divides it into four branches—by constitutional remedies, by narcotic stimulant remedies, by local applications, and by a prophylaxis. Improved diet (short of over-eating) he considers of very great importance, and fatty matters (which are often repugnant to the patient) are to be insisted on. For syphilitic neuralgia, iodide of potassium, in large doses, is of course the remedy; for malarial neuralgia, quinine and arsenic should be given; when there is gout, colchicum, but only in small quantity, and associated with other remedies. Strychnia and iron are invaluable medicines in appropriate cases—that is, when there is depression and anæmia. In angina, the author says arsenic is invaluable. Hypodermic morphia is wisely commended; so, too, in certain cases, is atropia (we prefer the extract of belladonna reduced with water). Belonging to remedies of this class are chloral and Indian hemp; perhaps, too, bromide of potassium. Blisters and other counter-irritants have their uses—so, too, have their opposites, aconite and veratria; but, of late years, no therapeutic agent has been so frequently or effectually used as electricity. The kind of electricity is important—induced electricity does harm; the constant and continuous current does good. Details of the mode of using galvanism in neuralgia we cannot give here, but its importance and utility are very great.

We have briefly alluded to some of the most prominent characteristics of Dr. Anstie's work, but there is one feature it possesses which will perhaps commend it more to some readers than all we have said: it is, in many respects, a narrative of personal experience. We should not have been justified in alluding to the fact had not the author himself so freely done so; but in his own system Dr. Anstie has, unfortunately for himself, a convenient field for study, he having been from time to time a martyr to this malady. Be this as it may, the book is well deserving attention, and doubtless will obtain what it justly merits.

The Skim-milk Treatment of Diabetes and Bright's Disease; with Clinical Observations on the Symptoms and Pathology of these Affections. By Arthur Scott Donkin, M.D. Edin. and Durham, Lecturer on Medical Jurisprudence and Toxicology in the University of Durham, late Physician to the Sunderland Infirmary and Dispensary, etc. London: Longmans. Pp. 317.

Dr. Donkin made and published, some time ago, a few observations on the use of milk as an article of diet, in certain affections characterised by defective nutrition, coupled with abnormal excretion. The two diseases he mainly dwelt upon were diabetes and Bright's disease.

Now, this we hold to be highly praiseworthy, even though the use of milk under such and similar circumstances is not new. Whey and milk cures have long been heard of on the Continent, just as grape cures, hunger cures, and water cures have been in vogue. Even Dr. Donkin, in point of fact, gives what purports to be a history of the milk treatment. Nevertheless, he claims originality in having applied it to diabetes; and if it turns out to be a satisfactory means of dealing with this troublesome malady, he will deserve to be regarded as a benefactor of his kind. But, this said, we fear we have said all we can with justice say in favour of the book. The treatment of a few cases of diabetes and chronic albuminuria with skim-milk cannot, we think, be considered at the present day equivalent to every other qualification for writing a treatise on either subject. Nevertheless, Dr. Donkin tells us that there is no very good treatise on the subject of diabetes in our language; and, as we understand him this volume appears to remedy that defect in our literature, he cannot therefore complain if we take him at his word, and test his production accordingly.

In doing so, it is somewhat difficult to know where to begin, for inaccuracies or deficiencies are "thick as leaves in Vallombrosa." First, however, so far as we can make out, Dr. Donkin seems to be unaware that sugar, or, at all events, a copper-reducing body, is found in normal urine; so that it is not the presence of sugar, but its presence in excess, which is the main feature of saccharine diabetes. As to the detection of this sugar, Dr. Donkin seems to rely on Moore's and Trommer's tests; but we fail to discover any account of any means whereby the quantity of sugar present in any sample of urine may be estimated. The test nowadays most frequently employed by those daily engaged in the examination of urine is Fehling's. To this there is no allusion. The two means most commonly used for the quantitative estimation of sugar are fermentation or the polariscope. According to Dr. Donkin, neither of these is in use. The one "has fallen into disuse," the other "is not generally known in this country." He himself relies on specific gravity alone—surely a most unsatisfactory way of estimating sugar; yet there is not in the book a single complete analysis.

"Our knowledge respecting the amount of urea excreted in the urine in diabetes is very indefinite and unsatisfactory," says Dr. Donkin. That being so, from the opportunities afforded him we might have expected to learn something with regard to it from the author of what aims at being a "comprehensive account" of the disease. Instead, we have merely records of the experiments of *Mr.* Sydney Ringer, as quoted by Dr. Parkes.

With regard to the pathology of diabetes, we had hoped to find something new in the way of observation; but here, too, the work of others is alone submitted to us, Dr. Pavy's researches being made to play a prominent part, although we had been led to conceive his book was useless, or next to it. We, further, have some important quotations from various other authors, among others one whose works are referred to in the following cabalistic formula—"Greifswald's Medicinische Beiträge, B. III. II. I."—which, we confess, we do not understand.

We might say more on this head, and pick out many more faults, but we turn with more zest to what is really valuable in Dr. Donkin's book—we mean his cases treated by skim-milk. The cases here recorded are seven in number, and full details of the treatment are given. In every instance the patients benefited, in some they got quite well. Now, this part is very good and useful, and had Dr. Donkin contented himself with its publication he would have done well, but he has unfortunately chosen to overload his book with second-hand material, and we have, as a direct consequence, been obliged to condemn it.

But this fault is even more apparent in the latter part of the volume referring to Bright's disease. What on earth has the fact that certain patients having albumen in their urine improved on skim-milk to do with the anatomy of the kidneys?—yet we have that lugged in. Still more is the author at sea when he begins to group Bright's diseases pathologically. The forms he recognises are the cirrhotic kidney, the waxy kidney, and the fatty kidney. The last he apparently makes co-extensive with chronic tubular nephritis, and not an accident to which all imperfect new-formations are liable. But the most curious idea is that the epithelium of a kidney undergoing fatty degeneration may proliferate, and beget new fatty cells under the use of any fat; so that the process of fatty degeneration would be favoured by the use of fat. This is fairly on a par with the pathology that refers the fatty liver of phthisis to the cod-liver oil used to check the disease.

We think Dr. Donkin's suggestions as to the use of milk both practical and valuable—we are prepared to put them to the test on the first convenient opportunity; but we do utterly object to have a treatise, poor in quality and insufficient in quantity, on anatomy, physiology, pathology, and things in general, inflicted on us for their sake. Dr. Donkin would do well to cut all that out.

Medizinische Jahrbücher. Herausgegeben von der K. K. Gesellschaft der Aerzte. Kedigirt von S. Stricker. Jahrgang, 1871. Heft I.

Year-book of Medicine. Published by the K. K. Gesellschaft d. Aerzte, Vienna. Edited by S. Stricker, for 1871. Part I.

This is the first quarterly division of the Year-book of the Association of Physicians in Vienna, who have entrusted their highly accomplished member, Professor Stricker, with the editorship of their organ. The book closely resembles in its external appearance the "Studies from the Institute for Experimental Pathology," which was brought out in 1869 by the same pathologist, and which has been incorporated with this new series, where the continuation of the subjects treated of in its predecessor will be found.

As might be expected, when we remember that the editor is Professor of Experimental Pathology in the University of Vienna, most of its pages are filled with the accounts of investigations on morbid processes in the various tissues, and with the conclusions to be deduced therefrom. But we shall find that this is not exclusively the case.

The Introduction, by the editor, is a brief expression of his opinion on the relation of pathology to practical Medicine. Contrasting chemistry, as a science, with pathology, he shows how there is a want of scientific theory in the latter. This is, however, supplied by the practical Physician, and the result is —what we have so much to lament—the present mixture to be found in Medicine of theories, hypotheses, opinions, and beliefs. Medicine suffers accordingly, and this condition reacts upon pathology. The morphography of diseases and the statistics of their course, leading respectively to diagnosis and prognosis, comprise the first part of pathology; but these according to Stricker, are at the present day kept in the background by irrational treatment, thus preventing real clinical advance, and turning away many of our best men from a pursuit which seems to them so superficial. Pathology, he continues, is as distinctly to be separated from pathological anatomy as is physiology from anatomy; and, while pathology joins physiology, and avails herself of the numerous means of research, morbid anatomy and anatomy must together forego altogether the use of these. The attempt made to establish a theory of disease as an independent doctrine has resulted n the introduction of the terms "pathological physiology" and "general pathology." Stricker shows the entire dependence of "general pathology" on special pathology, and draws attention to the work done during the last ten years—how it has taught us the value of "dry facts," and the utter uselessness of purely speculative general pathology. To the term "pathological physiology" he most strongly objects.

Finally, he says, pathology must settle with the other sciences in working laboratories if it would exist independently of practical Medicine and of anatomy—*i.e.*, it must be made experimental. He cites the cases of Magendie and C. Bell, as showing examples of what experiment may achieve. Yet experiment is but one thing; and he who would be an experimenter in pathology must be a pathologist to begin with.

The first paper is contributed by Dr. Genersich, on "The Doctrine of the Lymphatic Canals in the Cornea." It is written in support of Von Recklinghausen's views on the nature of the appearances produced by staining the fresh cornea with nitrate of silver; which views, although now almost universally accepted, met at first with more extensive opposition. Genersich carried out for this purpose two series of experiments, which he fully describes, with the results obtained. For the first, by inducing simple inflammation, he was able to make out changes in the protoplasmic contents filling the spaces—*i.e.*, in the corneal corpuscles. This speaks in favour of the spaces not being artificial products. In the second series, by transplanting the cornea of a frog with a lymph sac, he found leucocytes passing in and out of the canals or spaces, following exactly in their course the branches of the same. He never saw a wandering cell break through the walls of such a space.

Dr. Heiberg, in his article on the "Repair of the Corneal Epithelium," combats the statements of Julius Arnold, published in 1869, and founded upon certain observations on traumatic inflammation of the anterior epithelium of the cornea. In these statements Arnold expresses his belief that the tissue referred to is repaired from a blastema, which collects in the injured spot; that this blastema is a finely granular mass, that it becomes epithelium, and that this epithelium breaks up into portions separated by furrows. This opinion it is hardly necessary in the present day to disprove. We give, however, Heiberg's experiments and results:—Working with Stricker, he found (1) that, on scraping away a portion of the anterior corneal epithelium, and observing closely the various stages of the regeneration of the cells, no mass corresponding to Arnold's blastema was to be seen; (2) that, instead of it, a number of processes from the surrounding cells occupied part, at least, of the cavity; (3) that these processes went on to farther change; and (4) that from the processes portions are separated on the side towards the focus of reparation, and that these portions in their turn send inward processes till the cavity is filled up. After very many long, patient, and careful observations, Heiberg failed to see a wandering cell in any single instance pass into the focus of inflammation and become an epithelial cell.

The third paper is written by Güterbock, and is designated "Investigations on Inflammation of Tendon." The author starts with the assumption that the corpuscles of tendon are compact rod- or spindle-shaped cells linearly arranged, and not united into cylindrical tubes, as Ranvier contends. For this we do not believe Güterbock has sufficient ground, and the value of the present paper, considerable though it may be, is, in our opinion, diminished very much on this account. Under Stricker's direction, the experimenter induced inflammation in the tendo Achillis of the rat, rabbit, and guinea-pig by passing a thread through it, examining the injured tendon after certain intervals. He made out these successive changes in the tissue:—(1) Swelling of the cells, especially of the nuclei; (2) multiplication of the nuclei: in elongated cells the nuclei, when dividing, presented a peculiar rosette-shaped appearance; (3) after eighteen hours: disappearance of the fibrillar ground-substance, cells alone being to be seen lying in heaps, with yet more extensive proliferation and peculiar bunch-of-grape-shaped masses, instead of rosettes; (4) after twenty-four hours: presence of what might be called pus-cells; the source of these, though probably the previously-present rosette-shaped masses, was now almost impossible to discover.

Mr. Yeo's "Investigations on the Structure of Inflamed Lymphatic Glands" determined the occurrence of peculiar changes in the reticular connective tissue of glands during the inflammatory process. The pancreas aselli of the cat was the particular gland experimented on, by opening the abdominal cavity of the chloroformised animal, and passing a thread through the exposed body. After a certain time portions were removed, and examined, by hardening in alcohol, cutting sections, and agitation to wash away the proper gland-substance from the supporting framework. The fibres of this became, after from three to five days, thicker, and less distinctly defined, while nuclei came prominently forward in the swollen points of junction, and passed through the various stages of inflamed cells up to the fatty granular corpuscle. Of the changes in the proper gland-tissue, Dr. Yeo cannot speak; but the determination of the above is alone an important addition to our knowledge of gland-inflammation.

Laug publishes his "Investigations on the First Stages of Inflammation of Bone." The plan he adopted was the simple fracture of the bones of rabbits, with daily rubbing of their broken extremities upon each other. After about a week the changes upon the tissue were most decided; and Lang came to the following conclusions:—That the bone corpuscles are changed in inflammation, which has as its consequence an increase in the number of the cells within the bone tissue; that these cells can have but three possible sources—the blood, the connective tissue around the vessels, the bone corpuscles; that there is nothing in favour of either of the first two sources, but very much for the third. All the changes on the corpuscles progress with the appearance of the cells, increasing as they increase, and finally disappearing, with no residue to be found if the cells do not represent it.

The two following papers relate to the severe and somewhat peculiar discussion which raged in Vienna in the spring of this year between Professors Stricker and Billroth on the subjects of Pyæmia and Inflammatory Fever. These papers are exceedingly interesting to the pathologists of this country in several ways, and we propose for this reason deferring our notice of them to a future number.

One of the most interesting investigations described is that of Riegel "On the Reflex Innervation of the Bloodvessels." The experimenter proposed to himself two questions:—

1. Whether the changes to be seen on the vessels of inflamed tissues may be regarded as the direct consequence of the inflammatory stimulus, or whether the stimulus passes circuitously through the nerves. 2. Whether it is possible to have an exact knowledge of these changes—the changes referred to being both those of the lumen of the vessels and those of the velocity of the blood-current within them.

Riegel measured the velocity of flow in the vessel under the microscope by comparing it with a stream of known rapidity which he ingeniously passed through the objective and across the visible field, so as to appear side by side with the one to be investigated. The particular tissue experimented on was the web of the frog's foot, and the nerve irritated the great, sciatic in the thigh, which was cut after careful exposure. Here we can but mention the results he obtained, and they were briefly these:—That a moderate current applied to the stump causes not sloughing but acceleration of the velocity, and a moderate narrowing of the lumen of the arteries; that these increase with continuation of the irritation, to a certain degree; that in arteries, veins, and capillaries, by such stimulation, the velocity may be so much increased that it is almost impossible to estimate it. These results are quite opposed to those of Saviotti, at Würzburg, published some time before. He found a retardation of the flow accompanying the narrowing of the lumen. In a note to this paper, Stricker says he has tried to reconcile these opposite statements, and believes that they might have agreed had the same stimulus been used in the two cases. Riegel followed

up these experiments on reflected irritation by some on direct stimulation of the web of the foot. We recommend these to the reader.

The volume ends with a fragment by Rokitansky, on "Defect of the Inter-auricular Septum of the Heart."

COLONIAL CORRESPONDENCE.

AUSTRALIA.

Melbourne, October 10.

In consequence of the resignation, about a month ago, of Dr. Wilkie, one of the Physicians of the Melbourne Hospital, the election of an Assistant-Physician became necessary. This event took place on the 26th of last month, and resulted in the return of Dr. Neild by a large majority. As Dr. Neild had declared from the outset his determination not to canvass the contributors, his return was considered doubtful; for the system of personal solicitation has been so long regarded as an established rule here, that it was supposed he, like most innovators, would suffer for his departure from an acknowledged custom. Upwards of 700 of the contributors voted, and the excitement in connexion with the election was unprecedentedly great. The large majority gained by the successful candidate is very properly regarded as not only a success of which individually he may be proud, but as a triumph of that better principle which condemns the practice of the Medical candidates for Hospital appointments waiting personally upon every voter, and so encountering personal mortification, and lowering the dignity of our calling. Dr. Neild's election to the Hospital causes a vacancy in the staff of the Benevolent Asylum, with which he has been connected for six years. For this appointment there are several candidates, among whom is Professor Halford. He, also, is very properly resolved to abstain from a personal canvass, and to rely solely upon his merits.

Dr. Rees, the late Resident Surgeon of the Alfred Hospital, has severed his connexion with that institution. The committee, composed principally of persons having very little perception of what is due to a Resident Surgeon, annoyed and harassed him by a series of petty restrictions, and he resigned, rather than be subjected to treatment which could only be regarded as degrading.

The subject of Hospital maintenance has, for the last week or two, served as the occasion for public comment and journalistic animadversion in this colony. You are already aware that the revenues of our Hospitals are principally derived from the State, but that the control of them is altogether in the hands of the contributors. For some time the unreasonableness of this arrangement has been pointed out, and it has been contended that as the State has contributed such a large share of maintenance, it ought to have some part in the government of these institutions. It has been the custom hitherto for the State to give exactly as much money as was required to make up the difference between the expenditure and the amount of private contributions; but the present Treasurer of the colony has lately issued a memorandum to the effect that, for the future, the rate of State subsidy will be in the proportion of two-thirds to one of contributions, and that the rule will take effect at once. This determination is regarded as the beginning of a desire on the part of the Government to take the whole of the Hospitals under its care. Meantime it is considered as very arbitrary to enforce it without having given sufficient notice. The Government urge that more money should be raised in the shape of private subscriptions; but the truth is, the public have been so long accustomed to look to the State for the maintenance of the charities, that they have become habituated to the practice of not giving much. The immediate consequence of the partial withdrawal of State aid is seen in the determination of the Committee of the Melbourne Hospital to close up some of their wards, while the Committee of the Benevolent Asylum declare their intention of resigning, and so of throwing the responsibility upon the Government of taking charge of this vast Hospital for incurables, now containing upwards of 600 beds.

Meantime, as the business of our charities must go on, whoever votes the money for their maintenance, the new operating-theatre just built in connexion with the Melbourne Hospital, at a cost of about £1000, has been opened. This took place on the 5th inst., Mr. James, one of the honorary Surgeons, performing the first operation. It is a substantial, commodious structure, on the ground-floor, quite detached from the main building; and though this arrangement is a considerable disadvantage, yet the part for the spectators has been contrived with particular care for their convenience. A new operating-theatre was very greatly required. The old operating-room was quite at the top of the Hospital, and was in every respect inconvenient and unsuitable. The operation of ovariotomy has been performed at the Lying-in Hospital four times within the last five months—twice by Dr. Tracy, and once by Dr. Martin and Dr. Fetherston. Three of these cases have been successful, and the fourth—the last one, done by Dr. Tracy a fortnight ago—was perfectly successful so far as the operation was concerned, but death took place thirty-two hours afterwards, apparently from uræmic poisoning.

The movement for the establishment of a Hospital for inebriates does not make much progress. Public meetings have been held, and much spurious sympathy expressed for the inebriate; but the mistake made seems to be that of regarding the proposed asylum as a means of moral reformation, rather than as affording an opportunity for subjecting inebriates to scientific treatment. It is felt, too, that some of the promoters of the Hospital are using the occasion of its advocacy rather to give prominence to themselves than to help on a useful institution.

Among miscellaneous items, it is to be recorded that Dr. J. K. Ramsey has been appointed to the House-Surgeonship of the Alfred Hospital; that Dr. Fetherston has been appointed Physician to the Institution for the Deaf and Dumb, and Assistant-Surgeon to the Torpedo Corps; and that Dr. William Smith has resigned his several offices of Demonstrator of Anatomy in the University, Curator of the Pathological Museum in the Melbourne Hospital, and Surgeon to the Hospital for Children.

PROVINCIAL CORRESPONDENCE.

SCOTLAND.

Edinburgh, December 11.

Only a few weeks ago, while small-pox was epidemic in the surrounding towns and villages, Edinburgh could boast an all but entire freedom from the disease. Now and then one or two cases were met with, contracted, for the most part, by communication with infected villages in the neighbourhood; indeed, there was good reason to hope that Edinburgh might escape the disease to any serious extent. It was, therefore, with feelings of unpleasant surprise that the public learned through the newspapers, three weeks ago, that many cases of the disease were being conveyed from the surrounding towns and villages into the Royal Infirmary, which lies in the very heart of the densely crowded old town.

The propriety of thus carrying into the midst of a large and populous city, hitherto comparatively free from it, so virulent a disease, was very properly called in question at the time by Dr. Gairdner, of Glasgow, in a letter addressed to the *Scotsman*.

Within the last three weeks, the disease has spread rapidly in Edinburgh, and is now assuming the proportions of an epidemic. That this increase has been to any extent directly due to the cases brought from the country, I do not affirm; but this is unquestionably the fact, that the available accommodation has been to so large an extent encroached upon by cases from a distance, that within the past fortnight there has not been room in the Royal Infirmary, or in the King's Stables Hospital, to meet the requirements of Edinburgh. Many cases of small-pox have consequently had to be treated at their own homes, and the rapid spread of the disease is no doubt in a great measure owing to this.

The great prevalence of typhus, typhoid, relapsing, and scarlet fevers, in addition to the small-pox, has given rise to much anxiety; and the city authorities have at last applied to the managers of the Royal Infirmary for, and have been granted, the use as a temporary Small-pox Hospital of the now unoccupied building of Watson's Hospital, which stands on the site of the future Infirmary.

It is to be hoped that now every case of small-pox which occurs will be promptly removed to the new Hospital, and that thus the risk of the disease spreading indefinitely will be greatly lessened.

If all the cases of small-pox are removed to Watson's Hospital, greatly increased accommodation will be available elsewhere for the fever cases.

GENERAL CORRESPONDENCE.

ENTERIC FEVER.

Letter from Dr. Francis R. Hogg.

[To the Editor of the Medical Times and Gazette.]

Sir,—On reference to the invaluable Reports of the London Fever Hospital, it appears that from 1848 to 1864 the total number of cases treated amounted to 3076, the average for each year being 176, excepting in 1860—remarkable for its cold and rainy summer and autumn—when the numbers fell to 94. Conversely, the admissions (very low in spring) rise at the end of autumn after a hot dry summer. Many of the patients were servants in private families, or had been in good circumstances. The sexes, taking the general average, appear to have been evenly divided. In 1862, of 220 admitted, 30 died; in 1863, of 170 admitted, 24 died; in 1864, of 252 admitted, 50 died; in 1865, of 520 admitted, 96 died; in 1866, of 575 admitted, 108 died; in 1867, of 378 admitted, 55 died; in 1868, of 461 admitted, 71 died; in 1869, of 368 admitted, 62 died; and in 1870, out of 595 admitted, 93 died. Making a general total during this period, the admissions amounted to 3543, of whom 589 died.

The characteristic eruption of the disease was noticed from 1862 to 1870, both years inclusive, in the following percentage:—88, 88, 93, and 61 per cent. in 1865; 65, 77, 71, 68, and 57 per cent. in 1870.

In 1862, death in seven instances was attributed to perforation and peritonitis, in five instances to hæmorrhage from the bowels, and in seven instances to inflammation of the lungs.

In 1863 mortality was high amongst males. In 1864 a large number of cases came from Greenwich. In the autumn of 1865 yellow fever appeared in Britain; and in October, after six weeks' want of rain, and with a mean temperature through two of those weeks of 66½°, enteric fever acquired a new power. In July, 1866, Asiatic cholera broke out in London. In the Report for 1867 it is interesting to quote from the table of ages. Four cases were under 5 years of age, no deaths; from 5 to 9 years, 58 cases, 6 deaths; from 10 to 14 years, 75 cases, 6 deaths; from 15 to 19, 100 cases, 15 deaths. The numbers then decline until we reach the ages of 50 to 59—2 admissions, no deaths. In 1868 the summer was particularly hot, and the numbers rose; but in 1869, coincident with cold weather, the fever diminished. In 1870, the prolonged drought and summer heat telling on bad drainage and equally bad drinking-water, the admissions rose to 595.

Fatal Complications.—Calculating from 1863 to 1870, both years inclusive, it appears that, out of 757 cases complicated with pulmonary affections, 231 died; hæmorrhage of the bowels, 132 instances, 52 deaths; peritonitis, 54 instances, 51 deaths; perforation, 26 instances, all fatal; erysipelas, 19 instances, 6 deaths; parotid swellings, 15 instances, 8 deaths; cancrum oris, 3 instances, all fatal; jaundice, 6 cases, 1 death; convulsions, 4 cases, 1 death; gangrene, 2 cases, both fatal; relapses, 59, of whom only 4 died; of thrombosis of femoral vein and nephritis, each a fatal case; of 18 instances of bedsores, 1 died; of 8 complicated with otorrhœa and 9 with epistaxis, a case of each died; out of 17 instances of pregnancy, 10 aborted and 3 died.

Non-fatal Complications.—Instances are recorded of phlegmasia dolens, phlebitis, laryngitis, tuberculosis, rubeola, variola, typhus, glossitis, purpura, scarlatina, rheumatism, epilepsy, synovitis, abscesses of the neck and breast, retention of urine, necrosis of the tibia, cardiac disease, etc.

Health of Officials.—From 1855 to 1864, during which period 1500 cases were treated, only one nurse was attacked; but in 1864, owing to defective drainage, a cook, a child, a Medical officer, and a patient contracted enteric fever. From that time until 1870 a scarlet fever patient, three nurses, and two servants also caught the fever; but from 1855 until 1870 no death either amongst the Medical officers, nurses, or servants from this disease appears recorded.

It may not be generally known that the London Fever Hospital, founded in 1802, has no endowment, and is the only institution in the metropolis for the treatment of patients (not paupers) suffering from contagious fever, and that since the establishment of the Hospital up to December, 1870, the total number of patients treated has amounted to 60,957.

Whilst engaged in the pleasant and interesting task of compiling statistics referring to enteric fever, many of the calculations as to results of complications appear so satisfactory that, up to the very last, almost until peritonitis sets in, one hopes for recovery. Throughout England, however, there can be but one feeling this morning (December 11) of hoping against hope.

In the summer of 1861 (it only appears yesterday, ten years roll so quickly on) there was a splendid review at the Curragh, nearly all the Royal Family present—Prince Albert on horseback. The Prince of Wales, then a stripling lad, in his scarlet tunic and bearskin, marched past his parents with his regiment, the band playing the "British Grenadiers." The rain came down, and everyone was drenched.

In December, 1861, when war with America appeared impending, the death of the Prince Consort spread universal gloom. The troops marched off silently and mournfully, the bands did not play; and at sea that cold Christmas, and travelling also in sleighs over miles of frozen lakes, one subject of conversation rose uppermost. It just occurs to mention that at one halting-place a bandsman, for a few minutes carrying a bucket in each hand, with his fur gloves off, was frost-bitten, and amputation at each wrist had to be performed.

Apologising for the length of this letter,

I am, &c., Francis R. Hogg,
Assistant-Surgeon R.H.A.

THE DECLARATION RESPECTING ALCOHOL.

[To the Editor of the Medical Times and Gazette.]

Sir,—As one of those who signed the paper on alcohol, referred to by Dr. Beale in his letter in your last issue, I cannot help expressing my regret that Dr. Beale should not have felt able to attach his signature.

The declaration is no censure on the Profession, and certainly no imputation that the great national intemperance is owing to Medical men; it is simply an opinion expressed by those of greatest weight in the Profession of the necessity of using alcohol with due caution in disease. It surely cannot be a matter of doubt that some Medical men, by incautious recommendations or insufficient attention, have led some of their patients to take too much alcohol. I know personally some such cases, and I presume instances of the kind must have occurred to many.

I regret, also, I cannot agree with Dr. Beale's other remarks.

Surely, if any body of men are called on to give advice to the public respecting this matter, it is the Medical Profession, which is charged with the health of the public. Dr. Beale quite exaggerates the plain object of the second paragraph of the declaration, which is not to lay down rules for social habits, but to urge on Medical Practitioners the importance of inculcating habits of moderation in the dietetic use of alcoholic liquids.

An expression of opinion by the Medical Profession, that they will gladly support any wise legislation which will introduce habits of temperance, is surely also one which it is at this moment specially desirable should be made by the leaders of the Profession. It will strengthen the hands of Government, and thus indirectly benefit the entire kingdom.

It is very much to be deplored that so good an object should not receive unanimous support.

I do not append my name to this letter, for the declaration is signed by so many men higher in the Profession than I am, that it would be presumptuous in me to make myself their mouthpiece. But I do not wish to be anonymous to Dr. Beale; and, when he learns my name, he will know, not only that it is that of a friend, but of a man who places the highest value on Dr. Beale's opinions. I am, &c., F.R.S.

BRISTOL MEDICAL BENEVOLENT FUND.

Letter from Mr. Stamford Felce.

[To the Editor of the Medical Times and Gazette.]

Sir,—Will you kindly permit me to make a Christmas appeal to your readers on behalf of the British Medical Benevolent Fund, a charity which I venture to say has a strong claim on the practical sympathy of all our brethren.

Help *promptly* given, help *quietly* given, is, I may say, a distinguishing feature of this benevolent fund—and I might add, help *carefully* given and help *inexpensively* given, for I can assure you that I know of no society whose meetings are more regularly or better attended than the monthly committee-meetings at 11, New Burlington-street; while the only paid official is the collector.

The cases relieved by grants during the past eleven months have been 102; but, inasmuch as some of these cases represent

large families of children, the number assisted is really much greater. The sum of 834*l.* has been thus expended; and, to meet the cases which may crop up this month, our treasurer had at its commencement a balance remaining of about 20*l.* only. If it were not for fear of trespassing too largely upon your space, I should like to give the details of a few cases as specimens of the want and misery I ask your readers to assist in alleviating—want and misery all the more bitterly felt, as in most instances the sufferers have been at some time or other in comfortable circumstances.

Donations or subscriptions, however small, will be thankfully received by the Treasurer, Dr. Hare, 57, Brook-street; the Honorary Financial Secretary, C. S. Webber, Esq., 1, Upper Berkeley-street West; or by

Yours, &c., STAMFORD FELCE,
Honorary Secretary.

12, Chippenham-road, W., December 12, 1871.

N.B.—Articles of clothing for men, women, or children I am always glad to receive for our applicants.

MEAT EXTRACT.

LETTER FROM MR. STEPHEN DARBY.

[To the Editor of the Medical Times and Gazette.]

SIR,—Will you permit me to call the attention of your correspondent "Beefeater," writing from Pau, to an article in your journal of June 10 last, on the preparation (or rather the changed form) of meat for which I have adopted the above title; and further, to state that in it not only is the "colleine" preserved, but the whole of lean meat—fibrine, albumen, gelatine, and extractives—is offered in a perfectly soluble form, and with this last not trifling advantage: it is quite as "nutritive as slices of tender roast beef." To this most of my Medical friends will bear me testimony, and also that, in many cases where the digestive powers have become so weakened that even beef-tea cannot be taken without causing flatulence and pain, the fluid meat causes no such results, being in a condition admitting of very speedy absorption into the system.

If your correspondent will take into consideration the very small proportion extracted from beef by even long-continued boiling in water, and that the portion rejected is certainly not the least valuable in point of nutrition, the inferiority of "unscientific beef-tea" to a preparation such as I have indicated must be at once evident. I am, &c.,

140, Leadenhall-street. STEPHEN DARBY.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, NOVEMBER 28.

MR. CURLING, F.R.S., President, in the Chair.

MR. WILLIAM FAIRLIE CLARKE read a paper

ON A CASE OF UNILATERAL ATROPHY OF THE TONGUE.

Mrs. H., aged 45, the wife of an oilman in the North of London, became aware of a tumour in her right breast in the spring of 1869. In February, 1870, she showed it to Mr. Hume, of Devonshire-street, Islington, and he recommended that it should be removed at once, as it had all the characters of a malignant growth. It was accordingly excised on February 16. The wound healed slowly, but satisfactorily. On April 15 she complained of cough and slight dyspnœa, the latter only noticeable after exercise. Under treatment the cough soon disappeared, but the dyspnœa continued. On October 3 Mr. Hume was called suddenly, and found her suffering from a deep-seated pain on the right side of the head, of a periodic character, returning each night between one and two o'clock a.m., and rendering her for some hours incoherent and unmanageable. Many remedies were tried; but the only thing which gave her relief was morphia in grain doses. It was at this date that the atrophy of the tongue was first noticed, though it was not then so marked as it afterwards became. On March 29, 1871, Mr. Hume was again urgently required to attend, and found the patient suffering from all the old symptoms, but in an aggravated degree; and in addition there was an alarming dysphagia, together with paroxysms of suffocation, which recurred about three times in the twenty-four hours. On being asked to protrude the tongue, she always appeared unable to do so at first; and, on the request being repeated, would reply, "Wait a minute." Then, after a few moments' deliberation, she put it out very slowly. The tongue was puckered and crimped along its whole right side from base to apex, though these appearances were the most marked at the anterior two-thirds. An actual loss of substance had taken place, but it was bounded exactly by the median raphe; and the contrast between the plumpness of the left side and the shrivelled aspect of the right was very striking. When it was protruded, there was no deviation to either side. Articulation was slow and difficult. There was great pain along the right side of the neck, with a certain fulness and turgescence of the vessels, but no tumour could be felt in any part of the mouth or neck. Together with these symptoms there was general cachexia and great prostration of strength. From this time the dysphagia and dyspnœa gradually became worse; and on June 7, in one of the attacks of suffocative cough, the patient died. At no time during her illness had there been any paralysis of the extremities, and her intellectual faculties remained clear throughout her whole illness. Unfortunately, no autopsy could be obtained; but, looking at all the circumstances of the case, the writer thought there was good reason to believe that the ninth nerve on the right side was involved in a secondary cancerous tumour, such tumour being situated either within the cranium or at the upper part of the neck, and pressing upon the right hypoglossal nerve, and more or less implicating the pneumogastric and glosso-pharyngeal nerves as well. The writer then proceeded to compare with this case two other instances of well-marked unilateral atrophy of the tongue—the one related by Dupuytren in the "Leçons Orales" (Lecture on Hydatid Tumours); the other by Sir James Paget, in the third volume of the *Transactions of the Clinical Society*. The experience of Romberg and of Bidder was adduced to show that this remarkable condition of the tongue may be produced by a lesion of the ninth nerve; and to establish the same point, the author related an experiment that he had made. On October 25 he divided the right hypoglossal nerve in a rabbit, and took out a piece about a quarter of an inch in length. Immediately after the operation, and during the whole time that the animal was under observation, the tongue was strongly protruded to the right side. On November 27 the rabbit was killed. It was found that the nerve had united by a soft, gelatinous, and highly vascular substance, of about twice the ordinary calibre of the nerve. The right side of the tongue, along its posterior half, was slightly wasted and flattened. The preparation was exhibited; and an outline sketch, illustrating the case which had been related, also accompanied the paper.

Dr. JOHN HARLEY acquiesced in the view that the nerve affection was due to a cancerous tumour. It was not unusual in scarlatina, when the glands were swollen, to note deviation of the tongue. He had a case now in hand occurring in a youth of 15. He suffered from occipital headache and vomiting at intervals; his tongue deviated. The glands were swollen on both sides, especially the right.

Dr. BASTIAN was by no means certain that tongue atrophy was always associated with paralysis of the ninth. He had a case of paralysis of the tongue where there was no paralysis of that nerve. The deviation was slight. When tested by faradisation contractility was left. Another case reported by Juccoud showed the same. In a case of progressive muscular atrophy there was paralysis of the tongue on one side, and so of the face. These cases had been long under notice, yet no wasting of the tongue followed. After death the anterior roots of the nerves were much atrophied, and so with regard to the facial and hypoglossal, whilst the fifth was healthy. Juccoud thought the sympathetic fibres go with the fifth to the face, rather than with the motor nerves; such, also, was his opinion. There was no atrophy in the rabbit, though there was deviation of the tongue.

Dr. HABERSHON referred to the case of a woman, aged 52, who was in Guy's Hospital with a tumour of the breast. This wasted, but the glands in the axilla and neck enlarged, and the right side of the tongue became flaccid. The tip was turned to the left, and she had difficulty in managing her food. Sensation in it was perfect. The right sterno-hyoid was paralysed. She suffered from pain in the back of the head and spine, and she gradually wasted and died. There was found to be cancer of the skull-bones, implicating the orifice of the eighth nerve, and the vertebræ were cancerous.

Dr. HUGHLINGS-JACKSON thought the case a very rare one. In no case had he seen palsy of the tongue either on one side

or on both sides without palsies of other parts. Thus, in a case of syphilitic disease there was palsy of the left portio dura and eighth nerve, as well as palsy of the left ninth. In a case of tumour of the medulla oblongata and pons Varolii there was palsy of the fifth, sixth, seventh, eighth, as well as of the ninth on the left, and paralysis of the right arm and leg. He mentioned the case of a man who found out one morning that he was hoarse, and that his tongue was turned to the right side "like a hook." There was palsy, with wasting of one side of the tongue, paresis of the right side of the palate, and palsy of the right vocal cord. As the man was past fifty years of age, as he had albuminuria, and as the symptoms came on in one night, the probability was that they were the result of clot. In one case of sudden palsy of the tongue, palate, and orbicularis oris, which he had seen, Dr. Lockhart Clarke discovered relics of effusion of blood in the medulla. Dr. Lockhart Clarke's researches, showing the close relations of the lingual and spinal accessory nuclei, gave the explanation of cases of lesion in the medulla producing palsies of the several factors concerned in articulation, deglutition, and voice. Dr. Hughlings-Jackson had never seen wasting of the tongue from paralysis of the fifth nerve, although the temporal and masseter muscles wasted.

Dr. William Ogle referred to a case reported by Dr. Salter, where the hypoglossal was cut, and paralysis and atrophy followed. The tongue might be protruded straight after section of the hypoglossal, and it was not always protruded to the side of the lesion. The geniohyoglossus protruded the tongue, and that might be paralysed without causing deviation. Withdrawal of the tongue reverses the deviation. In the rabbit the tongue on the injured side was higher than usual.

Dr. Hilton Fagge said there were two drawings at Guy's of such atrophy, and he had seen one case himself in a boy aged 5½ years with disease of the upper cervical vertebræ. In this case the odontoid process projected through the dura mater. He thought the transverse fibres might push the tongue to the opposite side.

Mr. T. Smith thought the geniohyoglossus enough to thrust the tongue to the other side.

Mr. H. Power said Dr. Bastian entered on the question of trophic nerves. He thought they went with the fifth to the tongue, and Mr. Clarke with the eighth. He cited the instance of the ophthalmic of the fifth being divided, and producing destructive inflammation of the eyeball, as showing that sensitive nerves did preside over nutrition. He thought the atrophy must be due to vaso-motor paralysis.

Mr. Soelberg Wells said Meissner divided the fifth, it was true, but inflammation only followed section of the inner division of the ophthalmic.

Mr. Brudenell Carter alluded to another class of cases connected with trophic nerves—viz., cases of herpes. With such the ganglia became enlarged. He had seen frontal herpes followed by increased tension and turbidity of the cornea, with exaltation of sensation. This was, perhaps, due to affection of the cavernous ganglion.

Mr. Barwell said that in this case it was assumed that cancer was the cause of the paralysis, the disease recurring after extirpation. He thought there was no evidence of this.

Mr. Holthouse had seen a case of strabismus with pain at the back of the head. The left side of the tongue was atrophied, and the patient had difficulty with food. The ninth and sixth nerves were affected, apparently from syphilis. The patient got well.

Mr. Clarke briefly replied.

Dr. Wm. O. Priestley read a paper on

CASES OF INTER-MENSTRUAL OR INTERMEDIATE DYSMENORRHŒA.

The author pointed out that, although much had been written concerning dysmenorrhœa, and several forms of it had been described in accordance with the pathological views taken of its causes, the description of the several varieties was ordinarily limited to the time of the catamenial period, with the two or three days additional which may precede and follow the menstrual flow. From time to time, however, cases of a more obscure kind presented themselves, in which the chief suffering is remote from the actual menstrual period, but comes on, nevertheless, with the same punctuality, and is probably dependent on organic changes associated with the production of the catamenia. Probably other Practitioners had observed like instances, as they were not unfrequent, but as the author had met with no description of them, he brought the subject before the Society as a fragmentary contribution to the pathology of uterine affections, which might possibly evoke further elucidation by discussion. In all the cases detailed severe pain was experienced by the patients midway in the menstrual interval. The pain commonly came on about fourteen days after a catamenial period, and, after lasting a variable number of days, ceased before the supervention of the next expected period. In one case the pain, beginning midway in the interval, ran into the following monthly period, and was relieved by its flow. The suffering was constantly referred to one or other ovarian region, and in three cases out of four marked tumour, or thickening from old adhesions, was found in that locality. The reason for the occurrence of pain in the inter-menstrual period, and with such regularity, was not, in the present condition of our knowledge, perfectly obvious. A study of the physiological and pathological conditions left little doubt, however, that it was due to perturbations in the function of "spontaneous ovulation" habitually going on in the ovary. Hypertrophy of the structure of the ovary, or thickening of its indusium, would lead to undue vascular excitement, and impede the advance of ova to the surface in their attempts to attain maturity. It was not unreasonable to suppose, from all the known facts of the case, that preparation for an approaching period began in the ovary ten or fourteen days before the occurrence of the monthly uterine discharge, and if the initial steps in the process of ovulation were opposed by certain pathological conditions, pain would ensue. Nay, in the absence of distinct organic change, it might readily be imagined how special irritability in the ovary would cause an unusual amount of disturbance whenever there was occasion for the exercise of fresh activity in the organ. This latter class of cases would partake more or less of a neuralgic character. The treatment would depend on the pathological condition as ascertained by examination. The pain being only a symptom, it would be needful to inquire into the cause; and, if there were tumour, or thickening depending on former inflammation, absorbent remedies would be indicated. If no organic change of structure could be detected, anti-neuralgic remedies, such as quinine, iron, and arsenic, would best answer the purpose of cure.

Dr. Elam asked how far this idea would correspond to that commonly entertained with regard to fecundation.

Dr. Priestley said the facts in nowise militated against the ordinary ideas.

MEDICAL SOCIETY OF LONDON.

Monday, October 30.

Dr. Andrew Clark, President, in the Chair.

M. Victor de Méric narrated the following case:—The patient, aged 45, was forcibly raised from the ground by his assailant, who attempted to throw him into a wine vat. Some of the lower ribs on the right side suffered fracture near their angles. He was sent to the London Hospital to have a broad bandage applied. On the fourth day the bandage was comfortable, and there was no dyspnœa or fever. During the next few days the symptoms became alarming—hurried breathing, severe pain in the left side of the chest, restlessness, anxious countenance, and abundant expectoration. On the eleventh day the patient was in a typhoid state, the whole of the left side of the chest being dull on percussion, and offering no respiratory sounds whatever; the right side sounded well. The respiration being quite puerile, it was concluded that from pressure or shock the left pleura had been injured, that effusion had taken place, and that the case was one of acute pleuro-pneumonia. The negative symptoms were, absence of pain or stitch, and no bulging of the intercostal spaces. The patient gradually rallied, and at the end of two months left his bed. The physical signs varied but little; the cough and dyspnœa were at no time very distressing. It was thought that, since succussion produced no splashing, false membranes were lining the pleura costalis. About ten weeks after the assault, faint gurgling began to be heard towards the apex of the left lung, and it was supposed that the left lung was getting partially freed. The gurgling soon, however, assumed the character of air passing through a small vomica filled with fluid. It was regarded now as a case of phthisis of long standing, followed by the complications described. The fractured ribs had united. The patient gradually sank, and died on the ninetieth day after the accident. Post-mortem examination: Right lung, collapsed, filled two-thirds of the cavity; several tuberculous circumscribed deposits in it varying in size from a pea to a walnut. On the left side lay a large dense greyish-looking mass occupying four-fifths of the whole cavity. It was extremely hard, and had contracted adhesions. The pleural fluid on both sides (four ounces) was reddish, and

small in quantity; the left lung formed a solid mass, composed of tuberculous fibroid infiltration. On section, no trace of vessels, air-tubes, or air-cells could be made out; no oozing was perceived; not a sign of breaking-up or of pus, and of course no vomica; heart atrophied. The man supposed himself to be healthy; his occupation was laborious. There was no family history of phthisis. We must therefore suspect that the pleuro-pneumonia did the mischief, though it is difficult to believe that the induration would be so extensive if some previous pathological changes had not been present. The importance of the bulging of the ribs and dyspnœa is shown in this case. The presence of tubercle in the right lung suggests that it might be present in the left also. Ninety days was hardly sufficient to transmute the left lung from a perfectly healthy state to the mass above alluded to.

Dr. Douglas Powell was unable to understand why this was called a case of phthisis. He would consider it, from an examination of the specimen and the clinical history, a case of pneumonia in the grey stage.

The President remarked that it was not a case of what he called fibroid-phthisis, which would present ulceration and suppuration of a more or less circumscribed non-malignant deposit in the lung. If there was no cavity there was no phthisis. Some bronchi become blocked by exudation; fluid collects in them, and gives rise to gurgling.

The specimen was an excellent example of the hard form of grey pneumonic consolidation.

LEGAL INTELLIGENCE.

IMPORTANT CASE.—PROSECUTION OF A BOTANICAL PRACTITIONER.

A case (Dalrymple *v.* Lakin) was recently heard at the Leicester Police-court, before the Mayor and a bench of magistrates. The defendant was summoned, under the Medical Act, for having illegally practised as a Doctor of Medicine. Last week the judgment, which had been postponed, was read by the clerk, and was as follows:—

"The defendant is charged, under Section 40 of the Medical Act, with having wilfully and falsely taken and used the name and title of a Doctor of Medicine, he not being by law entitled to use such name or title. It was proved, on behalf of the prosecution, that the defendant occupies a house in New Bond-street, Leicester; that in the window are coloured bottles, breast-pumps, bottles of castor oil, Medical pamphlets, etc.; that the shop inside is fitted up in the same manner as open surgeries frequently are in other towns, but of which there are few, if any, in Leicester; that the words 'Dr. Lakin' are on a brass plate at the side of the front door; that the words 'Dr. Lakin, Botanic Practitioner,' are painted above the window for the whole length of the front of the house (about twelve feet long) in letters about five inches in height; and that the defendant had attended one of the witnesses, in the capacity of a Medical man. A certificate of death, signed by the defendant as M.D. (U.S.), was produced before us by the Deputy Registrar of Births and Deaths. The defendant, in answer to the charge, produced a diploma of Doctor of Medicine, dated October 1, 1870, purporting to be granted by the Eclectic Medical College of Pennsylvania, United States, incorporated by an Act of the General Assembly of the Commonwealth of Pennsylvania, under the seal of the College, and under the hands of six of the Professors. A witness named Crick was called on behalf of the defendant, who was in the possession of a similar diploma to that of the defendant, dated April 27, 1867, and he stated that such diplomas are granted without any personal examination by the Professors, or any attendance at the lectures of the College, although the diplomas recite that they have been granted after the applicant for the degree has attended two full courses of Medical lectures, and passed a successful examination in each department of study 'before us, the Professors of the College.' The witness further stated that all that was required from him previously to obtaining the degree was to answer certain questions sent to him by a board of examiners at Leeds, to attend once personally at Leeds, and to pay certain fees, the amount of which he could not recollect. The diploma possessed by the defendant had all the appearance of authenticity, but was not proved in evidence to be genuine. Four cases were cited in the course of the hearing, two of which (Pedgrift *v.* Chevalier, 29 Law Jour. R. M. C., 226; and Steele *v.* Hamilton, 3, L. T., N. S., 322) have no bearing on the present charge, they having turned on the question of the sufficiency of the evidence as to the defendants not having been in practice as Surgeons before the Act passed, or before 1815; but the other two cases have required our consideration with reference to the facts of the present case. In Ladd *v.* Gould (1 Law T., N. S., 325), the defendant had used the word 'Surgeon,' followed by the words 'Mechanical Dentist,' on the side of his door, and the justices had dismissed an information charging him with having used the title of 'Surgeon.' The Court of Queen's Bench held that it was a question of fact for the magistrates to decide, whether by the use of these words the party proceeded against was guilty of an offence against the statute; and Lord Chief Justice Cockburn said that there was not, in his opinion, any false pretence in using the word 'Surgeon'; that he should have come to the same conclusion as the magistrates, that it was like the case of persons calling themselves 'Surgeon-dentists' (or, as Mr. Justice Crampton remarked, 'Surgeon-chiropodists'), but that there was evidence upon which the magistrates might have come to either conclusion, although, in the opinion of the Court, they had arrived at a correct one. In the remaining case of Ellis *v.* Kelly (30 Law Journal R. M. C., 35, and 6 Hartstone and Norman, 222), it appeared that the defendant, who was a duly registered Surgeon, had used the prefix of 'Dr.' to his name for some years before the Medical Act; that he was in possession of a diploma as a Doctor of Medicine of a German university; but that such diploma was not proved to be genuine. The justices had dismissed an information charging him with having used the title of Doctor of Medicine. It was held by the Court of Exchequer that the word 'Doctor' must, under the circumstances, be taken to mean a Doctor of Medicine; that a person falsely calling himself a Doctor of Medicine (per Baron Bramwell) would be liable to a penalty, although he was in reality a Member of the College of Surgeons or of the Apothecaries' Company, and so registered; but that the words 'wilfully and falsely' meant 'wilful falsity,' and that the possession of the foreign diploma, although not proved to be genuine, so far justified the defendant in using the prefix 'Dr.'—as he had done before the Medical Act was passed—as to exonerate him from the charge of having 'wilfully and falsely' assumed that title.

"It is rather singular that there is no reported case of a successful prosecution under Section 40 of the Medical Act. In the case before us it appears that the words 'Dr. Lakin,' are on a plate at the side of the door—that the words 'Dr. Lakin, Botanic Practitioner,' are over the window in large letters, extending the whole length of the front of the house. That the defendant is in possession of an American diploma, and that in a certificate of death he describes himself as 'M.D. (U.S.).' With respect to this certificate, we think no one can successfully contend that a person who actually describes himself as 'M.D. (U.S.),' evidently meaning a Doctor of Medicine of the United States, is guilty of the offence of wilfully and falsely assuming the title of Doctor, so as to imply that he is a recognised Physician in England, and the words 'botanic practitioner' would probably be viewed in the same light as 'mechanical dentist' were in Ladd *v.* Gould, as they do not appear to be such words as would be used by any Medical man who wished it to be known that he was a legally qualified Practitioner, and registered under the Act. Although we could have wished that the facility with which foreign diplomas are obtained, and their utter worthlessness in many cases as tests of Medical proficiency had been more fully brought under the notice of the Court of Exchequer in Ellis *v.* Kelly, which opened the door for the admission of foreign diplomas for the purpose of negativing the charge of a false pretence, and the view of the right to use the word 'Doctor,' taken even in a work regarded as one of the organs of the Medical Profession, in which it is broadly stated that a person in the possession of the degree of M.D. under a diploma from the College of Pennsylvania, however obtained, has the right to call himself a 'Doctor of Medicine' if he pleases (see *Lancet*, September 23, 1871, page 457), we do not feel justified in convicting the defendant of the serious offence of having, by 'wilful falsity,' used the title of Doctor, he being in possession of a diploma from an incorporated college in the United States, which has the appearance of being (although not legally proved to be) genuine, as the possession of such a document may have led the defendant to believe, in common with some members of the Medical Profession in England, as shown by the publication to which we have referred, that he was entitled to use the prefix of 'Dr.' to his name, and may, under a penal statute, be an answer to the charge of having 'wilfully and falsely' assumed that title. We think it will not be out of

our province to add that, if the Medical Act were intended to give any security to the public that Medical Practitioners should be persons of education and science, it has, to a great extent, failed in its object; and that, to be effectual, it requires material amendment, as the offence created by the Act is not that of practising without being registered, for which there is no penalty, but of wilfully and falsely using a name or title implying that the party had been registered—an offence which, considering the interpretation put on the words 'wilfully and falsely' in the cases referred to, is difficult to prove in a court of law."

At the conclusion, the attorney for the prosecution applied for a case for the opinion of the Court of Queen's Bench, which was granted. The ultimate decision of this case will, in all probability, be attended with important results, as it seldom happens that a case of appeal is asked for by the prosecution except some public interest is at stake.

OBITUARY.

WALTER COOPER DENDY, M.R.C.S., Etc.,

Died in London, on the 10th inst., in the 77th year of his age. He was born at or near Horsham, in Sussex, and was descended from a family highly respected and long known and located in the county. After an apprenticeship in the locality, he came to London about the year 1811, and entered as a student at the then united Hospitals of Guy's and St. Thomas's—at the time Sir Astley was in his zenith, and when that school was the most famous in England. He became a Member of the Royal College of Surgeons, London, in 1814. He commenced practice in Stamford-street, and here, in 1827, I first became acquainted with him, in consequence of his attending a very near and dear relative of mine. I well recollect him in those days, and, as a boy, was delighted and charmed with his agreeable manners, his wonderful versatility of knowledge, and his charming powers of conversation. A few years afterwards, when I had become a Medical student, and commenced reporting the Medical Society of London, one of the prominent Fellows of the Society was Mr. Dendy. An admirable speaker, always well informed on the subject on which he spoke, I was never at a loss to follow him. If he was occasionally a little theoretical and imaginative, he was in the main practical. Amongst the speakers at the Society, then by far the most important gathering of the Profession, he was second to none. This is no small praise, when his associates were Clutterbuck, Haslam, Uwins, Leonard Stewart, James Johnson, Whiting, Crisp, and Headland, with many "as worthy sons as they." Discussions at the Society at this period were carried on with a spirit and ability which have never been surpassed. The Westminster Society, though much larger in numbers, was *jejune* and discursive when compared with its Bolt-court rival. The Medico-Chirurgical had not at this time emerged from its chrysalis state, and was contented to allow papers of immense importance, from the ablest men of the day, to drop as it were into oblivion—to be read and *not* discussed, and only to be rescued from their obscurity by being printed at some indefinite time after, in the *Transactions* of the Society. It is lamentable to think, by the obstructive arrangements which prevailed with reference to debating the merits of a paper, how much of the experience of the leading men of the time has been lost! What a valuable mass of information might have been preserved to the Profession had the occasional short statements of the leading Physicians and Surgeons who occasionally said "something" been reported in the journals! The Society became at last a mere "tea-meeting," with the solemnity of a secret reading, as it were, of papers, no doubt of inestimable value, but like the "gems of rarest ray serene," or the "flowers born to blush unseen," were, in almost the strictest sense, lost to the world. The consequence was most disastrous to the Society, at whose meetings scarcely a dozen attended. When it had dwindled to nearly a condition of exhaustion, permission was given to reporters to attend, and to publish the proceedings. Great were the revivifying effects of the air of publicity on the Society. It is not too much to assume that the debates in the Medical Society had some effect on the Council of the Medico-Chirurgical in inducing them to consent to a change in their regulations respecting the admission of the press to their meetings. It is a fact that, whilst the library in Bolt-court was attended by a crowded and admiring auditory, that of the Society I am criticising was a mere "hole-and-corner" assembly, without spirit and without interest. It is due to the memory of Mr. Dendy, and others who were his colleagues, to state that he was one of the first to advocate publicity to the proceedings of the Society in Bolt-court. He was one of the foremost to assist me in my then arduous task of reporting their proceedings. In after years, and even to within three months of his death, the question formed the subject of our conversation on many occasions. In looking back at the early times of reporting for the Medical press, with all its drawbacks, its vicissitudes and difficulties, I must say the evenings in Bolt-court are amongst a few of the "pleasures of memory" associated with the pursuit I followed.

Walter Cooper Dendy was not a mere Surgeon. In days when the Surgeon in general practice was certainly not usually an educated person, he shone conspicuously by his superior acquirements, by his cultivated taste, and his polished manners. He found time, even amidst the toils and struggles all but invariably the early lot of men who engage in our calling, to indulge in his fancy for general literature. Thus, he wrote and published a poem of considerable merit, entitled "Zone;" and "The Philosophy of Mystery," an able and learned treatise on dreams, spectral illusions, and other imperfect manifestations of mind. In this little volume, he advanced some theories which were regarded by hypercritical and shallow thinkers as bordering on Materialism; but the book, taken in its entirety, is one of the most conclusive that could be to prove his belief in a future state. For instance, in speaking of the deaths of little children, their mysterious "forethought," as it were, of their demise, even when those around them had hope of their living—I quote from memory—he says, "In that awful moment when the spirit

> 'Is soon from its cell of clay
> To burst a seraph in the blaze of day.'

who shall say that there is not some communication between the Almighty and the 'cherished ones,' who are called in 'their purity to heaven'?" That Dendy had some peculiar religious views, I know, but his mind was of too grave and reflective a character, too much imbued with enthusiasm, too poetic for him to be a materialist. I mention his literary productions first, not because they are the more meritorious of his contributions, but inasmuch as he prided himself, and justly, upon them. In later life he published a volume under the singular title, "ΨΥΧΗ: a Discourse on the Birth and Pilgrimage of Thought," a metaphysical essay, worthy of being classed amongst the first of such essays on a profound and most fascinating subject. His "Sketches in the Isle of Scilly" are full of truthful fancy; it was followed by other works of singular merit. "The Beautiful Islets of Britane," "The Wild Hebrides," "The Islets of the Channel," and "Legends of the Lintel and the Ley," are the most important. But he was not idle in respect to Medical literature. He was author of a "Practical Treatise on Diseases of the Skin," "Hints on Health and Diseases of the Skin," "The Book of the Nursery," "Portraits of Diseases of the Scalp," "Wonders displayed by the Human Body," "Monograph on the Cerebral Diseases of Children," and "The Varieties of Pock." He contributed largely to the Medical journals, and was the author of some of the most remarkable and interesting of the papers which appeared in the *Psychological Journal*, edited for many years with much ability by Dr. Forbes Winslow. It should be mentioned that he was for a long period Surgeon to the Royal Infirmary for Children in the Waterloo-road, and at this institution he found materials for some of his best Medical works. Dendy was an admirable draughtsman, and illustrated his own works in a manner which elicited admiration from all. His last efforts with his pencil were, I believe, some sketches of the scenes described by the poet Cowper in the neighbourhood of Olney and Weston Underwood. Knowing my early association with these scenes, he kindly brought the sketches to me. Nothing could exceed these in graphic and truthful illustration. His last essay, I think, was "On the Mental Condition of Cowper," that marvellous enigma—the most popular of poets, the simplest and yet one of the profoundest of philosophers—whose life has been written by numerous authors. Was he insane, or was he not? There can be no doubt, I think, that for a time his fine intellect was under a cloud. But it must be remembered that it was a *quæstio vexata*. Hayley, Johnson, Southey, and other eminent men differed in opinion on the subject. Dendy took what appeared to me a sound view of the question. He steered a middle course, and treated the matter from a Medico-Psychological point of view. The essay was originally intended for publication in Winslow's *Quarterly*; but this having ceased to exist, he brought it to me for publication in the *Lancet*. I felt it was not fitted for a Medical journal, and with great regret returned it to him. I hope it may yet see

the light, as I understand it is the intention of his executors to publish a posthumous volume of his writings. Dendy was almost a recluse, even in his earlier days. With the exception of attending the annual dinner of the Medical Society, and occasionally the biennial festival of the Students of Guy's Hospital, he seldom or never appeared at any convivial meetings of the Profession. I believe he never gave a private dinner-party to his friends. When President of the Medical Society he lived at Storey's-gate, in the house that immediately overlooks the Birdcage-walk. He gave the usual Presidential dinner. I was present. The repast was perfect in its way. The fine old china plates, the glasses of all but mediæval age, the wines old and select, gave to the entertainment a charm and originality which I shall not easily forget. But it was characteristic of the man. He "came out" but "once in his life," but he "came out" not like a hermit or recluse, but with all that could delight or astonish his company. As I have said, Dendy was a retiring man, even in his palmy days. He had no amusements out of doors, and this may explain why he had time for his numerous contributions to literature and to Medicine. He retired from practice some years since, and occupied his time in the reading-room of the British Museum. Daily you might see him coming up from Suffolk-street to the Museum, with his spare figure, his small frame, his reflective face, and his grotesque habiliments, his brown greatcoat, and his huge spectacles. Of late there was a certain kind of melancholy about him, which was "sweeter even than pleasure." He met death at the age of 77, after a short illness, with that "calm and decorous fortitude" which he had ever evinced during life. I have but one sentence to add to this memorial to my old friend. He died in Suffolk-street, Haymarket, in the house of a patient of mine. On the morning of the day when these reminiscences were penned, I was requested by Mrs. M—— to view the body of my old friend. One of his executors, an eminent pastor of the Unitarian creed, could not convince himself that Dendy was dead, and positively insisted that he should be examined in his coffin by some Medical gentleman. I obeyed the summons. In the second-floor front room at a house in Suffolk-street, Pall-mall, which he had occupied for years, and had endeared himself to those about him by his gentle manner and his kindness of heart, lay all that was mortal of one of the most accomplished and kind-hearted members of our Profession I had ever known. My friend Dr. Routh had attended Dendy with all kindness and attention and skill during his last illness. My visit to the corpse was unnecessary, but I felt I was not doing wrong in taking a "last sad look" at him I had known intimately for upwards of forty years. J. F. C.

SIR JAMES MURRAY, M.D.

This well-known Physician died last week, at the advanced age of 83. His name is more identified in this country with his "fluid magnesia" than for other claims he had to distinction as a writer or a Physician. But Sir James Murray had such claims. For many years he performed the duties of Inspector of Anatomy for Ireland, with considerable tact and ability. When Lord Anglesea was Lord Lieutenant of Ireland, Murray was his Physician, and was knighted in consequence of his position, and of "eminent services" rendered to his Excellency. He was educated in Dublin, and was formerly in the army. He was ordinary Fellow of some, and honorary Fellow of several learned and scientific societies. He was an able chemist, and devoted most of his time to chemical study. He published, amongst other works, essays on the "Air-Pump," on a "New Method of Restoring Suspended Animation," on "Magnesia," "Specific Gravity," "Atomic Changes," and several articles on magnesia. It is remarkable that these contributions to the Materia Medica and Therapeutics in relation to magnesia were published upwards of sixty years since, and that he should, a quarter of a century after, patent a "fluid magnesia," by which he obtained reputation and a considerable income. Sir James was a good specimen of "a good Irishman"—a thoroughly Celtic face, with a rich brogue, and a fund of humour and anecdote. He was of herculean frame and strength, and up to within a short time of his death maintained his wonted spirits and vigour.

Adulteration of Food and Drugs.—The *Birmingham Gazette* understands that this measure will be re-introduced in the House of Commons at the commencement of the ensuing session by Mr. Muntz, M.P. There will be certain modifications, to disarm the specific opposition which Mr. Muntz encountered in Parliament last session.

MEDICAL NEWS.

Royal College of Surgeons of England.—The following Members of the College, having undergone the necessary examinations for the Fellowship on the 22nd, 23rd, and 24th ult., were reported to have acquitted themselves to the satisfaction of the Court of Examiners, and, at a meeting of the Council, on Thursday, the 14th inst., were admitted Fellows of the College, viz.:—

Butlin, Henry Trentham, L.R.C.P. Lond., Camborne, Cornwall, dip'oma of Membership dated November 12, 1867, student of St. Bartholomew's Hospital.
Hardwicke, Junius, L.K.&Q.C.P. Ireland, Rotherham, June 3, 1844, of the Dublin School.
Higgens, Charles, L.R.C.P. and L.S.A. Lond., Hambledon, Hants, April 21, 1868, of Guy's Hospital.
Oldham, Charles James, L.R.C.P. and L.S.A., Lond., Brighton, January 26, 1870, of Guy's Hospital.
Page, Herbert William, B.A. and M.B. Cantab., Carlisle, November 16 1869, of the London Hospital.
Partridge, Samuel Bowen, L.S.A., of Her Majesty's Indian Army, August 5, 1851, of King's College.
Rendle, Richard, L.S.A., Forest-hill, April 22, 1868, of Guy's Hospital.
Wyman, William Sanderson, M.D. St. Andrews and L.S.A., Putney, April 25, 1862, of St. Thomas's Hospital.

Four candidates, having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their Professional studies for twelve months.

At a special meeting of the Dental Board, on Tuesday, the 12th inst., Mr. Samuel Hamilton Cartwright, of Old Burlington-street, having undergone the necessary examination, was admitted a Licentiate in Dental Surgery, his diploma of Membership bearing date May 7, 1867.

Apothecaries' Hall.—The following gentleman passed his Examination in the Science and Practice of Medicine, and received a Certificate to practise, on Thursday, December 7, 1871:—

Kilner, Walter John, Bury St. Edmunds.

The following gentlemen also on the same day passed their first Professional examination:—

Collier, Nicholas C., King's College.
Edwards, John Ellis, Guy's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Allchin, W. H., M.B. Lond., M.R.C.S., L.S.A.—Medical Registrar to the Westminster Hospital, *vice* Dr. Lee, resigned.
Arnold, Richard Orlando, L.F.P.S., L.M., L.S.A.—Medical Officer for the Second Division of the Cheshan District of the Amersham Union.
Beach, Fletcher, M.R.C.S.E., 1st M.B. Univ. Lond. (late Resident House-Physician to King's College Hospital)—House-Surgeon to the Hospital for Sick Children, 29, Great Ormond-street, W.C.
Cely, Robert Walter, M.R.C.S.E., L.S.A.—Medical Officer to the Infirmary and Workhouse.
Curling, Henry, M.R.C.S.E.—Assistant-Surgeon to the Sussex County Hospital, Brighton, *vice* F. A. Humphry, resigned.
Elliott, A. Bowes, M.R.C.S., late House-Surgeon at Guy's—Resident Surgeon to the Farringdon General Dispensary and Lying-in Charity, Bartlett's-buildings, Holborn.
Humphry, F. A., F.&M.R.C.S.E., and L.S.A.—Surgeon to the Sussex County Hospital, Brighton, *vice* Mr. G. Lowdek, deceased.
Liddard, Thomas, M.R.C.S., L.R.C.P. Lond.—Fifth District Medical Officer for the new district in the north part of the parish of St. Mary Abbott's, Kensington, W.
Shipman, George William, M.R.C.S., L.R.C.P. Lond.—Medical Officer and Public Vaccinator for the Grantham District of the Grantham Union, Lincolnshire, *vice* Charles Ferneley, L.R.C.P. Edin., M.R.C.S. Eng., L.S.A. Lond., resigned.
Slater, John S., M.R.C.S.E., L.S.A.—House-Physician to St. Thomas's Hospital, *vice* E. Cox, resigned.

NAVAL APPOINTMENTS.

Admiralty.—In accordance with the provisions of Her Majesty's Order in Council of February 22, 1870, Sir Alexander Armstrong, M.D., K.C.B., was on December 4 placed on the Retired List of Inspectors-General of Hospitals and Fleets in her Majesty's Fleet. The undermentioned Medical Officers, on the retired list, have been promoted to the honorary rank of Deputy Inspector-General of Hospitals and Fleets in her Majesty's Fleet:—Robert Grahame, M.D., James Vaughan, Charles Deane Steel, Charles Thomas Simpson Kevern, Andrew Murray, and Joseph Henderson, M.D.

BIRTHS.

Dukes.—On November 28, at Rugby, the wife of Clement Dukes, Esq., M.B., B.Sc. Lond., of a daughter.

FENNELL.—On December 12, at New Wandsworth, the wife of Charles John Fennell, Surgeon, of a son.

JONES.—On December 6, at Grange House, Bromley, Kent, the wife of Alfred Orlando Jones, M.D., of a son.

MOORHEAD.—On December 4, at Clifton, the wife of Dr. T. Moorhead, of a daughter.

MARRIAGES.

ALVES—INGLIS.—On December 6, at St. Andrew's Church, Plymouth, Malcolm Arbuthnot Alves, Royal (late Bengal) Engineers, to Julia Jane, eldest daughter of John Inglis, M.D., H.M.'s Indian Army.

COVEY—MORTON.—On November 15, at the Church of St. Edward. Dringhouses, Yorkshire, Edward Rogers Covey, Esq., of Alderton, to Emily, youngest daughter of the late Hugh Morton, M.D., of Newark-on-Trent, Notts.

FRANK—CAMPBELL.—On December 5, at the British Vice-Consulate, Cannes, France, and afterwards at Christ Church, Philip Frank, M.D., F.R.C.P., late Army Medical Staff, to the Lady Agnes Campbell.

GORDON—WAINWRIGHT.—On December 11, at Hornsey Parish Church, Thomas Shepheard Gordon, Esq., Crouch-end, to Kate, sole surviving family of John Wells Wainwright, M.D., Temple, London.

LYONS—SPENCER.—On December 9, at St. George's Church, Hanover-square, Thomas Lyons, Esq., Indian Medical Service, to Martha Eleanor (Pattie), youngest daughter of Mr. Paul Spencer.

MAINOUY—DAVENPORT.—On December 7, at St. James's, Paddington, Ferdinand Beckwith Mainguy, Captain Royal Engineers, to Frances Matilda, younger daughter of James Davenport, M.D., late Bengal Army.

DEATHS.

ATKINSON, JAMES, Assistant-Surgeon, on half-pay, at Cullenswood-terrace, Ranelagh, on November 29, aged 31.

BOXWELL, RICHARD, M.B., T.C. Dublin, L.R.C.S.I., late H.E.I.C.S. (retired list), of Abbeyleix, Queen's Co., on November 28.

BURNETT, MARGARET JANE, second of daughter of the late Sir William Burnett, M.D., K.C.B., Director-General of the Naval Medical Department, at The Treasury, Chichester, on December 12.

COLLINGS, ADOLPHUS, M.D., Surgeon (half-pay) 40th Foot, at Grangehill, Guernsey, on December 1, aged 56.

DAVIDSON, JOHN, Assistant Resident-Physician at Middlesex Hospital, younger son of George Davidson, merchant, Aberdeen, at the Middlesex Hospital, of typhoid fever, on December 5, aged 24.

DRUMMOND, MINNA, the beloved wife of James Drummond, M.D., at 17, Promenade des Anglais, Nice, France, on December 9.

DUKES, ALICE MARY, the wife of Clement Dukes, at Rugby, on December 12, aged 21.

MURRAY, SIR JAMES, M.D., many years Inspector of Anatomy for Ireland, and Physician to the Lord-Lieutenant, 19, Upper Temple-street, Dublin, on December 8.

NALTY, JOHN, M.D. Edin., M.R.C.S. Eng., at 6, Clare-street, Dublin, on December 7, aged 73.

NORTON, JOHN EDWARD, M.D., at Grey Friars, Chester, suddenly, on December 5.

RAINES, CHARLES, M.R.C.S., L.S.A., at Clarence House, Hull (the residence of his brother-in-law, E. C. C. Hart, Esq.,), suddenly, on December 11, aged 21.

SMITH, CAROLINE, wife of Thomas Heckstall Smith, F.R.C.S., of Rowlands, St. Mary Cray, at the residence of her son, Courtney-terrace, Cliftonville, Brighton, on December 8, aged 65.

SPENCER, JOSEPH FROWD, M.R.C.S., formerly of Fonthill Gifford, Wilts, on December 7, at Brompton, in the 90th year of his age.

WALKER, ELIZA, widow of the late Adam Walker, M.D., at the residence of her daughter, Mrs. Tickell, Ravensworth, Cheltenham, on Dec. 10, in her 90th year.

WILLIAMS, CAROLINE ANNE, the wife of John Williams, M.D., of Sudbury, Suffolk, on December 8, aged 31.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

CARNARVONSHIRE AND ANGLESEY INFIRMARY.—House-Surgeon. Must be a registered Medical Practitioner. Applications and testimonials to the Secretary, Infirmary, Bangor, on or before January 2, 1872.

EARLSWOOD ASYLUM.—Assistant Medical Officer. Must be duly qualified and registered. Applications and testimonials to the Secretary, on or before December 18.

EAST SUSSEX, HASTINGS, AND ST. LEONARD'S INFIRMARY.—The appointments of Physician and Assistant-Physician are vacant. The qualifications required are as follows:—Doctor or Bachelor of Medicine of Great Britain or Ireland, or Fellows or Members of the Royal College of Physicians of London, Edinburgh, or Dublin. Applications and testimonials to the Secretary, on or before January 1.

JERSEY GENERAL DISPENSARY.—Medical Officer. Further particulars of the Rev. P. A. Le Feuvre, Oakwalk, Jersey. The election takes place early in January, and the duties will commence on February 1.

MANCHESTER ROYAL INFIRMARY.—Senior House-Surgeon. Medical and Surgical qualifications required. Applications and testimonials to Dr. Reed, on or before December 22.

METROPOLITAN FREE HOSPITAL, DEVONSHIRE-SQUARE, CITY, E.C.—Honorary Surgeon. Must be F.R.C.S., or pledged to become such within twelve months. Applications and testimonials to Mr. G. Croxton, Secretary, on or before December 23.

NUNEATON UNION.—Medical Officer and Public Vaccinator for the Nuneaton District. Candidates are required to possess the qualifications prescribed by the Local Government Board. Applications and testimonials to Mr. John Estlin, Clerk, Nuneaton, on or before December 26. Election on the 27th.

ROYAL SOUTH LONDON DISPENSARY.—Honorary District Surgeon. Apply to Mr. Hentsch, at the Dispensary, St. George's-cross, Lambeth, S.E.

St. PANCRAS AND NORTHERN DISPENSARY.—Resident Medical Officer. Must be qualified in Medicine and Surgery. Applications and testimonials to the Secretary, Mr. S. S. Wigg, 33, Gordon-street, Gordon-square, W.C., on or before December 18.

UNIVERSITY COLLEGE HOSPITAL.—Assistant Obstetric Physician. Applications to Mr. John Robson, B.A., on or before December 18.

WEST BROMWICH DISTRICT HOSPITAL.—House-Surgeon. Medical and Surgical qualifications required. Applications and testimonials to the Hon. Sec., on or before December 16.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1861.

RESIGNATIONS.

Keighley Union.—Dr. Usher has resigned the Bingley District; area 9614; population 12204; salary £50 per annum.

Manchester Township.—Mr. Edmund Manley has resigned the St. Michael's District; salary £170 per annum.

Penistone Union.—Mr. George F. Trotter has resigned the Penistone District; area 17,380; population 4887; salary £21 per annum. Also the Workhouse; salary £30 per annum.

Ripon Union.—Mr. E. Smith has resigned the Third District; area 19,834; population 3269; salary £30 per annum.

St. George-in-the-East Parish.—Mr. Benjamin Baker has resigned the North District; area 108; population 26,000; salary £230 per annum.

Wolverhampton Union.—Mr. H. D. Best has resigned the Sixth District; area 848; population 12,176; salary £77 4s. per annum.

APPOINTMENTS.

Bosmere and Claydon Union.—Edward Beck Hammond, M.R.C.S., L.S.A., to the Claydon District.

Christchurch Union.—James Henry Cartwright, M.R.C.S.E., L.S.A., to the Eastern District.

Shoreditch Parish.—Albert W. Wallis, M.R.C.S.E., L.S.A., to the Brentwood School.

Wem Union.—George Edward Elton Burroughs, M.R.C.S.E., L.S.A., to the Prees District.

West Derby Union.—Wm. Little, L.R.C.P. Edin., L.R.C.S. Edin., to the Workhouse for Sick Poor.

ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.—The next meeting will be held on Saturday, December 16, at 7.30 p.m., at the Scottish Corporation Hall, Crane-court, Fleet-street. A report will be read on the "London Water-supply." W. H. Michael, Esq., barrister-at-law, will deliver an address "On Future Sanitary Legislation."

SIR ALEXANDER ARMSTRONG, M.D., K.C.B.—In accordance with an Order of Council, this gentleman has been placed on the retired list, from the 4th inst., of Inspector-General of Hospitals and Fleets.

DR. H. J. DOMVILLE, C.B., Deputy Inspector-General of Hospitals and Fleets, and Chief Medical Officer of Melville Hospital, will, with the sanction of the Lords of the Admiralty, hold that appointment for another year, and so complete a term of five years' staff employment.

THE SYME TESTIMONIAL.—The Surgical Fellowship intended to be founded in honour of this great Surgeon has already received subscriptions to an amount which will yield about £100 a year.

MR. EDWARD COCK.—This deservedly popular member of the Court of Examiners of the Royal College of Surgeons, in resigning his seat at that Board, at a meeting of the Council on the 14th inst., requested he might not be nominated for re-election. Mr. Cock, who has done good suit and service to the College, was elected a member of the Council in 1856; of the Court of Examiners in 1867, with Sir William Fergusson and the late Mr. Solly; and in 1869 was elected President of the College.

INSPECTOR-GENERAL F. W. INNES, M.D., C.B., has been appointed Principal Medical Officer at Netley, *vice* Inspector-General Beatson, M.D.

SCARLET fever in a somewhat virulent form has appeared at Himbleton.

AN Infirmary and Dispensary is being erected in High-street, Shoreditch, and is an extension of the Workhouse. Accommodation is provided for 150 beds.

SICKNESS AMONG THE POOR.—It is stated that the Workhouse at Newington, which is used only for the reception of sick paupers, was last week so full that forty persons had to sleep on the floors.

WILLIAM HEREFORD, a gentleman possessed of extensive property in Southwark, was fined on Monday, by the Southwark police magistrate, three guineas and costs, for refusing and neglecting to perform certain sanitary works ordered by the authorities at 26, Charles-street, St. John's, where fifty girls were employed at staymaking, and the place in a very unhealthy state.

It is telegraphed from India that a Medical committee reports that the Delhi Camp may safely be formed again. No new cases of cholera have occurred.

Cholera has appeared in Lucknow. Though very fatal to natives, only one or two cases among Europeans have hitherto been recorded.

The last quarterly report of the Hospital for Consumption, Brompton, states that the number of patients admitted since August 3 was 276; discharged (many greatly benefited), 239; died, 25; new out-patient cases, 3041.

Professor Longet and Baron Paul Dubois.—During the last week two funereal ceremonies of great interest have occupied the attention of the Profession in Paris. The obsequies of Professor Longet, who died during the siege, were celebrated. He had scarcely reached his 60th year, and during the last ten years he had frequently, on account of ill-health, been obliged to suspend his labours, and his courses on Physiology in consequence excited much less attention than they deserved. His great work on Physiology, produced with an immense amount of painstaking labour, that rendered its production very irregular, and its printer almost desperate, will ever remain a noble monument of which his country may well be proud. Baron Paul Dubois was in his 76th year, but during the last ten years his mental powers have gradually become extinct; and it is remarkable that while, when they were in their vigour, he was dyspeptic and delicate in health, after they had become extinguished his frame entered on the vigorous enjoyment of all its functions. His great success as a clinical teacher, and his extensive private practice, enabled him greatly to influence the progress of Obstetrical Medicine in France, a whole school of now distinguished accoucheurs having served under him as *chefs de clinique*.

Waxed Paper as a Dressing.—A correspondent of the *Deutsche Klinik* (November 18) states that, at the St. Hedwig's Hospital, this has been found of great utility in covering over applications which it is desired to keep in a moist state. It is therefore especially indicated as a covering to wet compresses in suppurating wounds. It is easily adapted to all parts of the body, lying lightly and smoothly. Owing to its lightness, it is preferable to gutta-percha textures as a covering for cataplasms when applied to the abdomen or chest. It is very cheap, and its durability, considering its light texture, is considerable. It may be wetted and dried again, so as to serve for a week. It is sold by C. Geffer, Surgical instrument maker, 2, Schiffbauerdamm, Berlin.

The Artesian Well at Rochefort.—An artesian well, at the Marine Hospital, at Rochefert, has been sunk to the depth of 846 metres, the depth of the wells at Grenelle and Passy not exceeding 700 metres. The temperature of the water is 41° C., and agrees pretty well with the law which attributes 1° for each thirty-three metres of depth. While the waters derived from other artesian wells contain but little of saline matters, that of Rochefort contains a great deal, and, among others, the sulphates of soda and lime, chloride of sodium, iron, manganese, etc. The water is quite unfit for either drinking or washing. A curious circumstance has been observed during the boring—namely, that the tubes became magnetised during the process of perforation, and, when separated, constituted so many magneta, capable of communicating magnetic properties to iron.—*Gazette Médicale*, December 9.

The disinfecting power of carbolic acid seems yet to be dubious, and certainly not so great as to be relied upon. Dr. H. J. von Ankum inserted a paper in *Morandschrift voor Natuur-wetenschappen* stating the following facts:—Atmospheric air, to which are added the vapours emanating from carbolic acid, is unable to hinder the development of lower organisms in water with hay, in milk, and in urine. He put those substances under a glass bell, with an opening at the upper side, and surrounded by little cups filled with carbolic acid. All was placed in a ventilating closet, and the arrangement was such that the air that passed the above-named substances was mixed, if not saturated, with the vapours of carbolic acid. After the lapse of a little time, the development of lower organisms took place just as if the fluids had been exposed to the free air. Von Ankum made use of pure and impure carbolic acid, and only once he saw, in using the impure strong-smelling carbolic acid, the formation of those organisms retarded and not take place in so many forms. He concludes, from his experiments, that no disinfecting action can be expected from the vapours of carbolic acid when they are mixed with the atmospheric air in such quantity that the respirations can take place in it without damage.

Midwives at Kensington.—The Board of Guardians of this Union have, as we indicated some weeks since, resolved to supply midwives, instead of Medical officers, at a fee of five shillings for each confinement. If a case be urgent, a Medical Practitioner is to be called in—a wise and safe proviso.

Dr. Hardwicke, at an inquest on the body of a woman who was burned to death in a fire which destroyed a house in Peter and Key-court, Cow-cross, said it was a great pity that the whole of the infamous nest of fever, etc., in Cow-cross had not been burned down—the houses were a disgrace to the parish. Verdict, "Accidental death."

A dust contractor employed by the Camberwell Vestry has been fined £100 for neglecting to fulfil the obligations of his contract. If other Boards would show the same determination in insisting on the performance by dust contractors of the duties they undertake, there would be fewer complaints, and the public health would be more satisfactory.

The Factory Inspectors, in consequence of the extension of the system of Government inspection from factories to workshops, have written to the Home Secretary, complaining that the new duties imposed upon them are derogatory to their dignity, and that their present pay is insufficient for the duties required of them.

Health of Scotland.—The deaths of 2611 persons were recorded in the eight principal towns during November, of whom 1302 were males and 1309 females. Allowing for increase of population, this number is 32 above the average number for the month during the last ten years. A comparison of the deaths registered in the eight principal towns shows that during November the annual rate of mortality was 16 per thousand persons in Perth, 23 in Leith, 26 in Aberdeen, 29 in Edinburgh, 30 in Glasgow and in Paisley, 31 in Greenock, and 33 in Dundee. Of the 2611 deaths registered, 1064, or 41 per cent., were of children under 5 years of age. In Perth, 28 per cent. of the persons who died were under 5 years of age; in Edinburgh, 34; in Paisley, 35; in Dundee, 37; in Leith, 38; in Aberdeen, 41; in Glasgow, 44; and in Greenock, 51 per cent. The zymotic (epidemic and contagious) class of diseases proved fatal to 721 persons, constituting 27·6 per cent. of the mortality. This rate was exceeded in each of the following towns: in Aberdeen from the prevalence and fatality of measles, in Edinburgh and in Greenock from that of scarlatina, in Dundee from small-pox, and in Leith from small-pox and scarlatina combined. Small-pox continues greatly on the increase, and is now the most fatal of the epidemics. In the eight towns 157 deaths, or 6·0 per cent. of the mortality were ascribed to this disease. In Dundee 26·0 per cent., in Leith 21·3 per cent., and in Edinburgh 6·3 per cent. of the deaths arose from that disease. Scarlatina caused 136 deaths, or 5·3 per cent. of the mortality. In Leith 9·0, in Edinburgh 10·9, and in Greenock 19·2 per cent. of the deaths were from this disease. Fever caused 129 deaths, or 4·9 per cent. of the mortality. Of these, 54 were ascribed to typhus, 36 to enteric, 32 to relapsing, 2 to simple continued, and 5 to infantile remittent fever.

Composition and Quality of the Metropolitan Waters in November, 1871.—The following are Dr. Letheby's returns to the Association of Medical Officers of Health:—

Names of Water Companies.	Total Solid Matter per Gallon.	Oxygen required by Organic Matter, &c.	Nitrogen.		Hardness.	
			As Nitrates &c.	As Ammonia.	Before Boiling.	After Boiling.
Thames Water Companies.	Grains.	Grains.	Grains.	Grains.	Degs.	Degs.
Grand Junction .	—	—	—	—	—	—
West Middlesex .	18·97	0·018	0·139	0·000	15·0	3·5
Southwark & Vauxhall . . .	20·33	0·071	0·112	0·005	15·8	3·7
Chelsea . . .	21·17	0·076	0·129	0·005	16·1	3·8
Lambeth . . .	20·33	0·075	0·131	0·002	15·8	3·5
Other Companies.						
Kent . . .	27·87	0·013	0·242	0·000	20·1	5·8
New River . .	20·77	0·026	0·140	0·001	16·0	3·7
East London . .	21·79	0·053	0·119	0·003	16·2	4·2

Note.—The amount of oxygen required to oxidise the organic matter, nitrites, etc., is determined by a standard solution of permanganate of potash acting for three hours; and in the case of the metropolitan waters the quantity of organic matter is about eight times the amount of oxygen required by it.

The water was found to be clear and nearly colourless in all cases.

The average quantity of water supplied daily to the metropolis during the preceding month was, according to the returns of the Water Companies to the Association of Medical Officers of Health, 105,645,974 gallons; and the number of houses supplied was 431,485. This is at the rate of 32·4 gals. per head of the population daily.

Lord Leigh laid, on the 4th inst., with Masonic honours, the foundation-stone of the new wing to the Queen's Hospital, Birmingham. His Lordship made an admirable and effective speech on the occasion. There were great demonstrations of rejoicing. A luncheon at the Great Western Hotel followed the ceremony, and in the evening there was a *soirée* at the Town Hall, presided over by the Mayor. Of the £6000 subscribed, £4000 has been contributed by working-men.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

F. A. B., Reading.—In the volumes of the *Medical Times* for 1849, 1850, and 1851.

LL.D., Highgate.—Apply to the Professor. We should think they would be; yet not, perhaps, till they have been delivered again and revised.

Emigrant.—1. In 1862. 2. The "cottage Hospital system for insane patients," in Australia, is said to have been introduced by the late Dr. Bowie. 3. Clinical lectures were not at the early part of the present year provided for the students at the Melbourne Hospital; we are not aware if they have been subsequently provided.

COMMUNICATIONS have been received from—

Mr. R. E. Power; Dr. Whitmore; Mr. P. Robertson; Mr. Howse; Dr. Dicken; Dr. Allchin; Mr. S. Winterbottom; Mr. Carson; Mr. Willett; Dr. J. M. Minor; Rev. S. Allen Sbone; Mr. T. Piper; Mr. Clement Dukes; Mr. Felce; Dr. Brakenridge; Mr. J. Sanders; Mr. C. S. Jeaffreson; Mr. J. S. Slater; Mr. S. Green; Mr. Stephen Darby; Dr. C. T. Williams; Dr. Francis Hogg; Mr. J. Beswick Perrin; Dr. Parkes; Dr. Roberts; Mr. Walsh; Mr. G. W. Shipman; Dr. Vinen; Dr. Stevenson; Mr. Bedford; Mr. C. H. Johnson; Mr. R. W. Tibbits.

BOOKS RECEIVED—

Tanner's Memoranda on Poisons—Sure Methods of Attaining a Long and Healthful Life, with the Means of Correcting a Bad Constitution, translated from the Italian of Lewis Cornaro—Gamgee on Fractures of the Limbs—Blackwood's Desk Diary for 1872—Annual Report of the Borough of Salford.

PERIODICALS AND NEWSPAPERS RECEIVED—

Everybody's Year-Book, 1872—Nature—Pharmaceutical Journal—Edinburgh Daily Review—The Salopian—North British Daily Mail.

APPOINTMENTS FOR THE WEEK.

December 16. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; King's, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Association of Medical Officers of Health, 7½ p.m. A report will be read "On the London Water Supply." Mr. W. H. Michael, "On Future Sanitary Legislation."

18. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Medical Society of London, 8 p.m. Meeting. Mr. Thomas Bryant will exhibit some Drawings, and make some Remarks, illustrating the Process of Cell-growth in the Operation of Skin-grafting. Dr. Ogle (of Derby), "Preventive Medicine or Medical Reform—not Parliamentary, but Particular and Individual."

19. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Pathological Society, 8 p.m. The following Specimens will be exhibited:—Mr. Lawson, "Case of Blood-cyst" (sequel reported in vol. xviii. of *Trans.*). Mr. Spencer Watson, "Ulcer of Eyelid," removed by Dr. Swift Walker. Mr. A. Norton, "Ulceration of Trachea." Dr. Thorowgood, "Large Salivary Calculus removed by Operation." Dr. Southey, "Caseous Degenerative Disease of Supra-renal Capsules." Dr. Peacock, "Plugging of Middle Cerebral Artery." Dr. Payne, "Hæmatoma of Muscle." Mr. Goodhart, "Casts from the Intestine."

20. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 2 p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

21. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; West London, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

22. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

VITAL STATISTICS OF LONDON.

Week ending Saturday, December 9, 1871.

BIRTHS.

Births of Boys, 1093; Girls, 1033; Total, 2126.
Average of 10 corresponding weeks, 1861-70, 1969·2.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	927	929	1856
Average of the ten years 1861-70	776·8	767·1	1543·9
Average corrected to increased population	...	...	1698
Deaths of people aged 90 and upwards.	...	...	...

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561189	6	7	5	...	15	3	7	5	2
North ...	751668	50	31	8	2	22	1	11	1	2
Central ...	333887	4	3	4	...	9	...	2	1	3
East	638928	23	16	4	2	11	1	8	1	6
South	966132	21	24	13	6	28	1	7	2	1
Total	3251804	104	81	34	10	85	6	35	10	14

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	30·047 in.
Mean temperature	29·8°
Highest point of thermometer	39·7°
Lowest point of thermometer	18·6°
Mean dew-point temperature	24·9°
General direction of wind	Northerly.
Whole amount of rain in the week	0·04 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, December 9, 1871, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1871.*	Persons to an Acre. (1871.)	Births Registered during the week ending Dec. 9.	Deaths Registered during the week ending Dec. 9.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3263872	41·8	2126	1856	39·7	18·6	29·8	−1·22	0·04	0·10
Portsmouth ...	113450	11·9	70	53	40·8	21·2	30·7	−0·72	0·00	0·00
Norwich	80533	10·8	47	56	40·0	9·0	27·9	−2·28	0·25	0·63
Bristol	183298	39·1	112	104	...	...	...	...	...	...
Wolverhampton ...	68476	20·2	51	73	38·6	17·5	29·6	−1·33	0·09	0·23
Birmingham ...	344980	44·1	253	166	40·2	21·8	31·8	−0·11	0·04	0·10
Leicester	95882	30·0	62	62	37·5	17·7	29·7	−1·28	0·02	0·05
Nottingham ...	86929	43·6	48	55	39·4	16·6	30·2	−1·00	0·04	0·10
Liverpool	494649	96·8	328	291	40·0	22·9	33·9	+1·06	0·08	0·20
Manchester ...	356099	79·4	234	259	38·0	17·0	27·7	−2·39	0·02	0·05
Salford	125422	34·3	74	93	41·7	17·4	29·6	−1·33	0·00	0·00
Bradford	146987	22·3	102	80	42·5	23·7	33·7	+0·95	0·04	0·10
Leeds	260657	12·1	222	127	40·0	23·0	34·4	+1·33	0·09	0·23
Sheffield	241507	10·6	200	158	40·0	17·0	33·0	+0·72	0·01	0·03
Hull	122266	34·3	92	60	...	...	...	...	...	...
Sunderland ...	98797	29·9	104	68	...	...	...	...	...	...
Newcastle-on-Tyne	128677	24·1	86	82	39·0	26·0	33·2	+0·67	1·05	2·67
Edinburgh	201728	45·6	121	125	40·0	24·0	32·3	+0·17	0·00	0·00
Glasgow	479227	94·7	344	319	...	...	...	...	...	...
Dublin (City, etc.)	310565	31·9	157	184	41·5	23·5	33·5	+0·81	0·00	0·00
Total of 20 Towns in United Kingd'm	7204001	33·8	4833	4271	42·5	9·0	31·3	−0·39	0·11	0·28

At the Royal Observatory, Greenwich, the mean reading of the barometer in the week was 30·05 in. The highest was 30·33 in. on Friday at noon, and the lowest 29·87 in. on Sunday morning.

* The figures in this column are the unrevised numbers enumerated in April last, raised to the middle of the year by adding 1-40th of the rate of increase which prevailed between 1861 and 1871. As the population of Dublin and its suburbs showed a decline between the Censuses of 1861 and 1871, the enumerated number in April last has been inserted for that city, the population being assumed to be now stationary.

ORIGINAL LECTURES.

LECTURES ON EXPERIMENTAL AND PRACTICAL MEDICINE.

By BENJAMIN W. RICHARDSON, M.D., F.R.S.

ON THE SCIENCE AND ART OF EMBALMING THE DEAD.

Lecture I.

(*Continued from page* 702.)

The Origin of the Art and the Practice.

The first notice we have of the art of embalming the dead comes from the Egyptians, and we are not only well informed of the methods they pursued but are rendered cognisant of the results they obtained, by the specimens of preserved bodies which they have left us. From their time the practice has proceeded with certain modifications of detail, which until lately have been unimportant. On the whole we may divide the practice into three parts:—

1. Into embalming proper, by the introduction into the body of certain odorous essences or antiseptics, aided by after-immersion in saline solutions.

2. Into preservation by simple extraction of water from the tissues—desiccation.

3. Into preserving by the injection of preservative solutions into the bloodvessels.

The first of these lines of practice includes the true Egyptian and Græco-Egyptian process of preservation, and it is most carefully retained for us by the Father of History. Herodotus, travelling through Egypt, was struck by nothing more than the divisions of labour in learned work. The Medical fraternity he discovered divided into almost as many specialities as there were parts of the body; a fact to his mind—instructed as it must have been in the harmony and unity of natural phenomena taught by the higher school of philosophy in Greece—presenting a singular anomaly. Amongst other specialists he found the embalmers, a class hybrid between Medicine and Divinity, making a certain profession of both, yet hardly belonging to either. These professors of the art embalmed somewhat differently, according to the wealth of the embalmed and the fee of the embalmer. They were legally appointed to the exercise of their profession, and when a dead body was brought to them, they exhibited to the friends of the deceased different models highly finished in wood. The most perfect of these they held to resemble one whom the *Pater Historiæ* did not think it religious to name—this was the most expensive model; a second was of less price, and inferior in point of execution; and a third was meaner still. They then inquired after which model the deceased should be represented, and when the price was determined on the relations retired, and the embalmers proceeded with their task. In the most perfect specimens of their art, they drew the brain through the nostrils, partly with a piece of crooked iron and partly by the infusion of drugs; they then, with an Ethiopian stone (fact for Darwinians), made an incision in the side, through which they extracted the intestines; these they cleansed thoroughly, washing them with palm wine, and afterwards covering them with pounded aromatics. They next filled the body with powder of pure myrrh, cassia, and other perfumes, except frankincense. Having sewn up the body, it was covered with *natrum* for the space of seventy days, which time they might not exceed. At the end of this period the body was washed, closely wrapped in bandages of cotton dipped in a gum which the Egyptians use as glue, and returned to the relations, who enclosed it in a case of wood made to resemble a human figure, and placed it against the wall in the repository of their dead.

The above was the most costly way of embalming. For such as chose the middle mode, from a desire of avoiding expense, the embalmers first filled syringes with cedar oil, which they injected into the body per anum, without making any incision or removing the viscera; they then closed the apertures of the body and laid it in brine the specified number of days, on the last of which days they removed the cedar oil which they had previously injected, and with it—such was the strength of it, as they thought—the viscera also, in solution; at the same time the *natrum* had dissolved the flesh, so that there was nothing left but the skin and the bones. They then gave back the body without any further operation to the friends who owned it. The third mode of embalming, which was used for such as had still scantier means, was as follows:—After washing the inside with *syrmæa* the embalmers salted the body for seventy days, and returned it to those who owned it.

Between four and five hundred years after Herodotus, Diodorus Siculus, writing on the same subject, shows how little the art had changed since the time of the *Pater*. Those, said he, who have the care of ordering the body are such as have been taught the art by their ancestors. These, showing to the kindred of the deceased an estimate of expenses of each kind of burial, asked after what manner the body should be prepared, and when the terms were agreed upon the body was delivered over to them, and they thus proceeded. First, he who bore the name of *scribe*, laying the body upon the ground, marked upon the flank on the left side how much was to be cut away. Then he who was called the cutter or dissector, with an Ethiopic stone cut away as much of the flesh as the law commanded, and presently ran off as fast as his legs would carry him; those who were present pursuing him, casting stones at him and cursing him, thereby turning all the execrations which were due to his office on him: for whosoever offered violence, wounds, or any kind of injury to a body of the same nature with himself, they thought worthy of hatred; but those who were called the embalmers they esteemed worthy of honour and respect, for they were familiar with the priests, and went into the temples as holy men, without any prohibition. So soon, then, as one of these came to embalm the dissected body, he thrust his hand through the wound and drew out all the viscera except the heart and kidneys, after which another operator washed and cleansed the viscera with wine made of palms and of substances of aromatic odour. Lastly, having washed the body, the embalmers anointed it with oil of cedar (or cedria) and other aromatics for about thirty days, and afterwards treated it with myrrh, cinnamon, and such-like matters, which had not only power to preserve it a long time, but to give it a sweet smell; then they delivered it to the kindred in such manner that every part remained whole and entire, and no part of it changed, but the shape and beauty of the face just as it was before death, so that it could be known; even the hairs of the eyelids and eyebrows remaining as they were at first. By this means many of the Egyptians, continues Diodorus, keeping the dead bodies of their ancestors in magnificent houses, see so perfectly the true visage and countenance of those that died many ages before they themselves were born, that in viewing the proportions of every one of them and the lineaments of their faces, they take as much delight as if the dead were still living among them.

We gather from these histories that the Egyptian method of embalming consisted really of eviscerating, of employing aromatic preservatives, and of exposure of the body to a saline solution—in plain English, pickling. It has been argued by some authorities that the exposure of the body to the saline substance was the first part of the process, and the filling of the cavities with aromatics the last; but the whole argument, beyond what is stated by Herodotus and Diodorus, is merely speculative. It seems clear that the Egyptians used an aromatic powder like to the specimen now before us—a mixture of myrrh and cassia—a strongly preservative compound; and it also seems clear that they used the oil of cedar, and that sometimes they injected this oil into the cavities. The saline solution they employed does not appear to have been saltpetre, but either chloride of sodium (culinary salt), or a mixture of that salt with soda. The saline substance taken by Mr. Pettigrew from a Græco-Egyptian mummy, and chemically examined by the late Dr. Ure, proved to be composed simply of common salt. It is clear that in some instances—instances, I presume, where the embalmer received his highest fee—the description by Herodotus does not supply the details of everything that was carried out by the operator, for we find, in the actual mummies still remaining, the most extensive and skilful bandaging, and also evidence of the employment of bituminous substances—asphaltum and pissasphaltum. The former was a pure bitumen, called in later centuries *bitumen Judaicum* (Jew's pitch), while the latter was a mixture of Jew's pitch and common black pitch. To these was probably added the oil or essence of some aromatic, such as cedar. In some mummies this bituminous matter has been found in the cavity of the skull and in the ventral cavity; in other specimens the whole body had clearly been immersed in the bitumen before it was bandaged. The bandaging was made with light but rather coarse cloth, somewhat resembling canvas, and was carried apparently from the lower limbs to the upper part of the body, including the head itself, and back again, in layers, several times.

In the most costly specimens, gilding of the surface of the

face and of other parts of the body was practised, and with such perfection that it has been retained in good preservation to the present day.

The results secured by the embalmers of Egypt in the ancient times, however crude they may seem, were good when the highest development of the art was practised by them. This is proved by the specimens that have come down to us. My good and distinguished friend George Cruikshank, who to-day honours us with his company, has brought for us to look at the first-proof of a drawing he took of the face of a Græco-Egyptian unrolled by Mr. Pettigrew at the Charing-cross Hospital, on April 6, 1833. Mr. Cruikshank says that the features of this preserved man, preserved over 2000 years, were so perfect, that there was no difficulty in the task of making an accurate representation of them. The soles of the feet were quite soft, and yielded readily to the pressure of the fingers, while, at the same time, they showed elasticity of structure. The face in this case had been gilded, as had also the upper surfaces of the feet, the thighs, abdomen, and chest. The full account of this mummy will be found in Mr. Pettigrew's admirable work on the "History of Egyptian Mummies": suffice it only to add now, on the authority of our friend, that the immortal Græco-Egyptian, embalmed and gilded regardless of the embalmer's highest fee, and lying over two thousand years in useless preservation, passed speedily in this commercial age into a means of affording quick returns on small profits. The last time Mr. Cruikshank met his antique friend, who gave him so strange a sitting, the said antique was enshrined in Seven Dials for the sake of being seen for the sum of one penny per visitor.

> "Imperious Cæsar, dead and turned to clay,
> Might stop a hole to keep the wind away."

But our friend's antique out-Cæsar's Cæsar.

The term embalming is applied to the Egyptian art of preserving the dead because preservative balsam or balm was used in the process—*baal-samum*, prince of oils. Much speculation has been offered as to the kind of balm used by the Egyptians, and Prosper Albinus, learned in all such matters, describes with infinite care the plant yielding the balsam, the mode of obtaining it by incision of the branches (called *opobalsamum*), and the balm itself. The fluid was whitish at first and turbid, of a strong pungent smell, like turpentine, but much sweeter and more fragrant, and of a bitter, acid, astringent taste; on being kept it became thin, limpid, light-greenish, and then of golden yellow; after which it again became thick, like turpentine, and lost much of its fragrance. Its smell resembled that of citrons, or rather a mixture of rosemary and sage-flowers. The use of this balsam was, I conclude, confined to the highest class of embalmments, and it was probably mixed with the other aromatics with which the cavities of the body were filled. Bodies thus prepared retained longest their natural condition of structure and feature.

The viscera removed from the body by the Egyptian embalmer were placed in a separate vessel, and, with a sort of funeral prayer, addressed to the "sun and all the gods givers of life," were cast into the Nile.

Such in brief was the Egyptian method of embalming, and, with a few modifications of detail, their method was copied by all the neighbouring nations. The Jews introduced aloes into their preparations, and some other changes from the primitive plan were carried out; but on these I need not dwell.

One marked difference of mode does, however, remain to be told. Herodotus records that the Ethiops *desiccated* the bodies of their dead, painted and dried the bodies to represent life, and, finally, enshrined them in columns of transparent solid substance, so that they could be seen by the living. For one year the dead man, thus crystallised, was kept in the house of his friends, after which time he was removed, and was set up in the town where he had lived. What the nature of the transparent substance used to envelope the dead might have been is not known. It has been assumed to have been glass; it has been assumed to have been amber, or a fossil crystal.

We travel from these early times through many centuries, never historically to lose sight of the art of preserving the dead by one or other of the methods named. Camerarius, the author of that quaintest of quaint old books, "The Historical Meditations," tells us that brass was considered to be a preservative of the dead, and that on this belief rests the custom of using brass in the coffins that receive the dead. He, too, quoting from Gyrald de Cambrea, affirms that people in the Isle of Arran will not putrefy after death, so that the bodies of the Arrans are naturally preserved. Further, he tells us, on the authority of Peter Martyr, that the Spaniards found at Comagna, in the New World, a chamber of a cacique full of the dried dead bodies of his forefathers.

The statement by Peter Martyr is sustained, in respect to the inhabitants of Peru, by Garcilasso de la Vega, who, however, described a process of preservation different from desiccation. The Peruvians, he says, embalmed the bodies of their kings by burying the corpses in snow, to dry them; after which they applied to the bodies a kind of bitumen, which kept them in such entirety, they seemed as if they had been alive. The same people of Peru have continued the practice of preservation, principally by desiccation, until a late day, the bodies of the dead being placed in sand and exposed to the heat of the sun. These bodies have commonly, when they are unearthed, a crouched sitting position; they are little more than skeletons covered with dried skin.

Pettigrew, quoting from Glass's "History of the Canary Islands," takes from a translation of an ancient Spanish manuscript an account of the manner in which the people of the Canaries preserved their dead. They carried the dead body in a case, stretched it out on a flat stone, opened it, and took out the bowels; then twice a day they washed the porous parts of the body—viz., behind the armpits, behind the ears, the groin, between the fingers, and the neck with cold water. After sufficient washing, they anointed those parts with sheep's butter, and sprinkled them with a powder made of the dust of decayed pine trees, and a sort of brushwood which the Spaniards called *bressos*, together with the powder of pumice-stone; then they let the body remain until it was perfectly dry, when the relatives came and swathed it in dressed goat-skins, girding all tight with thongs of leather. The body was finally placed in a cave. In some cases amongst the Guanches, the cavities of the body, after being washed with salt water, were made to receive aromatic substances, and the whole body was then dried in the sun or in air artificially heated. The same authority (Pettigrew) records that at Palermo, at the Convent of the Capuchins, the bodies of the monks were all preserved, the skin and flesh, by some process of putrefaction, being rendered quite hard, so as to resist decay. These bodies, habited in the clothes they usually wore, were preserved in the standing posture. In Burmah the priests of the highest orders are, I learn, still subjected to a peculiar process of embalming. The plan is to eviscerate, to fill the cavities with aromatic spices and honey, and afterwards to coat the whole external surface with a layer of vegetable wax, on which gold-leaf is laid. Another practice by these same people related by Pettigrew, on the authority of Captain Coke, a practice of thrusting hollow bamboo canes from the soles of the feet into the body, and of injecting preservative fluids through these tubes, is now unknown.

The methods of preserving the dead I have immediately sketched have been limited to particular communities. The all but universal method that prevailed for centuries was, practically, the Egyptian. By this method for two thousand years the great potentates of the earth were held in a little longer suspension against nature, the mode of procedure passing down by tradition, and known but to a few practitioners of the art. Such modifications as really occurred in the art are quickly related. Lewis de Bils, in 1750, proposed to embalm without evisceration of the body. After him, Gabriel Clauderus, in 1769, introduced the plan of injecting into the cavities of the body what he called his "balsamic spirit," which consisted of one pound of salt of tartar, half a pound of sal-ammoniac, and six pounds of water. Into this same solution he also immersed the whole body, and allowed it remain immersed eight weeks; after which he dried it in the sun or in heated air. Some time after Clauderus, it became the practice to make incisions into the bodies of the dead that were to be preserved, and to insert into the incised parts tincture of myrrh or other similar antiseptic substance. Lastly, there came into operation an improved covering for the embalmed—a cere-cloth coated with wax, oil, and aromatic preservatives. The whole process, as it was carried out a little more than a century ago, is described in the following directions by one of the ablest Surgeons England has ever produced—I mean Benjamin Gooch, of Norwich; and he is supported almost entirely by the great authority of the last century in class-book Surgery—Benjamin Bell, of Edinburgh.

"After evisceration," says Gooch, "as has been directed in opening a dead body, and continuing the incision farther upwards—even into the mouth, and, if practicable, without cutting the skin of the neck—all the cavities are to be well cleansed, and the humidity sucked up with sponges, then washed with tinctura myrrhæ, and filled with *a species* compounded of fragrant herbs, aromatic drugs,

and gums reduced to powder, not very fine, first restoring the heart to its former residence, after having opened its ventricles, cleansed and washed them with the tincture, stuffed them with *the species*, and sewed them up; and then the cavities are to be stitched very close with the glover's or spiral suture. Large and deep incisions are also to be made in all the most fleshy parts, cleaning and washing them with the tincture in the same manner, filling them with the antiseptic *species*, and stitching them up. Then the head, trunk, and limbs are to be perfectly well covered with cere-cloth; putting a piece under the chin, to be secured by sewing on the top of the head; after having well adjusted the cap of the skull, sewed the scalp together, and cleaned the mouth, as has been directed for the other parts, and putting in some of *the species*. The cere-cloth is to be prepared with a composition made of wax, resin, storax, and painter's drying oil S.A. After the application of the cere-cloth with great care and exactness, cut into suitable pieces, according to the respective parts, and closing them well everywhere, the face, being close-shaved, is to be covered with some of the above composition, melted and laid on with a brush of a proper degree of heat, and of a moderate thickness—and it may have a faint flesh colour given to it with vermilion; and when it has grown cold and stiff upon this part, it may be lightly struck over with hard varnish—or this varnish, applied thick, may here serve the purpose alone. A cap is to be well adapted to the head, falling down upon the neck, and to be sewed under the chin, making a few circular turns about the neck with a roller of a fit breadth. All the rest of the corpse is to be enclosed in a sheet, to be artfully cut, and sewed on very close and smooth with the finest tape, over which an appropriate dress is to be put, as the relations or friends think fit to direct and appoint, and then laid into a coffin, which should be in readiness; but when it is some great personage, who is to lie in state for public view before the funeral rites are solemnised, the dress must be appropriate to his dignity and character. The brain and other viscera are to be put with some of *the species* into a leaden box. Sometimes the heart, prepared as has been directed, to preserve it from putrefaction, is deposited in an urn by itself."

With Gooch and Bell, the ancient process of preserving the dead by embalming proper ceased to be. We reach now to William Hunter, who perceived a way of preservation by injection of the bloodvessels. Hereupon a new era was developed, to which I propose to direct attention in another lecture—a lecture that shall bring the practice from his—William Hunter's—to the latest of our own time.

CLINICAL
LECTURES ON OPHTHALMOLOGY,

DELIVERED AT

St. Thomas's Hospital,

By R. LIEBREICH,
Ophthalmic Surgeon and Lecturer to the Hospital.

ON THE TREATMENT AND THE ORIGIN OF PURULENT OPHTHALMIA IN NEW-BORN CHILDREN.

Gentlemen,—You have had the opportunity of observing among the out-patients a series of cases of purulent ophthalmia in new-born children. Several questions have been put to me on the nature of this disease and its treatment: therefore it would be useful to go more explicitly into the subject. Every Practitioner ought to thoroughly understand the principles upon which this disease is to be treated. I am sorry to observe that in England, as well as in Germany and France, old prejudices in regard to the treatment of this disease have for a long time been established in the mind of the public, and have exercised a most pernicious influence. Mothers, grandmothers, nurses, and midwives, and, unfortunately, even Medical men, concurrently destroy by injudicious treatment many eyes which could be saved with ease and certainty.

For, Gentlemen, this is not a disease which is amenable to treatment only up to a certain degree, and which may lead to unfavourable results even under the most rational treatment; but, on the contrary, it is an affection which, even in its worst form, is always perfectly curable.

What, now, is this treatment? It consists, first, in careful cleansing; secondly, in the local application of cold; and, thirdly, in cauterisations with mitigated nitrate of silver (one part of nitrate of silver and two parts of nitrate of potassium fused together). Allow me now to speak of this in a somewhat elementary and detailed manner. As regards the cleansing, it is above all necessary to explain to the attendants the importance of it, for, ordinarily, the fear of injuring the child prevents them from properly opening its eyes in order to remove the secretion. I do not recommend syringes, so generally used, for cleansing—first, because they are dangerous to the attendants, who, in using them, may easily have some of the contagious matter spattered into their eyes; secondly, because by this method the secretion is not completely removed, even after pouring much water over the child. A fine sponge, if you can rely upon it being kept clean, or, if not, small pieces of moistened linen rag, are preferable for effectually cleansing the conjunctiva.

The application of cold, if made in a careful and suitable manner, is of great assistance in the treatment. In the mildest form of the disease this application alone may even effect a cure in a few days. It is then only necessary to apply, for several hours a day, small linen rags, moistened by being dipped in cold water, changing them constantly. In the more serious cases, on the contrary, when there is much swelling, redness, and heat in the eyelids, and a copious discharge of thick yellow purulent secretion, it is necessary to apply, day and night, without intermission, small rags, previously placed upon ice, and to renew them continually. Later, when the elevated temperature begins to fall, the applications may be discontinued during the night, and gradually reduced, according to the course of the disease. In order to prevent the child from taking cold, it is necessary that the rags should be of a size merely to cover the eyelids without touching the bridge of the nose, and not to make them too wet.

We now come to the real curative treatment—that is, the cauterisation. It should only be done with mitigated nitrate of silver. The eyelids must be reversed one after the other, and, after being carefully cleansed, touched with the caustic, which must be passed over all the swollen and red part of the mucous membrane. Before replacing the eyelids in their natural position, it is necessary to neutralise the free nitrate of silver by a drop of salt water. For the first few days only of the disease we may restrict the treatment to the application of cold, and then commence the cauterisations; repeat them once a day, never more frequently, and, after an evident reduction of the disease, once every two or three days. It is important not to repeat the cauterisation until the scar of the previous one has disappeared.

To drop weak solutions of nitrate of silver into the eye is not advisable, even in the mildest forms; for the graver forms it is completely insufficient. Cauterisation with pure nitrate of silver ought never to be used, neither in this nor in any other disease of the conjunctiva, as it is impossible to limit its effects. The slightest touch with pure nitrate of silver, in fact, produces a strong cauterisation, not only not limited to the surface of the mucous membrane, but attacking the subjacent connective tissue. The cicatrisation which is the result of such cauterisations produces a permanent irritation of the eye, which cannot be removed by any possible means. None of the other known caustics can replace the mitigated nitrate of silver in the treatment of purulent ophthalmia. Let nobody avoid the trouble of preparing a pencil of nitrate of silver himself if he has not a suitable one already prepared at his disposal. The sole difficulty lies in procuring an iron mould, into which the mixture of one part of nitrate of silver and two parts of nitrate of potash is to be poured after having been melted over the fire. This difficulty could be avoided by immersing an iron wire repeatedly with one end into the melted mass until, on cooling, a sufficiently thick layer of caustic adheres to it. That is the procedure which I formerly recommended for caustic probes in cases in which it is desirable to cauterise with a very fine point or in a very narrow canal (lachrymal canals, lachrymal sac, ciliary roots, etc.).

In the most difficult cases, cleanliness, cold, and cauterisation are sufficient, and enable you to form a good prognosis. The case is, however, different when children come under your treatment, after a more or less great part of the cornea has already been destroyed, the iris projecting, the capsule of the lens injured; here the prognosis depends entirely, in the individual case, on the existing destructions. Ulcers of the cornea of no great extent, and not too near to perforation, allow of a still favourable prognosis; but it becomes more unfavourable already, when perforation has taken place, and the iris projects. There is a decidedly bad prognosis if almost the greater part of the cornea had been destroyed before the child came under your treatment.

In such grave complications, it is sometimes desirable to cut off the projecting iris, or to let out the lens. But I advise

you generally to abstain from those operations, which require considerable experience and practice. Direct your attention, then, exclusively to the quick cure of the affection of the mucous membrane, whatever the complication may be which neglect and false treatment have caused. You will be astonished to see how quickly even the gravest complications come to a comparatively favourable cure, as soon as the possibility of it has been given by the removal of the affection of the mucous membrane. I have shown you an instance of it in a child, in one of our previous meetings; it was brought as an out-patient, after it had suffered for more than three weeks from a very high degree of purulent ophthalmia, and had been treated during all that time with warm milk.

The corneæ of both eyes were perforated to a great extent, the iris protruding from the corneal wound, and the cornea of the right eye almost destroyed to half its extent. By care and cleanliness, application of cold, and daily cauterisation, the swelling and secretion of the mucous membrane speedily subsided, and spontaneously cicatrisation of the corneal ulcers, as favourable as could be expected, took place, although deliberately I limited my treatment exclusively to the affection of the conjunctiva, without touching the protruded iris—nay, even without the application of atropine. Nevertheless, you now see on its right eye only a leukoma, with a fine black dot in its centre, which indicates the place of the previously existing protrusion of the iris. There is, besides, a sufficiently large and transparent part of the cornea for iridectomy to be performed at a later period. As regards the left eye, it is to be expected that without an operation a tolerably good vision will be preserved, because the very much smaller cicatrix of the cornea is situated more towards the side, and leaves the greater part of the natural pupillary region uncovered. The protruded iris of this eye has spontaneously returned, and the previous existence of the protrusion is now only to be seen by the adhesion between a small part of the iris and the inner surface of the corneal cicatrix. If this case had been simply neglected for three weeks, without using warm milk—a popular remedy so favoured in spite of its mischievous influence—the destruction would have probably not reached so high a degree; but if, on the contrary, a rational treatment had been begun eight or ten days earlier, the disease would have been cured without leaving any disagreeable consequences.

If you inquire into the cause why the use of warm milk or of moist heat in general, in spite of its evident mischief, and in spite of the repeated warnings of ophthalmologists, could have gained ground in all countries, amongst the public as well as amongst general Practitioners, you will find that it originated in an erroneous supposition on the nature and origin of the affection.

It has always struck me with what haste relatives or nurses declare, as soon as they bring a case of purulent ophthalmia for treatment, that the affection is due to having caught cold. The same will be told you if you have to examine grown-up people, where you will find the results of an ophthalmia from which the individual has suffered immediately after his birth. In addition to the erroneous supposition of having caught cold in the eye, comes the wrong principle of treating that cold by warmth; and these errors have preserved themselves for generations, in spite of all the opposition against them. Let us, therefore, first of all, understand the pathogenesis, of which, in my opinion, there is not the slightest doubt.

You may accept it as proved that any pathological secretion of any mucous membrane, be it catarrhal or purulent, brought into the conjunctival sac, will cause a pathological condition of the conjunctiva, which will, on the one hand, according to the nature of the secretion, and on the other hand, according to the peculiar disposition of the individual, assume a variety of appearances. On going through the maternal passages, the eyes of the child are exposed to inoculations from two quite different sources. They are—first, gonorrhœal secretions from the urethra of the mother (this causes the most formidable cases of purulent ophthalmia, but only an extremely small percentage of the cases are due to that cause); by far the greater majority of cases are due to inoculation from the second of the two sources—namely, the secretion due to the increased functional activity in which the maternal passages are in the last month of pregnancy. According to the nature the secretion had taken in a given case, and according to the quantity of it introduced into the eye of the child, we shall see a series of affections ranging from simple conjunctivitis up to those forms of purulent ophthalmia which in no way are different from those caused by gonorrhœic secretion.

Whatever cause may have produced the disease, and whatever degree it may have reached, let me repeat to you it must be cured without leaving any serious pathological changes by a rational treatment, if early directed against it. Let us hope that rational principles in regard to this disease will soon be so generally spread that blind asylums will cease to be filled, as is now the case, by individuals who have lost their sight by purulent ophthalmia.

ORIGINAL COMMUNICATIONS.

A CASE OF

NEURO-SYPHILIS WITH APHASIA.

By RICHARD EATON POWER, L.R.C.P. Lond., etc.

J. B., aged 27, came under my care July, 1870, suffering from ophthalmia, with rheumatic enlargement of the knee.

Previous History.—By profession an engineer; acknowledged to have led a very fast life, and to have suffered severely from syphilis. His Hospital records date from July 21, 1868, when he was under treatment for rheumatism; discharged relieved in October of the same year. In January, 1869, he was readmitted, and treated for periostitis, and subsequently, in consecutive order, for sorethroat, enlarged glands of the neck, and ophthalmia, with which latter affection and rheumatism he suffered when first I saw him, and was kept under treatment up to November, 1870, when he was discharged, all the prominent symptoms having disappeared. He was again admitted the month following with abscess over the occipital bone, which subsequently left behind a small patch of caries on the left side of the occipital protuberance.

Under treatment, the ulcer healed, and in June, 1871, he had gained thirty-three pounds in weight, looked fat, and felt stronger than at any time since his reception into Hospital. On more closely examining him before discharge I fancied the mouth was slightly awry, but on testing further the muscular contractions were perfectly symmetrical, and, presuming that what I observed was a natural obliquity, and with the hope that fresh air and change from Hospital life might benefit him, I discharged him.

He was carried in the following morning in a state of right hemiplegia, having fallen down a short time previously in a fit. When I saw him two hours after, the paralysis (motor) was incomplete in the lower extremity and complete in the upper. The facial paralysis was well marked on the same side, articulation being much impaired, and partial aphasia present. Whilst undergoing examination he suddenly regained use of the arm, but not of the hand, which yielded a little to the flexors, and by evening his power of articulation was increased. These improvements were, however, but temporary, for another fit was followed by complete motor paralysis (right) with aphasia, which latter remained after he again recovered partial power of articulation. Curious, too, being aware of his inability to remember the word he wanted, he made signs for a pencil, and then found that he could not remember the shape of the letters.

A third fit was followed by complete unconsciousness, which continued until death on September 19, 1871.

On post-mortem examination, the brain was found highly congested, with some serous effusion, but not to any considerable amount. The left middle cerebral artery was atheromatous, and hard as a pipe of maccaroni; and on tracing it into the fissure of Sylvius for about an inch, it terminated in a space of white softening, about the bulk of a walnut.

Of the treatment I have said nothing, as, though doubtless the patient received benefit at times, it was powerless to remove the *materies morbi* which was slowly but surely destroying life. Cod-liver oil seemed to be most efficacious in promoting a tendency to health; he also took iron in different forms, phosphorus, iodide of potassium, bark and sarsaparilla, and strychnia in various combinations. At no time since his admission to this Hospital was mercury administered; but I believe he was treated with that drug for the primary disease.

My object in placing these notes before the Profession is, that they may add another item to the statistics of the relation between intracranial changes and their visible expressions.

Invalid Prison, Dartmoor.

The Newcastle Coroner has been presented with a sword to support his dignity. It will be remembered he lately spoke regretfully of the decay of the ancient custom of coroners wearing swords.

OBSERVATIONS ON

DR. C. B. RADCLIFFE'S THEORY OF THE GENESIS OF PAIN.

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A REMARKABLE theory, elaborated and propounded by Dr. C. B. Radcliffe,(a) concerning the proximate cause of muscular movement, normal sensation, and pain, has recently attracted some Professional attention, and is exerting an appreciable influence on therapeutics both in this country and in the United States. Physiological theories, whether true or false, which to any extent embody themselves in, or determine the character of, Medical Practice, establish, *ipso facto*, an undeniable claim to consideration by Medical men. Recognising this claim in respect to the theory advocated with much ability by Dr. Radcliffe, I listened to his lectures, in which he explained his views to the Royal College of Physicians, and have read attentively the two volumes which he has since published; and, in the hope of at least promoting the discussion of his doctrines, and, possibly, of contributing something towards the formation of a correct judgment concerning them, I propose to examine what seem to me his most important arguments in support of that part of his theory which relates to the genesis of pain.

In respect to sensation, his cardinal doctrine is, I believe, correctly stated as follows:—During each act of normal feeling there is an electric change in the feeling nerve, and in the sensory centre to which it is related. This change consists in a temporary reversal of the ordinary electric state of the nerve and nerve-centre in question. This reversal is accompanied by a discharge, or loss, of "natural electricity." While this reversal obtains, the vitality of the nerve and nerve-centre is lower than it is when the nerve and nerve-centre are not functioning; and hence a diminution of the normal supply of arterial blood, or the circulation of venous blood in the nervous centres, or, in other words, a lowering of their vitality, increases their sensibility or irritability, and therefore constitutes the indispensable condition precedent of pain.

Having propounded this astonishing theory, and having, as he believes, proved its truth, Dr. Radcliffe repeats the expression of it in several successive propositions, involving statements of pathological facts, which are called as witnesses to prove it. I refrain from discussing the significance of the electro-physiological experiments which he either exhibited in the course of his lectures, or has since adduced, in support of it, and I do so the more willingly because the radical elements of his theory seem to be still undergoing transmutation. In his newly published volume,(b) which, though not avowedly a second edition of his previous work, comprises the substance of it, and is intended to supersede it, he records the discovery of new facts, his recognition of which has necessitated a partial reconstruction, at least, of the foundation of his doctrine. He says—"What to think of this state of things I could not at all see at first. The facts would not chime in with preconceived conceptions, and the end was that the conceptions had to be modified to suit the facts";(c) and believing, as I do, that the "conceptions" will have to undergo several more metamorphoses before they suit all the facts which a true theory of the genesis of muscular motion and of pain must fully explain, I do not think it at present expedient to attempt a critical analysis of those "conceptions"; but, concerning the pathological facts to which he refers, his interpretation of them, and the use he makes of them, I venture to submit to the readers of the *Medical Times and Gazette* the following observations:—

Dr. Bland Radcliffe says:—"*Pain of a neuralgic character may be associated with a very depressed condition of the circulation.* It is a well-established fact that neuralgia in its most excruciating form may occur again and again without fever or inflammation. . . . Judging from the pale and perspiring skin, and the miserable pulse, which are so generally met with in the actual paroxysm of neuralgia, it may be supposed that this paroxysm is associated with a state of the circulation in which the habitual depression [alleged to exist] is exaggerated. Indeed, the appearances during such a paroxysm are often calculated to remind one of the cold stage of ague."(d) The whole paragraph from which this passage is extracted contains no word distinguishing the simultaneous state of the circulation in the spinal cord and sympathetic ganglia from that here alleged to be generally observable during the neuralgic paroxysm; and the meaning which the author evidently intends to convey is, that this "depressed state of the circulation—a state of anæmia, and not a state of hyperæmia"—obtains in those nervous centres, as well as throughout the periphery of the body generally. Now, whether or not that state does also obtain simultaneously in those centres is the very pith and marrow of the question at issue; and his assertion that it does is not only not proved, but, in my opinion, is actually disproved by thoroughly established facts. Even Dr. Radcliffe probably recognises the fact that the anæmia of the surface of the body, observable in the cold stage of ague, is due to excessive action of the ganglionic nervous centres; for he himself testifies to the truth of the discovery made by Claude Bernard and Brown-Séquard, that the contraction of the arteries in any, or in all, parts of the body is effected by "a state of action" of the ganglionic nervous centres functionally related by vaso-motor nerves to those arteries. He maintains, however, that the more intense this "state of action" is, the less is the supply of blood, or, at least, of arterial blood in those centres! But, though he believes in this continuous miracle—the production of nervous energy in inverse ratio to the quantity of arterial blood supplied to the nervous centres producing that energy—the great majority of neuro-physiologists and pathologists assuredly look upon vigorous action of the vaso-motor nerve-centres as evidence of an abundance of arterial blood in those centres; and therefore, while altogether refusing to admit that "a very depressed condition of the circulation" in the periphery of the body justifies the inference that a like condition obtains in the vaso-motor nervous centres, they will, I doubt not, interpret the state of peripheral anæmia as an expression and immediate product of hyperæmia in those centres. This conclusion is confirmed by numerous post-mortem observations in cases in which sufferers from cholera have died during the cold stage or in "collapse," and when, therefore, the peripheral arteries are contracted to the uttermost: in such cases the ganglionic nervous centres have again and again been found excessively hyperæmic. I may add that when ice is properly applied along any part of the spine, the peripheral arteries of the corresponding segment of the body become relaxed, and that when heat is thus applied the peripheral arteries become contracted. The relaxation is denoted by increased heat, and often by perceptibly increased fulness of the peripheral parts in question, while the contraction is denoted by a fall of temperature, and sometimes by more or less obvious shrinking of those parts. Now, I believe there is no possible explanation of these positive facts, except that which pre-supposes them due to modifications of the state of the circulation of blood in those centres—modifications induced, in the one case, by the application of cold, and, in the other, of heat to the spine; and that whereas the effect of the cold consists in lessening the vitality, contracting the bloodvessels, and lessening the amount of blood, the effect of the heat consists in augmenting the vitality, dilating the bloodvessels, and increasing the amount of blood—or, to use other words, in greatly exalting and quickening the circulation—in those centres. This conclusion directly contradicts, in so far as the ganglionic nervous centres are concerned, the proposition of Dr. Radcliffe at the head of this paragraph, and, implicity, the general theory of which that proposition forms a part; but it, as well as that part of his proposition which relates to the peripheral circulation only, is in perfect harmony with the doctrine which teaches that the existence of pain is immediately dependent on the presence of hyperæmia in the sensory centre affected. The question whether the spinal cord is anæmic or hyperæmic in cases of neuralgic pain I have elsewhere fully discussed; but I may observe here that the sympathetic ganglia and the cord are intimately connected, structurally as well as functionally—that, in fact, the several parts of the former are said to originate in the latter, and that, as there is a recognised tendency in all parts of the body to assume a condition of circulation or vascularity like to that of immediately neighbouring parts, the inference that when any considerable group of sympathetic ganglia is hyperæmic the proximate segments of the spinal cord are in a like condition, is a valid one.

"*Pain of a neuralgic character*," says Dr. Bland Radcliffe, "*would seem to be antagonised rather than favoured by an*

(a) "Lectures on Epilepsy, Pain, Paralysis, and certain other Disorders of the Nervous System," delivered at the Royal College of Physicians in London. By Charles Bland Radcliffe, M.D. London. 1864.
(b) "Dynamics of Nerve and Muscle." By Charles Bland Radcliffe, M.D., F.R.C.P. London. 1871.
(c) *Ibid.* Preface, p. 7.

(d) *Ibid.*, pp. 270, 271. This passage is word-for-word the same in the "Lectures," published in 1864, and in the "Dynamics of Nerve and Muscle," from which it is now quoted.

over-active condition of the circulation"; and he tries to establish this proposition by adducing in support of it several pathological facts generally recognised as indubitable, and akin to each other in character. He says—"In rheumatic fever, the rule, I believe, will be found to be this—that the pains which had been torturing the patient for days or weeks or months previously . . . come to an end when the feverish reaction and local inflammation of the fully formed disorder make their appearance." He adds—"It is also difficult to look upon the local inflammation of gout as essential to the existence of the racking pain of this disorder." He quotes Sydenham's description of an attack of gout to prove that the pain precedes the inflammation, and appeals to Dr. Garrod in confirmation of his assertion that, when gouty "inflammation runs higher than usual, *the characteristic pain is less urgent than usual*. . . . It would seem," he says, "as if the inflammation of gout were not essential to the pain of gout. It would seem as if the pain went hand in hand with the rigors which are preliminary to the development of the inflammation. . . Nay, it would even seem as if the pain were put an end to by the establishment of the inflammation—as if, in fact, the pain were antagonised rather than favoured by the inflammatory condition. . . There is also reason to believe that pain holds the same relation to fever and inflammation in other kinds of fever besides the rheumatic, and in other kinds of inflammation besides the gouty. Six or seven years ago I had a patient in the Westminster Hospital, who, when I saw him first, complained of violent pains all over the body, especially in the back and loins, and also of chills and shivers. A few hours afterwards he was hot and feverish, and the pain and chills and shivers had all taken their departure. The case was one of small-pox; and the lesson I gathered from it was that the pains and the rigors were symptoms which ought to be classed together, and considered as belonging to the cold and not to the hot stage of the fever. And this case would seem to be a fair illustration of what happens in other fevers; for it seems to be the rule rather than the exception for the pains which attend upon the onset of these disorders to pass away or to become greatly mitigated when the cold stage gives place to the hot stage. . . . Nor is it different with inflammation. In the case of a dislocation or sprain, for example, the acute pain of the accident does not, as a rule, remain after the parts have begun to be hot and swollen and tender; and this case is certainly no exception in the history of inflammation. It would seem, in fact, as if the proper place for the pain was among the phenomena of the preliminary stage—the stage of 'shock'—and not among the phenomena of actual inflammation. . . . Nor is a contrary conclusion to be drawn from the history of certain cases in which pain continues as a permanent symptom after the full establishment of inflammation, as, for example, in deep-seated inflammation of the mamma; for, in these cases, it is a fact that this persistent pain is immediately relieved or removed by those operative measures which diminish the tension or stretching arising directly or indirectly from the inflammation."(e)

Though Dr. Radcliffe asserts that "pain of a neuralgic character seems to be antagonised rather than favoured by an over-active condition of the circulation," he does not say whether he means "an over-active condition of the circulation" in the nervous centres as well as in the periphery of the body; but the general drift of his argument, and especially the whole tenor of his remarks in his article on "Diseases of the Spinal Cord,"(f) make it certain that this is precisely what he does mean. In fact, the proposition, established as he believes himself to have established it, is intended as a conclusive confirmation of his fundamental principle that pain and vitality of the sensory nerve-centres are in inverse proportion to each other. Stated briefly, the argument by which Dr. Radcliffe endeavours to support the proposition in question consists in his assertion that, as a general rule, the pain which is felt in cases of fever does not accompany the fever, but precedes it; that, in like manner, the pain which is felt in cases of inflammation does not accompany the inflammation, but precedes it; and that, moreover, the supervention of the actual fever or inflammation drives away, or antagonises, or, at least, mitigates the pain. The relation in respect to time, or the order of succession of the pain and fever, or of the pain and inflammation, is an exceedingly interesting and instructive one; but its pathological significance seems to me wholly misinterpreted by Dr. Radcliffe, and the following considerations will, I believe, show that, while rightly interpreted it affords no countenance whatever to his peculiar theory, it confirms in a striking manner the doctrine concerning the proximate cause of pain already mentioned.

It will probably be thought that the exigencies of his theory have tempted Dr. Radcliffe to draw a more distinct line of demarcation between the pain and fever and between the pain and inflammation than is warranted by accurate observation of the phenomena in question—that, in fact, pain co-exists with the fever and with the inflammation more generally, or to a greater extent, than his statement of the case implies; but, whatever may be the exact truth of the matter, I think it expedient, for the sake of the argument, to assume the correctness of that statement, and it seems to me that the facts which it embodies are fully explained by the following propositions:—(1) That all fevers and inflammations begin in the nervous system, and are essentially disorders of that system; (2) That as their exciting cause or causes must first operate on centripetal nerves, the sensory nerve-centres into which they converge are primarily irritated, and therefore give evidence of the morbid excitement which is being wrought in them in the swiftest and most immediate way they can—viz., by functioning so intensely as to produce the consciousness of pain before the other phenomena of the fever or inflammation, which is being developed, are observable; (3) That the excitement of those centripetal nerves which are in the area of operation of the exciting cause of the fever or inflammation, and which terminate in vaso-motor nerve-centres, originates irritation, hyperæmia, and, consequently, excessive reflex action of those centres on the bloodvessels to which they are functionally related, and thus produces that peripheral anæmia and surface-pallor constituting, when obtaining all over the body, the most obvious phenomena of "nervous shock"; (4) That the primary irritation of the sensory nerve-cells in some part of what Marshall Hall called "the true spinal cord"—viz., the conjoint spinal cord and medulla oblongata—in cases of local inflammation, and in the whole of that nervous centre in cases of fever, is slowly propagated to those cells in which originates the force productive of textural nutrition, and which, becoming preternaturally excited, transmit their morbidly excessive force through nutritive and secretory nerves, and thus, according to the nature of the primarily exciting cause, light up local inflammation in the one case, or general fever in the other; (5) That as, through the medium of the centripetal nerves, the sensory cells in the spinal cord and the vaso-motor cells in the sympathetic ganglia first receive the impulse of the exciting cause, the morbific force which is expended on them becomes, as a general rule, first exhausted; (6) That as the centripetal nerve-cells become thus exhausted, pain gradually subsides, and the peripheral bloodvessels, held firmly contracted until now by the constringing action of the preternaturally energetic vaso-motor nerves, are allowed completely to relax, and thus to convey a superabundance of fuel to the fire originated by the conductors of the nervous force effecting textural nutrition—whether that fire is restricted to some one region of the body (local inflammation) or extends over the whole (general fever)—while the nutritive nerve-centres still continue in excessively vigorous action; and lastly (7), That in those cases in which the pain persists, as "in deep-seated inflammation of the mamma," the morbific force expended on the sensory nerve-cells, instead of becoming exhausted, is constantly renewed by continuous irritation of the sensory nerves, rendered preternaturally sensitive by being within the focus of inflammation, and subjected to pressure or stretching owing to the peculiar character of the structures amid which they ramify.

If, as is generally admitted, pain in the back, chills, and shivers herald the onset of small-pox and other fevers; if pain in some cases of local inflammation is the first and principal symptom; if pain can only be experienced by the agency of nerve-cells in some part of the "true spinal cord"; and if chills and shivers are mainly induced by vaso-motor nerve energy, causing general constriction of the peripheral arteries, the proposition that all fevers and inflammations begin in the nervous system, and are essentially disorders of that system, seems to me incontrovertible; and therefore I adopt it as the fundamental principle by which to explain the pathological phenomena in question. I feel confident, however, that Dr. Radcliffe agrees with me in recognising the truth of this principle; we only differ as to the *state* of the nervous system *while* those phenomena are observable.

In respect to my second proposition, it must be observed that, even in those cases in which a cause of fever may be fairly supposed to gain access to the system by first coming in imme-

(e) "Dynamics of Nerve and Muscle." By Charles Bland Radcliffe, M.D., F.R.C.P. London. 1871. P. 271, *et seq.*

(f) *See* "A System of Medicine," edited by Dr. Russell Reynolds.

diate contact with the blood, it is certain that when the sensory nerves throughout the body are bathed with blood which has received a morbid taint, they will become so affected as to produce a profound impression on the sensory centres into which they converge; and therefore that in these cases, as well as in those in which the exciting cause undoubtedly operates primarily at the periphery of the centripetal nerves, we are justified in inferring that that part of the nervous system, the special function of which is the reception of impressions, will be the first to be modified by the agency of the morbific cause in question. Now, if my second proposition be admitted, the fact that pain and "nervous shock" are the forerunners rather than the accompaniments of fever and local inflammation, is at once and easily intelligible, without resorting to the far-fetched hypothesis that "pain of a neuralgic character would seem to be antagonised by an over-active condition of the circulation." Moreover, I repeat my assertion that pain, and especially pain in the back, is annulled by the sedative influence of ice along the spine; but if pain in the back were "antagonised by an over-active condition of the circulation" in the spinal cord, surely the application of ice, which induces an exactly opposite condition, ought, instead of abolishing, to favour the development of pain.

Again, according to the third proposition, the most obvious phenomena of nervous shock—peripheral anæmia—and consequent surface-pallor, while not necessarily denoting a depressed condition of the circulation in the nervous centres, may actually denote and, indeed, originate in an exactly opposite condition. That they do originate in hyperæmia and not in anæmia of the vaso-motor nerve-centres, is demonstrated by Claude Bernard and Brown-Séquard, and is admitted by almost every neuropathologist entitled to form an opinion on the subject, and the demonstration is conclusively confirmed, as it seems to me, by the established fact that those phenomena, like pain, may be abolished by the application of ice along the spine.

In reference to the fourth proposition, I may remark that, as the nutritive nerve-cells are concerned in maintaining that steady equilibrium between the constructive and destructive processes of textural nutrition, which is the essential condition of the continuous life of the organism, it is readily conceivable—and, indeed, to be expected—that they should be less easily and less speedily influenced than are any other constituents of the nervous system by causes operating from without. A splinter in the finger produces pain immediately after its insertion, but a considerable time elapses before the excitement of the sensory nerve-cells, resulting in pain induced by the irritating action of the splinter, is extended to the neighbouring nerve-cells, which are sources of nutritive force, and becomes manifest in that intensified action of textural nutrition we call inflammation, in the part where the splinter is inserted. In like manner, the poisons productive of various diseases—and especially of those constituting the exanthematous group—though producing an immediately perceptible effect on the sensory and vaso-motor nervous system, do not reveal their virulence through the agency of the nutritive and secretory nerves, until several days have elapsed; and it seems to me not improbable that some definite relation will yet be discovered between the length of the period of incubation of each eruptive disease and the force of the poison generative of it, and perhaps it will be found that the greater the force the more quickly it effects those morbid changes in the nutritive processes which manifest themselves in eruption. Moreover, the time which necessarily elapses after the reception of the poison and the full manifestation of its influence by the textural changes which it produces, is prolonged by the temporarily contracting power of the vaso-motor nerve-centres; for, according to Proposition 3, the effect of the poison in those centres is preternaturally vigorous action, and, consequently, such energetic contraction of the peripheral arteries as to produce peripheral anæmia. Now, so long as this condition lasts, the nutritive nerves may function with morbidly intense energy, and yet the evidence of their action may be comparatively slight. But a time soon comes when, according to Propositions 5 and 6, the energy of the sensory and vaso-motor centres is spent: forming as they do the outworks of the associated structures of nervous centres, they are attacked first and yield first. Claude Bernard has demonstrated that when the spinal nerves are severed from the spinal cord, they begin to die at the periphery, and that death slowly and gradually advances from the periphery to the centres. Now, the vaso-motor nerve-centres themselves occupy, in relation to the spinal cord, a peripheral position, and therefore, if arguing from analogy only, I should infer that, in cases of death of the whole nervous system, those centres die before the spinal cord, and, by a parity of reasoning, I infer that in cases of inflammation and fever their energy is first exhausted. But, confirmatory as this argument is of the propositions in question, it is scarcely needful, seeing that the speedy supervention of what is called the stage of feverish reaction, after a period of chilliness and shivering, is not only inevitable for the reason already explained, but is a fact of common observation. Now when, in the cases under discussion, the energy of the vaso-motor centres becomes exhausted, the peripheral arteries, relaxing, allow a superabundant supply of blood to pass through them, and become the material wherewith the morbidly excited nutritive nerves effect those formative and transformative processes, constituting the most notable phenomena of exanthematous fevers.

If the foregoing interpretation of the facts in question is the correct one—and I am constrained to believe it is—then it is obvious that pain is "antagonised" in no way whatever by "an over-active condition of the circulation." The relation of the phenomena is one of orderly sequence, arising out of the necessary conditions under which the force producing them operates, and is in no sense a consequence of their simultaneous incompatibility. In fact, for the reason stated in Proposition 7, pain and inflammation do very often coexist; and though, as Dr. Radcliffe says, pain is in such cases immediately "relieved or removed by those operative measures which diminish the tension or stretching arising directly or indirectly from the inflammation," the mode of relief does not consist in removing the inflammation, but only the pressure or tension on the sensory nerves, which was protracting their excitement. and, therefore, acting as a continuous cause of the continuous pain.

(To be continued.)

REPORTS OF HOSPITAL PRACTICE

IN

MEDICINE AND SURGERY.

LONDON HOSPITAL.

CASE OF EPILEPTIFORM SEIZURE, BEGINNING IN THE RIGHT HAND.

(Under the care of Dr. HUGHLINGS-JACKSON.)

With the report of the following case are remarks, which give briefly Dr. Hughlings-Jackson's views on a class of cases of convulsions, which he believes to be the most important for methodical investigation, in the hope of arriving at more definite conclusions as to the nature of epilepsies in general. These cases he has called (*Lancet*, March 9, 1867; *Medical Times and Gazette*, August 15, 1868) corpus striatum epilepsy, believing the convulsion to be the counterpart of corpus striatum paralysis (the common form of hemiplegia). It is, perhaps, safer to speak of it as convulsion beginning unilaterally. He supposes—at all events, when the spasm begins in the hand—that the disease is in the region of the middle cerebral artery.

A healthy-looking boy, 15 years of age, attended January 30, 1871, for convulsive attacks beginning unilaterally. He has been subject to such fits since July, 1869, and was first seen by Dr. Hughlings-Jackson, December, 1869. The fits began in the hand (the right).

Fits of this class (convulsions beginning unilaterally) do, in most cases, begin in the hand, less frequently in the side of the face or tongue (or both), and rarely in the foot. In other words, the fits more frequently start in those parts on one side of the body which have the more voluntary uses (which have the greater number of *different* ranges and intervals of movement). The same thing is seen in details. When a fit begins in the hand, the index finger and thumb are usually the digits first in spasm; when a fit begins in the face, the side of the cheek is first seized; and when a fit begins in the foot, the great-toe is the part first moved. As implied, there are exceptions. Thus, this boy's fits began in the *outer* fingers of the hand. Indeed, this case is chosen for report because it has several peculiarities, which are not quite in accordance with what *most frequently* occurs, and to which it is desirable to draw attention.

The next thing is to ascertain how the spasm spreads. The boy says "it" first makes the hand "weak"; then spasm attacks the outer fingers, and spreads to the thumb. He

remarks—"If I can manage to keep the hand open I don't go off," but adds, "I can't do it myself, because it comes in the thumb," and tries to show that, although he can bend back the fingers with his left hand, he cannot manage the thumb.

It is well known that fits of this class are often to be stopped by the ligature, or by rubbing the part, or, as in this boy's case, by forcibly overcoming the initial contraction. And such fits may be kept off for a long period, as Brown-Séquard and Buzzard have pointed out, by placing a garter of blister above the point in which the fit begins. The ligature is as successful in averting the fit in cases where there is gross organic disease (*e.g.*, in syphilitic disease of the brain), as in cases where there is no evidence of organic disease. This was said long ago by Brown-Séquard, and Dr. Hughlings-Jackson has seen several cases completed by autopsy, showing the correctness of the observation. (In cases, such as would be usually called idiopathic epilepsy, the patient may shake off the fits by walking about or by stamping. He may remark—"I nearly had a fit, but I got the better of it.")

In this connexion it may be remarked that in some cases of convulsions beginning unilaterally there is, along with the spasm, pain so severe that the patient will ascribe his subsequent insensibility to the pain—no doubt erroneously. The sensation occasionally preceding the spasm ("aura") is probably a skin sensation; the pain with the spasm is, doubtless, from implication of the sensory nerves to the muscles. We seem to have here a sort of caricature of what is supposed to take place in the orderly movements of health. The action of some of the procedures mentioned as of use in stopping the fit, is probably on the sensory nerves of the muscles rather than on the skin nerves—especially in the instances where the fit is stopped, as it frequently can be, by overcoming the initial contractions.

To return to the case—to the further spreading of the spasm when not stopped. If it goes on, "it works" up the arm to the elbow; then to the shoulder; then to the side of the face. As in so many cases of convulsions beginning unilaterally, the attacks are often limited. This boy's fits, he said, frequently cease at the shoulder. In some cases of this class there are for a period only very partial fits, affecting the hand, for instance, or even only one or two fingers (see a case in this journal, January 31, 1863), and afterwards severe convulsions. Indeed, there are many, if not all, degrees of severity in single cases. Thus, the same patient will sometimes have twitching of the hand only, or even movement of one finger; at other times, severe and general convulsions, with profound insensibility and tongue-biting. To continue the case—"If it lasts it goes to the leg." "It has to attack very strong to go to the leg." It is especially important to note the *direction* in which the spasm invades the leg. It begins at the hip, then goes *down* to the knee, and next reaches the foot.

On but one occasion has "it" passed to the other (the left) side of the body. We will call this the "second" side. This is the only case Dr. Hughlings-Jackson knows in which the patient has *described* an attack of convulsion extending to the second side. The rule is, that patients become insensible long before the second side is reached, and, indeed, before the first side is fully involved. Once more the point of importance is the *direction* of invasion. "It went across the chest" to the left arm, and went *down* the arm. However, the spasm of this limb was slight, and it did not reach the fingers. It will be seen that it attacked the second arm in a direction the reverse of that in which it attacked the first arm. To recapitulate. The sequence of spasm was, in this seizure—*first side*, up the arm, to the face, down the leg; *second side*, down the arm.

As to the sequence of spasm on the first side, there can be no reason to doubt at least the general accuracy of the patient's account, for it is such an account as we often receive from patients. And as to the march of the spasm down the left arm (the arm of the second side), it is to be mentioned that he gave just the same account a year ago (December, 1869). Whilst it is not well to trust to a single observation, and that by the patient, the case may serve to illustrate what has been said as to the importance of noting the exact sequences of spasm in cases of convulsions. We should never neglect the opportunity of carefully watching the march of a paroxysm. By such observations, and by noting the particular parts of the nervous system found diseased after death, we may learn what particular co-ordinations those parts superintend during health—what movements they "contain." For, just as hemiplegia is not to be looked on as loss of power over certain anatomical groups of muscles, but as the loss of a certain number of co-ordinations in which the muscles of the arm and leg serve, so a convulsion is not to be thought of as a spasm of groups of muscles, but as an abrupt development of certain co-ordinations in which the muscles of the arm, face, and leg serve. When we witness a paroxysm we have to observe (1) the range of the spasm (how far it spreads), and (2) the order in which it spreads. When fits begins in the hand, the spasm spreads up the arm and down the leg; when a fit begins in the foot it spreads up the leg and down the arm. The last observation rests entirely on the accounts patients give, and it must be mentioned that one patient said that after "it" had gone up the leg "it" went up the arm—not down, as most patients tell us who have fits beginning in the foot. It is especially important to note what takes place on the second side. But it must be observed that muscles of both sides of the trunk are involved before the unilateral of the second side are reached, or before they are in strong action. In the boy's case the implication of the thoracic muscles—these are eminently bilateral—seems to have been slight.

Here reference must be made to Broadbent's hypothesis on unilateral and bilateral movements (*see* his original paper, *Medico-Chirurgical Review*, April, 1866.) An account of Broadbent's hypothesis is now easily accessible; it is given in Watson's "Practice of Medicine," vol. i., and as Sir Thomas Watson adopts it, it is useless to say anything here as to its great importance.

In fits of this class the second side is usually less convulsed, and Dr. Hughlings-Jackson believes its parts are convulsed more contemporaneously; but he has had few opportunities of witnessing the convulsion of the second side, and is unable to speak with confidence as to what occurs. As spasms become more contemporaneous there is a nearer and nearer approach to tonic spasm, and Dr. Hughlings-Jackson believes that the further the spasm spreads—in other words, in passing from the voluntary to the automatic movements—the less clonic and the more tonic it becomes.

The boy has loss of use of his right arm for a minute or two after the spasm has ceased. It is well known that after some convulsions beginning unilaterally there is hemiplegia as complete in range as usually follows a clot in the corpus striatum; but the hemiplegia is transitory—it may last minutes, hours, or days. When the spasm is limited the consequent palsy is limited, as in this boy's case. Dr. Hughlings-Jackson has seen a case of absolute paralysis of one arm after a convulsion affecting that limb and the same side of the face, although there was no trace of loss of consciousness. Recovery from the palsy nearly always follows, even when there is organic disease; for the palsy does not depend on the organic disease (not on the destruction it effects), but is probably the result of the excessive discharge upon the nerves and muscles of the region affected—it is the result of the paroxysm itself.

It is to be observed that in some cases of partial convulsion the fit will cease instantly.

In this boy's case there is loss of speech, he says, when "it gets to his head." Trouble of speech more often occurs in those cases where the spasm begins in the right side of the face or tongue, or both. In some cases there is temporary loss or great defect of speech when there is no more spasm than slight twitching of the right cheek. These cases Dr. Hughlings-Jackson has named "epileptic aphasia"—a nomenclature of the same style as "epileptic hemiplegia." Trouble of speech is not often complained of when the fit starts in the hand, even when the spasm reaches the face. Cases are not called epileptic aphasia in which there is no spasm. Temporary loss of speech no doubt occurs from embolism or thrombosis; at all events, it occurs in cases of valvular disease of the heart—rarely, it is true.

The first fit of this series came on the day the boy went to a new situation, and he ascribes its occurrence to excitement; he mentioned that there were a great many boys, and much noise from machinery. Probably the excitement was only the determining cause of the discharge of that *part* of his nervous system which has been diseased at least since July, 1869. That there is a part diseased—that the disease is local—is as certain as it is that the spasm is local. That the same part diseased has been diseased at least since July, 1869, is inferable from the fact that the patient's fits have always started in the same way. Dr. Hughlings-Jackson (*see* London Hospital Reports, vol. i., 1864, and St. Andrews Reports, vol. iii.) thinks that the part diseased in such a case as this is in the region of the left middle cerebral artery. As to the nature of that disease, the *functional* nature of the changes in nerve-tissues is *not* that it is *destroyed;* it is highly unstable, for it discharges occasionally, and, probably, it may be added, that it discharges on slight provocation. There is grey matter, which, by continuous

nutrition, reaches an abnormally high degree of unstable equilibrium. The next point is, by what *pathological* power does this condition of unstable equilibrium result? There is no evidence in this case. The boy has no valvular murmur; he has not had rheumatic or scarlet fever. We may, however, go so far as to infer that in all probability there is not gross cerebral disease—no tumour or other adventitious product. It is safer, however, to say he has had no symptoms of such gross disease; he has not had severe headache, vomiting, and there are no abnormal changes to be seen by the ophthalmoscope. We can only infer, Dr. Hughlings-Jackson believes, that there is a portion of unstable grey matter in the Sylvian region this boy's left cerebral hemisphere, which discharges occasionally. How that instability was caused there is no evidence to show. The patient was treated empirically by bromide of potassium. In cases of this class a longer period of immunity follows treatment than in cases of so-called idiopathic epilepsy.

CHARING-CROSS HOSPITAL.

CANCER BEGINNING IN THE INGUINAL GLANDS, AND EXTENDING UPWARDS ALONG THE LYMPHATICS INTO THE CHEST.

(Under the care of Dr. SILVER.)

W. F., aged 22, a native of Brentford, is a rivetter by trade; his father and mother are both alive and well. There are seven others in the family, and all are healthy. He has always been healthy, sober, and hard-working up to the commencement of the present illness. Two winters ago work was scarce, and so he lived badly. He and his brother, therefore, went to Sunderland to look for work, but could not obtain any; so they had to return, which they did by walking the greater part of the way. After reaching Birmingham he felt a pain in the right groin, and on putting his hand there found a swelling about the size of a walnut. At this time he was footsore, but does not know that the skin of his feet was broken. On reaching home his feet were so much blistered that he had to lay up for six weeks. The feet got better, but the swelling in the groin did not go down. He then resumed work, the swelling still remaining unchanged for about eighteen months; it then began to increase in size, and continued to increase up to the time of his admission into the Hospital.

About six months ago a swelling appeared in his left groin. His attention was drawn to this by a sensation of pain in that region. It, too, increased in size up to about two months ago. He applied to King's College Hospital, and was admitted. There he remained an in-patient for eight weeks. A few days before leaving a swelling appeared in his right leg, behind, from the knee to the ankle. The swelling extended until it affected the whole leg, thigh, and scrotum, but after a week it subsided.

On July 16 he was admitted to this Hospital for the swellings in his groin, and was doing well up to September 25, on which day he went out and got a little wet, which gave him a violent cold. Up to a certain date he used to lie on his right side; he now lies on his left. The time of the alteration is not very clear. After the cold he had a good deal of cough, but did not expectorate much. About a week ago he noticed that his breath was very short.

He now (October 10) has a large irregular indurated swelling in his right groin, in a line with Poupart's ligament, and a smaller one in his left groin. Both legs are swollen and œdematous, the right more so than the left; the scrotum is also infiltrated with fluid. The spleen is enlarged. The left arm is œdematous nearly to the shoulder. The abdomen is much swollen, pits on pressure, is clearly resonant, and is of greater bulk on the left side. The apex-beat of the heart appears to be on the left side of the epigastrium. His respiration is entirely thoracic; the right side of his chest expands much more than the left, but the left is rounder and more full than the other. The right side is loudly resonant in front; the left side is clearly resonant at the apex in front to the level of the third rib, below which there is uniform dulness. Respiration on the right side is puerile; at the left apex it is less audible, yet distinct. In the left axilla respiration is scarcely audible; the voice-sounds tolerably clear. Over the sixth rib, just outside the nipple, there are no heart-sounds audible; breathing barely audible; voice-sounds inaudible.

When this history was taken, the man had newly come under the care of Dr. Silver, having been transferred from the care of Mr. Canton. The man was so weak that a perfect examination could hardly be made. A day or two after he died.

Post-mortem the Day after Death.—The lower extremities were very œdematous, and on opening the abdomen a large quantity of yellow serum escaped. On opening the chest an enormous quantity of sero-purulent fluid escaped from left pleura. The heart was found pushed over to the right side; left lung completely collapsed, but distensible; right lung containing some bloody fluid at its apex; liver larger and paler than usual; spleen very much enlarged, nodular on the surface, and in colour very dark. On removal of the intestines, an enormous mass was found, reaching from the groin to above the level of the diaphragm, enclosing and firmly surrounding the vessels. The vessels, though thus surrounded, were not involved, but only firmly enclosed in the mass. The spleen, which was much enlarged, on section, presented cancerous-looking nodules; and the same kind of growth extended along the thoracic duct, blocking up all the intercostal veins on the left side save two.

Microscopical examination showed the inguinal glands, the abdominal tumour, and the splenic nodules to consist mainly of small, plump, rounded cells, with some trabecular connective tissue, associated with spindle-shaped cells, which were also found in the liver somewhat abundantly. The characters were those of a somewhat rapidly growing cancer.

Remarks.—In bringing this case under the notice of the students, Dr. Silver remarked: There are many points of interest in the above narrative. We have first of all the formation of a glandular tumour as the result of foot-soreness, which, unlike such tumours, remained behind when all the irritation which had produced it had gone. That must be accepted as the beginning of the disease. For a time the glandular mass in the groin kept on getting bigger and bigger, but again, by the testimony of those under whose care the man has long been, it has latterly much decreased. The man, when I first saw him, had a marked and peculiarly pallid hue of countenance, not pure white, but with a yellowish tint as is seen in chlorosis. The tumours in his groins were not painful; and I may as well say that during life the abdominal mass was not detected. The spleen was enlarged to a marked extent. These were the main features of the case: glandular enlargement, splenic enlargement, general paller, great weakness. How did we try to connect them? Well, in this way. There is a form of disease sometimes known as Hodgkin's disease, from him who first described its post-mortem appearances; this is a disease semi-malignant in character, and characterised by the invasion of various organs with lymph-like elements. It appears to originate in the lymphatic glands, and is also known as lymphadenoma. That would have accounted for the specific symptoms. We could suppose a multiplication of lymphoid elements in the inguinal glands giving rise to increased size and, from tension, pain. We saw the spleen was greatly enlarged, and could suppose the enlargement due to the same cause. The blood was examined, and no undue proportion of white corpuscles was observed, which perhaps somewhat tended to confirm our opinion; and so we concluded that the disease was of this semi-malignant character. But in the other features of the case several points of interest may be noted. It was quite evident that the circulation in the lower extremities was obstructed, for there had long been swelling in them—swelling evidently due to pressure on the the femoral veins by the tumours in the groin. These tumours would alike account for the swelling in their subcutaneous connective tissue, and in that of the scrotum; for it was into the connective tissue, and not into any of the connexions of the testicle, the fluid was effused. So, too, as noted, was it with the abdomen; it was the wall of the abdomen which was œdematous, not the peritoneum, which was filled with fluid. The obstruction to the circulation lay, not in the portal, but in the main channels for the return of blood. The quantity of fluid so effused was not large, and it had, in great measure, gravitated to the left side, on which the youth lay habitually, just as it would had it been free within the peritoneum. The origin of this effused fluid did not seem obscure. The superficial abdominal veins at the lower part of the belly return their blood by the saphena and femoral; these were obstructed by the tumours, and so an explanation was easy. Afterwards, when we say "the great abdominal vessels closed and surrounded by a cancerous mass," it was plain that this, too, had to do with the effusion; but at the time the explanation given seemed sufficient. But in the chest, too, there was effusion of fluid, and the effusion was unilateral. How to account for that? In my mind there was a lurking suspicion that the glandular disease had something to do with it—that was the reason why I did not tap; but a sufficient explanation is apparently to be got from the patient's history. He had been out and got wet; he coughed, and he did not spit;

he changed the side on which he used to lie about the same date. All this pointed to subacute pleurisy, with speedy and extensive effusion. So, doubtless, there had been; for, whereas in the other cavities examined the fluid was quite clear, here it was sero-purulent. Nevertheless, here, too, the post-mortem examination revealed other causes of transudation; for on that side the malignant disease had extended along by the thoracic duct, and had obstructed all the intercostal veins save two. Such a condition would readily account for the great accumulation of fluid and the complete collapse of the lung—so complete that it looked like a small spleen, but yet was quite capable of being distended by a blowpipe. Yet, again, there was fluid effused beneath the skin of the hand, forearm, and arm up to a certain level on the left side. How was that to be accounted for? From our point of view, easily enough. Here was a man compelled by the necessity of his case to lie constantly on his left side, the upper portion of his arm pressed closely to his side, and withal with a weak and displaced heart. In these factors we had enough and more than enough to account for the swelling; and when the hand was raised above his head it in great measure disappeared. Thus, in this case we had certain symptoms giving us some idea of the nature of the disease—some diverting our attention from its nature and attracting us to its anatomical site. But the nature of the disease, as revealed by post-mortem examination, was sufficiently interesting; the disease, notwithstanding its peculiar history, was unmistakably cancer—cancer alike affecting the lymphatics and the spleen. Yet in these inguinal tumours we have a history very unlike cancer, of swelling lasting for two years, and then considerably diminishing in size, with no tendency whatever to ulceration. Here, too, was revealed the tendency to spread in the fashion often seen in cancer; the aorta and cava were embedded in a cancerous mass, yet their channels were clear and their walls apparently healthy, though by the lymph-channels the morbid growth had reached upwards into the chest. Finally, the case well shows how anatomical position may give rise to symptoms which have no necessary or even remote connexion with the disease.

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Medical Times and Gazette.

SATURDAY, DECEMBER 23, 1871.

A MEDICAL MANIFESTO.

We publish elsewhere in our pages, this week, a very weighty and important "Medical Declaration respecting Alcohol," which, we are sure, will be most carefully considered by our readers. It has received, already, a very large number of signatures. First among the names subscribed are those of nearly every Medical member of the Royal Households—a list that First President-Elect of the future British Republic, Citizen Dilke, will gloat over. Then come the names of a large number of the most eminent Physicians and Surgeons in London, whether now or formerly on the staffs of the London Hospitals, or not; and lastly, we find the signatures of several well-known and trusted provincial Medical authorities. Such a document commands the most respectful attention—the more so as it is open to criticism.

We have no idea who originated the movement, or who drew up the Declaration, but we must venture to observe, *pace* the eminent men who have signed it, that it seems to us to be, here and there, not very happily worded. With by far the greater part of it, and with the purpose and object of it, we entirely and most cordially agree. We are "firmly convinced that the great amount of drinking of alcoholic liquors among the working-classes of this country is one of the greatest evils of the day, destroying—more than anything else—the health, happiness, and welfare of those classes;" and we "are also of opinion that many people immensely exaggerate the value of alcohol as an article of diet." We are as far as possible from wishing to lessen the good effect such a paper as the Declaration may do, but we think that many Medical men may object to signing it as it now stands. It is just possible that to some its logic may appear rather feminine, as if it had been drawn up by some one of the lady preachers or writers against intemperance, for it begins—"As it is believed that the inconsiderate prescription of large quantities of alcoholic liquids by Medical men, for their patients, has given rise, in many instances, to the formation of intemperate habits," etc.; and it finishes with—"The undersigned would gladly support any wise legislation which would tend to restrict within proper limits the use of alcoholic beverages, and gradually introduce habits of temperance"—which sounds rather like, "Medical men prescribe alcohol carelessly; therefore, introduce a new Licensing Bill, or adopt a Maine Liquor Law, and gradually shut up the public-houses."

But we do not suppose that this is meant, and a careful perusal of the document would prevent any such error being seriously entertained; so we will pass that by. We think, however, that the first sentence of the Declaration is open to very grave objection. "As it is believed that the inconsiderate prescription of large quantities of alcoholic liquids by Medical men," etc. Believed by whom?—by the large number of eminent men who appear as "the undersigned"? We can hardly think it! It appears to us almost impossible that the Physicians and Surgeons whose names are attached to the Declaration seriously mean to prefer such a very grave indictment against their brethren. Yet the wording of the document may be held to imply that they believe that Medical men are responsible for a large part of the intemperance of the day. We are not prepared to deny that here and there a Medical man may too carelessly recommend a patient to take a little wine for his health's sake, and we fully concur in the opinion that no Medical Practitioner should prescribe alcohol "without a sense of grave responsibility," and that it "should be prescribed with as much care as any powerful drug, and that the directions for its use should be so framed as not to be interpreted as a sanction for excess, or necessarily for the continuance of its use when the occasion is past." But we do not believe that Medical men are, except in comparatively rare instances, guilty of ignoring their responsibilities on this subject; and we believe that where alcohol has been prescribed in large quantities for patients, they almost always hail with joy the permission to lessen the dose, or to altogether leave it off. Out-of-doors drinking and over-the-bar tippling are by far the most common temptations and the greatest evils, and with these Medical Practitioners have nothing to do, except fight against them. But there never yet was a man or woman who indulged in the over-use of stimulants without having at hand some excuse; and "My Medical attendant ordered it," or "I got in the habit when I was so ill, and the Medical men insisted on my taking so much" wine or spirits, forms a very ready and plausible excuse, though we believe it very seldom has any real foundation. The strain and hurry of life in these

days, whether life be one of pleasure or business, or of both, and disappointments of various kinds, are the main causes of whatever of intemperance or excess in the use of alcoholic beverages exists in the upper and middle classes of society; and we confess that we do not believe that this evil obtains to anything like the extent depicted by writers of sensational articles on "drawing-room alcoholism" and the like subjects.

As regards the "working-classes," while their life is one of excessive labour, misery, squalor, and dirt, they will drink. We shall of course gladly welcome any "wise legislation" on any subject whatever, and do our utmost to further it; and we believe that much might and ought to be done to restrict the use of alcoholic drinks, by lessening the number of public-houses and beershops, and placing them under better and closer supervision. But very much more good would be obtained by education—not mere secular instruction—and by sanitary measures. As long as the poor are forced or allowed to herd together in overcrowded, ill-ventilated, or non-ventilated dwellings, have little water (and that bad), and adulterated food, so long will they crave for the temporary relief afforded by alcohol, and be irresistibly attracted by the meretricious glitter and splendour, space, and sociability of the public-house. Give them decent house-room, unvitiated air, pure water, and good food—however coarse—and they will much more readily recognise and be taught the duty and advantage of temperance, and the evil of "drinking"; and the public-house will cease to be so attractive.

We hold, of course, that "every Medical Practitioner is bound to exert his utmost influence to inculcate habits of great moderation in the use of alcoholic liquids." We think that the last paragraph of the "Medical Declaration" is rather out of place in a specially Medical document, as it might as well and fittingly be signed by any man or woman, of whatever position or calling; and it appears to us that the first paragraph is so worded as to imply a charge against Medical men which they are very far from deserving. Had it commenced, "As it is popularly believed," etc., or "As it is frequently asserted," etc., we should have had no objection to make, and every Medical man would, we believe, have been ready to give unreserved support to the paper.

COPROLOGIA; OR, TYPHOID IN ITS HOME.

The term Coprology may be applied to that unsavoury, but very necessary, branch of knowledge which treats of solid animal refuse, and the means of disposing thereof. The basis of it is the fact of Nature's ordination that the undigested parts of the food, and certain coloured and offensive secretions from the alimentary canal, are noxious matters which must be discharged. Then they ought to be allowed to be decomposed into their primitive elements, so as to be rendered not merely innoxious, but useful in supplying food to vegetables, and through them to animals and to man himself. How lucidly this has been stated by the illustrious Liebig hardly requires to be told, nor how true it is that it conduces to health and wealth to apply animal refuse to its proper place, and how disease and poverty ensue from any other course.

The more untutored tribes of man take no thought of these things, but unload themselves of their burden anywhere. Gipsies have a certain sense of decency, and, vagabond as their life is, always go to the other side of the nearest hedge. In the Highlands of Scotland the people drop these matters at random. There life is reduced to its rudest elements; the people subsist on fish, milk, and scanty crops of oats, and, having no gardens and no wells, get their water-supply from the nearest burn, into which the excrementitial matter is sure to be washed off the rocky soil; hence, if typhoid is introduced, it is sure to spread. Extremes meet; and the most elaborate arrangement of that beastly device, the water-closet, does but enable the finest lady at a country house to drink her own sewage—as the Highlanders do. So true are the words of Anstey, in the "New Bath Guide"—

> "So while little Tabby, etc., etc.
> The ladies are drinking it out of the pump."

The first literary notice, historically speaking, represents coprology at its climax of excellence. The Hebrew people, when encamped in the Arabian desert, were ordered by the Mosaic law to go forth out of the camp when they relieved nature, and each man to carry a "paddle" or shovel, so as at once to bury the offensive refuse. Till the earth-closet was introduced, no mode of disposing of refuse so cleanly and efficient had been promulgated.

The Israelites were forbidden to befoul their camp—the dwelling-place of man, under the special care of the Deity Unhappily for the human race, no commandment has been so systematically violated. There is no animal that does not strive to avoid this kind of defilement. Little birds, as soon as hatched, led by instinct, protrude their tails over the edge of the nest, so that it may not be fouled. Animals which run about as soon as born show no special instinct of this sort, and do not require it. Not so the carnivora, rodents, and others, whose young are born blind and undeveloped, requiring the shelter of the nest. It is manifest that any nest would be unbearable, if flooded with the ordure of a whole litter of young. But see the provision of Nature! The alimentary excreta of young nurselings never have the offensiveness which marks those of adults, and they are devoured by the mother, just as the afterbirth and secundines are. An old cat, purring with maternal ecstacy, may be seen to roll her kittens, one after another, on to their backs, and to lick the lowest part of the abdomen, lapping up all the infant's urine and fæces with infinite relish. And why not? The kitten has but oxidised some of the nutriment which lately flowed through its mother's veins; and perhaps, on its way toward decomposition, it may be as nutritious as some meat extracts, and as nice to the old cat as putrid game, putrid cheese, Chapzugar cheese, brown cod-liver oil, the "ropes" of a woodcock, and the contents of a lobster's gizzard are to the cat's human masters. Anyhow, the cat buries and hides her own excrement if she can, and goes to a distance to do it. She does not store it in a cesspool as civilised man does, just as the negroes bury the dead bodies of their friends under the floor of their hut!

The philosophical student of that part of biology which we have cleped coprology, will be gratified by many curious notices of it in authors sacred and profane. Stanley, in his very interesting "Lectures on the Jewish Church," tells us that the mystical phrase, to "cover his feet," has reference to a very simple operation of nature. It occurs in the first place in the history of the left-handed man named Ehud (Judges iii., 15), who assassinated the fat Moabitish King Eglon with a long dagger, which he buried, blade, hilt, and all, in his belly. He gained access to the King in a kind of summer-house, and, having done the deed, made his escape. The servants supposed their master was occupied with the calls of nature, and wondered that he was so long, and "waited till they were ashamed," as it significantly says; then they went in, and found him dead. The other instance is that of King Saul, who turned aside for this purpose (παρασκευασάσθαι, LXX.) into a cave, in the recesses of which David and his men were concealed.

In the cities of the East, the inhabitants resort to the flat terraces on the roofs of their houses, where the material is soon dried by the heat of the sun, and often is used for fuel, as narrated in Ezekiel iv., 9. In India the poorer people at this day go out into the fields, where their droppings are greedily devoured by pigs. In many Italian towns the poorer people resort to lanes and byways, where the lank-bellied pigs who are usually led out to feed, with a string round their necks, by an old woman or girl, perform the same office. The bacon

is delicious, and we suppose the entozoa are salted and smoked to death. In the better class of houses in Italy, the arrangements seem to have been the same two thousand years ago as now. At Pompeii, where there was a regular service of water conducted through underground leaden pipes, and a similar system of sewers, there were, as we were informed on the spot, *cloacæ* on the upper floor of the houses, leading down, through a brick shoot constructed in the wall, to the sewer beneath; yet they were refined enough to use the *lasanum*, or close stool, as may be read in Petronius Arbiter's comical account of Trimalchio's supper. Similar shoots exist in the substance of the walls of the magnificent *palazzi* of the Italian cities. The upper aperture or seat is often placed in the queerest situations—in the kitchen near the fireplace, in bedrooms or offices, and often, of course, at the very top storey of the house, which is let in *flats*. A very odious construction exists in Switzerland, where a rough shoot, constructed in the wall, leads to a cesspool just outside the house, which is occasionally emptied, by means of a pump, into a covered cart. A refinement on this practice is the suction of the contents of the cesspool into air-tight metallic vans, exhausted of air. The trapping, or other means of preventing the regress of effluvia, are conspicuous by their absence. Similar rude contrivances existed till quite lately in old houses in the best parts of the West-end of London.

During the middle ages, notices are not unfrequent of the nastiness, not merely of camps, but of towns and castles. In an amusing little book of dialogues for travellers, in Latin, German, French, and Italian, published in 1634, one chapter is devoted to the travel-talk that would be used at inns, and a traveller is represented as saying to the chambermaid—"Ubi est latrina?" The reply is—"Sequere me et tibi viam ostendam; ascendito illuc rectà, invenies ad dextram; quod si eam non videris facile eam olfacies." "Wann ihr's nicht sehet, so werden ihr's wol riechen." The evidence of this quotation shows that the place was upstairs, inside the house, and smelling abominably. Other passages follow which show that the relations of commercial travellers and chambermaids continue to this day as unchanged as the latrines. In ancient castles, where a numerous garrison was confined within very small space, they sometimes used an *oubliette*—a deep trench dug down against the wall of one of the subterranean chambers. Such a place we have seen in the old castle at Dinan and elsewhere. If the castle were surrounded by a moat, a row of perforated seats was established in an overhanging turret; and I have seen notices of the stench and flies bred by this filthy use of the castle ditch, which may be seen in full vigour around the walls of some old French towns—for instance, Vannes, where the filthy projections from the old town walls are in the state they may have been in in the thirteenth century. In one of the accounts of Mary Queen of Scots, quoted by Lingard, mention is made of the annoyance caused to the unhappy captive by the stench from the latrines outside her windows at Fotheringay. In the better classes of country houses in England one or more outdoor temples of Cloacina were commonly erected; but instead of being frequently emptied and deodorised, they were left for years. A country squire boasted once that his had not been emptied for thirty years! If no water save the urine were poured into these receptacles, they might, beyond their intrinsic offensiveness, do little harm; when floods of water for water-closets were introduced, they were sure to soak into the wells. It is said that the office of this sort erected by William of Wykeham at New College, Oxford, has never been disturbed; there is a huge vault in the chalk, and that which falls into it dries up harmlessly. It is needless to quote the accounts, such as Smollett gives in his "Humphry Clinker," of the contrivances at Edinburgh in the last century, and of the tub thrown out at night—a practice which still exists in full vigour in some picturesque old French towns.

So far we have tried to show that Religion, Authority, and Natural Science prescribe some mode of dealing with human refuse, which shall return it at once harmlessly to Mother Earth. But that these laws have been incessantly violated, and the human race habitually poisoned with its own excretions, what a different people we should be!—what griefs and losses we might have avoided! But enough for the present. we must next deal with the more modern form of abomination.

(To be continued.)

THE WEEK.

TOPICS OF THE DAY.

It is with the deepest satisfaction we record that the Prince of Wales has made steady and uninterrupted progress towards health during the past week. Thursday and Friday night were passed tranquilly; sleep was obtained, the suffocative bronchial catarrh and spasm which had given so much anxiety abated, and although the prostration was of course great, yet nourishment was taken, and strength at least was not diminishing. During Friday and Saturday the advantages were maintained. There was quiet sleep on Saturday night; and since then the progress has been satisfactory, although necessarily slow. According to our experience there is no acute disease in which convalescence is sometimes more gradual and protracted than typhoid fever. In many cases this of course depends upon the length of time occupied by the repair of the organic lesions which are the ordinary results of the fever. The separation of sloughs and healing of ulcers, the absorption of effused material in the abdominal and thoracic lymphatic glands, the diminution of splenic enlargement (where it exists), are all processes which require time, and sometimes render convalescence very tedious. But so long as there is no real relapse, no rekindling of the febrile process, and no symptoms pointing to grave abdominal or pulmonary complication, the length of time elapsing before perfect health is regained is not of primary moment. The Prince, we know, has a good constitution. He entered on the fever with a large reserve of strength, which undoubtedly has stood him in good stead; and there is ground for confidently hoping that the days of convalescence may be less in proportion than the duration of the fever.

The groom at Sandringham (Blegg) has died from typhoid fever. He is reported to have been a man of weakly constitution.

We understand that the scheme for a Conjoint Examining Board, drawn up by the Royal Colleges of Physicians and Surgeons, and accepted generally by the Universities, is now under the consideration of the Counsel of the two Colleges. It is greatly to be wished, before the matter goes any further, that the exact position taken by the Society of Apothecaries on the question should be defined. It is certain that no satisfactory Conjoint Board can be obtained without the co-operation of that Society; for so long as the Act of 1815 continues in force, and so long as the Society performs its functions as an Examining Body to the satisfaction of the General Medical Council and the Poor-law Board and general public, candidates for its diploma will present themselves. It will be out of the question to refuse the Licentiates of the Society the right to present themselves for examination for the diploma of any one of the Colleges of Surgeons after the precedent of the last sixty years. The General Medical Council could never assent to such an arrangement after the strong expression it has given to its disapproval of the registration of single qualifications. It should be at once ascertained what are the reasons which prevent the Society of Apothecaries from taking part in the scheme; and, if these are dependent on the construction of the Act of 1815, means should be taken to obtain an alteration of the Act.

ROYAL COLLEGE OF SURGEONS.

THE following is an abstract of the unconfirmed proceedings of the Council on the 14th inst., passing over those portions which have already appeared in the *Medical Times and Gazette*. The report from the Committee on the wording and mode of issuing the several College diplomas was read and adopted, viz.:—"That in the opinion of your Committee each of the several diplomas granted by the College should be issued on the direct authority of the Council, be signed on behalf of the Council by the President, or in his absence by one of the vice-presidents, and bear the College arms; and that the wording of each diploma should be altered accordingly." The Dental Diploma is to be altered, bearing the College arms, and to be signed by the President. The following resolutions involving slight alterations in the draft scheme for an Examining Board for England, viz. :—"That, in pursuance of the opinion of the Committee of the two Colleges, Clause X. altered as follows be approved—'That every matriculated student of an English University who shall have completed the curriculum of study required by his University, and shall have passed such an examination. etc.' That, in pursuance of the opinion of the Committees, the suggestion of the University of London that the nomination of Examiners should take place annually, be adopted, provided that the two Corporations, the Colleges of Physicians and Surgeons, can legally give effect to it." The President reported that a vacancy would take place in the Court of Examiners on the 2nd proximo, and that a special meeting of the Council would be summoned for filling up the vacancy; whereupon the following letter was read from Mr. Cock :—"My dear President,—Although my virtual retirement from the Court of Examiners took place at the last meeting, when I received such kind expressions of feeling from my colleagues as I can never forget, I believe it right that I should inform you that it is not my intention to be a candidate for the next election.—Yours ever truly, Edward Cock." Read, a correspondence with the solicitor on the subject of the oath hitherto administered to Members of the Council and of the Court of Examiners, on their accession to office, when the President stated that, in pursuance of the opinion of the solicitor, a declaration in the terms proposed by him would in future be substituted for the oath. Mr. Charles Hawkins brought under the consideration of the Council the question as to the advisability of placing those who pass the examination for the Fellowship in classes according to merit; and, the Council having discussed the question, the subject was allowed to drop. Mr. Gay, in pursuance of his notice, moved that the proportionately large number of rejections at the preliminary examinations for the diplomas of the College was a fact which demanded the serious consideration of the Council, and that a Committee be appointed to consider the subject and report to the Council. On the motion being seconded by Mr. Wilson, an amendment was proposed by Mr. Simon, and seconded by Mr. Erichsen—"That it be a further reference to the Committee appointed on December 9, 1869, 'to consider and report to the Council on the means offered to the students entering the Medical Profession for passing examinations in general knowledge,' to consider the causes of the large number of rejections which take place in the preliminary examinations of the College, and to report thereon to the Council." The amendment was carried, and Mr. Gay appointed a member of the Committee. Mr. Erichsen gave notice of the following motion :—"That, on the occurrence of a vacancy in any Professorship or Lectureship in the College, with the exception of that of Hunterian Orator, due notice be given of such vacancy by advertisement in such journals and at such times as the President shall decide, and that candidates be invited to apply for such vacancy." Sir James Paget gave notice of the following motion :—"That it is desirable that, before proceeding to any nomination of members for election to the Fellowship under the fifth clause of the Charter of 1852, the Council should determine the conditions under which the election should take place." Mr. Charles Hawkins presented one of the extremely rare medallions by Tazzi of John Hunter, and also a bronze Brodie medal.

THE HUNTERIAN MUSEUM.

THIS collection, so rich in specimens of the *Cetacea*—an order upon which Professor Flower has expended so much labour—has lately had another rare and valuable addition made to it through the liberality of Professor Wilson, F.R.S., who purchased and immediately presented a fine specimen of the *Berardius Arnuxii*. In describing this genus, the Conservator of the Museum states it was founded by Duvernoy, upon a skull received at the Museum of Paris in 1846, obtained from an animal stranded in Akaroa Harbour, New Zealand. In the name of *Berardius Arnuxii*, conferred on it by Duvernoy, the captain of the French corvette *Le Rhin* (Berard), and the Surgeon (Arnoux), who jointly presented the specimen, with some others of considerable interest, to the Museum, are commemorated in zoological literature. Only three other specimens of this animal have since been seen, and all on the coasts of New Zealand. One in 1862, embayed in Porisura Harbour, was converted into oil, and can only be conjectured to have been a *Berardius* by its dimensions and a slight description published by Mr. Knox. In January, 1870, another was taken in Worser's Bay, near the entrance to Port Nicholson, and its skull and some bones were preserved for the Wellington Museum; and, lastly, a specimen of this fine animal, which is thirty feet long, and, after *Hyperoodon latifrons*, the largest of the group, ran aground on the beach near New Brighton, Canterbury, in December, 1868, where it fortunately came under the notice of Dr. Julius Haast, F.R.S., the Curator of the Museum at Christ Church. It is the skeleton of this animal which has lately been placed among the fine series of cetaceans in the Museum of the College of Surgeons, thanks to the liberal desire of Dr. Haast that it should be made as available as possible for scientific examination, comparison, and description, and to the generosity of Mr. Wilson, a member of the Council of the College. A detailed and fully illustrated description of this skeleton formed part of a communication to the Zoological Society, and will appear shortly in the *Transactions*, from the able pen of Professor Flower.

HEALTH OF SAILORS AND SOLDIERS.

DR. T. GRAHAM BALFOUR, F.R.S., Deputy Inspector-General of Army Hospitals, and head of the Statistical Branch of the Army Medical Department, read on Tuesday evening, the 19th inst., before the Statistical Society, an able and most interesting paper on the "Comparative Health of Seamen and Soldiers, as shown by the Naval and Military Statistical Reports." On comparing the infantry regiments in the United Kingdom between 1859 and 1868 with the naval force on the home station during the same period, it appears that the sickness in the navy, as measured by the admissions into Hospital, has been one-fifth, and, by the proportion constantly sick, 1·20 per 1000 of the strength higher than in the army; and the deaths from all causes to have been ·48 per 1000 higher; but the invaliding to have been about 1 per 1000 lower. Excluding accidents and injuries, which are much more frequent in the navy than in the army, the admissions into Hospital of sailors have been one-ninth higher; but the deaths have been ·70, and the invaliding on account of disease 2·28 per 1000 of the strength higher among the soldiers. The difference in the rate of mortality may probably be to a great extent accounted for by the difference of age in the two services, the proportion of boys—at that age when mortality is at its minimum—being 10 per cent. of the force in the navy, and a little above 3 per cent. in the infantry. The excess of admissions in the navy has been chiefly in miasmatic diseases, particularly eruptive fevers, dysentery, and diarrhœa, sore-throat, and erysipelas, diseases of the respiratory and digestive

systems, in boils, abscesses, ulcers, and in accidents; while in the army there has been an excess in ophthalmia, venereal diseases, and the group of unclassed diseases. The influence of diet in the causation among sailors of diseases of the digestive system and of the skin has frequently been observed. On the home station the admissions from dyspepsia in the navy were 37, and in the army 13 per 1000. Colic, also, caused 10 admissions per 1000 in the navy, and 3 in the army. On the home station the navy enjoyed a marked exemption from tubercular diseases; the admissions from consumption were 4, and the deaths ·40 per 1000 of the strength lower than in the army. The invaliding for tubercular diseases was also 1 per 1000 lower than in the army. On the Mediterranean station, however, tubercular diseases were rather more prevalent and fatal in the naval than in the military force, and the invaliding for these diseases from the former was more than thrice as high as from the latter. Delirium tremens and epilepsy appear a good deal more prevalent in the navy than in the army. Thirty-five years ago, when public attention was first thoroughly directed to the consideration of the health of the army, and of the means necessary to improve it, the mortality, so far as could be ascertained from the imperfect data, amounted to at least 3 per cent. annually; on the average of five years—1865-69—it was under $1\frac{3}{4}$ per cent. Taking the strength of the army, exclusive of colonial corps, from the army estimates for 1871-72, as 184,000 non-commissioned officers and men, the difference in the mortality represents a saving of above 2300 lives annually—a saving of no small importance, and representing, even at the lowest estimate of the cost of production of a trained soldier, a large sum of money, which would be necessary to replace these men. It must not, however, be supposed that this money-value has been all realised in a reduction of expenditure—many of the improvements referred to have been effected by means of a large outlay; but even after making a very liberal deduction on this account, there will still remain a considerable pecuniary saving as a result of these measures. It should also be remembered that another consequence of this judicious expenditure has been to remove some of those objections to service in the army which rendered it unpopular, increased the difficulty (and consequently the expense) of recruiting, and deterred a better class of men from joining its ranks. In the discussion which followed Dr. Balfour's Paper, Dr. Webster, Dr. Mackay, R.N., Dr. Mouat, Inspector-General Lawson, Mr. Rawlinson, and other members and visitors took part.

RUMOURED CHANGES IN THE BENGAL MEDICAL SERVICE.

For some time past rumours have been circulated, and paragraphs have been going the round of the newspapers, to the effect that the Bengal Medical Service is about to be abolished, the Medical arrangements of the native army handed over to the Inspector of her Majesty's British Forces, a Civil Medical Service organised, and that the members of the present Service are to have the option of electing for one or other department. Quoting from the *Pioneer* of India, we have on late occasions commented on the anticipated change. It appeared to us that the alteration was neither politic nor just, and we echoed the wish of the *Pioneer* that the Government would exercise a wise and liberal treatment under the circumstances, and "render the death of the fine old Service as easy as possible." The *Indian Medical Gazette* disputes the authority of the *Pioneer* for making the statement. The remarks of our Indian contemporary are so just and to the point that we cannot do better than reproduce them in our pages, endorsing the views expressed most heartily. With respect to the "reasons" which are advanced for the change, our contemporary observes—

"They are not very strong and well-founded. The mischievous consequences of promulgating, with an air of authority and certainty, announcements of this kind, can hardly be overrated. Men's mind become unsettled, and the steady, contented performance of duty becomes most difficult, while feelings which perhaps had better not exist are engendered. We have become aware that the members of the Medical Service have read these newspaper paragraphs with most serious apprehension, and we have received letters regarding them which show that a strong and very general feeling of doubt and anxiety exists. It were well could this feeling be allayed by an announcement of greater authority than that which excited it. All the inquiries which we have been able to make have given no confirmation of the rumours of impending dissolution of the Service, which have been so industriously circulated of late, and we, further, feel assured that Government will never require men to 'elect' for anything whose conditions have not been placed before them in detail, nor ask a certain proportion of the Medical officers of the Indian Medical Service to surrender their commission and the covenant under which they entered the Service, without providing and offering a full and fair equivalent. We shall return to this subject in our next number, but, meantime, would counsel men to disregard these rumours until some stronger earnest of their truth exists than a second-hand newspaper paragraph, which bears improbability on the face of it."

After this protest in the name of a number of the best Medical officers in the Indian army, we trust that the "rumours" and "paragraphs" are without any legitimate foundation. It is impossible to forget that in the Indian Medical Service there have been men who have not only done honour to that Service, but have shed a lustre on Medical science generally. It is hardly necessary for us to refer to such men as Robert Jackson or Ranald Martin. These two men have done as much for Military Surgery in the far East as Larrey did for the soldiers of the Great Napoleon in the most important and successful of his military campaigns. To "shelve" men who tread in the footsteps of these great soldier-Surgeons would be a disgrace to the Indian Government. From the time of Clive to the present moment the prestige of the Indian Medical Service has been sustained with a knowledge of the necessities and duties of that Service with unflinching fortitude, and an ability that has never been surpassed. "The Company" must be fully cognisant of this fact, and it cannot be supposed that they would attempt to ignore it. The history of our Indian empire is pregnant with examples of the services which had been rendered by Indian Doctors to the progress of civilisation in that great empire.

A STIMULUS TO EXERTION.

With a view to extend the practice of vaccination as far as possible, the Newtown Board of Guardians have resolved to appoint the registrars of the various districts to be vaccination inspectors. In order to stimulate them to an efficient performance of their duties, they are "to be allowed one-fourth of the fines inflicted for neglect of orders, for their services."

EDINBURGH ROYAL INFIRMARY.

At the recent election of Superintendent of the Edinburgh Royal Infirmary, out of 146 candidates, the final ballot, by a majority of one, was in favour of Staff Surgeon-Major C. H. Fasson, who is now stationed at Woolwich as Registrar of the Herbert Hospital. Surgeon-Major Fasson has justly earned the reputation of an efficient and zealous officer in the Army Medical Department, and we believe the directors of the Edinburgh Infirmary may be congratulated on having secured his services in the administration and superintendence of that establishment. His election to this important post will, of course, render it necessary for Surgeon-Major Fasson to retire from the Army Medical Service, and this, we understand, he intends to do in February next, on the completion of all his official duties at the Herbert Hospital. We are glad, also, during the present stagnant condition of promotion in the Army Medical Service, to see that the directors of such an important charity as the Edinburgh Infirmary have practically recognised the advantage of having in the person of their Superintendent the combined Professional and military training which the Medical Service of the Army is

peculiarly adapted to impart. We have no doubt that other similar bodies will be found willing to follow the judicious example of the directors of the Edinburgh Infirmary.

TYPHOID FEVER IN LONDON.

It seems not impossible that we may have something like an epidemic of typhoid fever in London; and this is scarcely to be wondered at, looking at the wretched condition of a large mass of the population, and the little care taken in some districts to remove preventible causes of the disease. The following cases of complicated typhoid fever are recorded in the weekly return issued by the Registrar-General, in addition to those printed last week:—A retired grocer, aged 38 years, died on the 15th inst. from "typhoid fever" ten days, congestion of lungs four days; a housekeeper, aged 53 years, on the 14th, from "typhoid fever" thirteen days, pneumonia four days; a blacksmith, aged 37, on the 11th, from "typhoid fever and bronchitis" thirteen days; the son of a packer, aged 3 years, on the 15th, from "pneumonia and enteric fever"; the daughter of a gentleman, aged 7 years, on the 11th, from "typhoid fever" three weeks, congestion of lungs eight days.

SMALL-POX JOTTINGS.

The Sheffield Town Council have resolved to erect temporary Hospitals, in consequence of the spread of small-pox and typhus fever.——Small-pox has broken out in districts in Fulham not before visited by the epidemic.——Four fatal cases of small-pox have occurred in the last fortnight in Newington. ——Small-pox shows great disinclination to leave St. Martin's-in-the-Fields. A fresh case has occurred in Marshall's-court, Bow-street. The Vestry have granted permission to Dr. Skegg, the Medical Officer, to summons owners of property who had taken no steps to comply with the sanitary notices served upon them.——Three deaths occurred last week from small-pox in Poplar Union, and eleven new cases had been brought under notice, and eleven patients were under treatment in North-street Infirmary. Thirty-two persons had been vaccinated in the same period at the public stations.——Small-pox is doing great mischief in Halifax, and there have been many fatal cases.——The disease, which for the past three months has been very prevalent in Belfast, is beginning to decrease, and it is believed the worst is over. The disease, however, is rapidly increasing in Carrickfergus; there are at present fourteen cases in that town.——At Nottingham the small-pox epidemic is still on the increase. There are upwards of 400 small-pox patients in the town, principally in the low-lying and crowded localities, and there are eighty-eight patients in the Workhouse Pest Hospital. The applications for admission to the Small-pox Hospital are so numerous, that the Sanitary Committee will have immediately to build enlarged Hospitals for their reception. The whole of the Post-office *employés* have been revaccinated, as also have the workpeople in several of the large establishments in the town. Objectors to vaccination are being summoned, and a large number of defaulting parents have been brought under the law.——At Wakefield, in the last fortnight, there have been twenty-six fresh cases of small-pox, and the disease is spreading. The Guardians of Wakefield have decided to erect a new infectious Hospital.——The epidemic of small-pox is spreading to an alarming extent in Birmingham; there are twenty-one cases in the workhouse. It is said that most of the patients had been vaccinated. A temporary Hospital is to be erected.——106 deaths from small-pox occurred in the metropolis last week.——In several American cities small-pox is now prevailing as an epidemic.——Dr. Aldis, of St. George's, Hanover-square, reports five cases of small-pox for the week ending the 9th inst., four of which were removed to the Hospital; and six cases for the week ending the 16th inst., four of which were also sent to the Hospital.

THE HEALTH OF BETHNAL-GREEN.

It is marvellous that disease, rife as it is in many of the poverty-stricken and overcrowded neighbourhoods of London, is not more fatal and more prevalent. Mr. Pereira, the Medical Officer of Health for Bethnal-green, reported last week to the Guardians the result of his inspection of the parish. It is scarcely possible to conceive a more frightful state of things, particularly in the wealthiest city of the world. Mr. Pereira says the sights he saw of poverty, filth, disease, and misery completely horrified him. In some of the houses he saw people lying dead in the beds, and others dying. Some of the dwellings were in such a state that he did not believe a scrubbing-brush had ever been used on the floor. In one place he came upon what appeared to be a heap of soot, but on examination he found it was an old counterpane, under which was a woman lying, stark naked, on a hard bed, with a child at her side, whilst the husband, who appeared to be a disreputable fellow, was sitting, smoking his pipe. He had never before the slightest idea that such places of wretchedness were to be found in the parish, and he hoped the Board would use their utmost endeavours to bring about a different state of things.

POISONOUS CONFECTIONERY.

It is remarkable that, as the colouring-matter of confectionery may consist as readily and easily of harmless materials, instead of poisonous, the system of employing dangerous and unwholesome colouring is not extinct. At this season of the year it is particularly necessary to bear this in mind, as effects of a most serious kind may ensue from eating only a small quantity of poison-coloured sweetmeats. A case has just occurred at Glasgow, illustrative of this practice, and deserving of as much publicity as can be given to it. Professor Thorp, of Anderson's University, whilst passing, last week, a pastrycook's shop, observed in the windows a Christmas cake garnished with a very suspicious green-coloured substance. He purchased the cake, and on analysis discovered that the green tint was produced by arsenic. On the following day the Professor's assistant purchased two cakes similarly coloured. The police were informed of the circumstance, and on the shop in question being searched, another cake of the same description was found. The proprietor of the shop admitted that he had painted part of the sugar ornamentation with what is called "emerald green," which he purchased in a drysalter's shop in the city. He was taken into custody pending inquiry.

IMPERFECT INQUEST.

Cavillers at the payment of Medical witnesses for making post-mortem examinations and giving evidence, are reducing the coroner's court (in some instances, at least) to a tribunal whose verdicts are of little or no value. On Monday, Mr. Carter, the Coroner for Surrey, held an inquiry in Bermondsey, touching the death of a male child which was found in a railway carriage at the Bricklayer's Arms station. Mr. Powell, the Coroner's officer, said that the deceased was a full-grown child, weighing eight pounds; he had carefully examined the body, and he found its tongue protruding, its nose flattened, and its lips very much discoloured, showing evidently it had been suffocated. A detective said he had been unable at present to get a clue to the guilty person, but asked the Coroner to adjourn the proceedings. The jury, however, in the absence of Medical evidence, returned a verdict of "Found dead in a railway carriage." Now, here was a death occurring under very suspicious circumstances—circumstances which clearly pointed to murder, and yet a verdict is given which amounts simply to the finding of the body! Human life will not be safe if such verdicts are to be returned. It was the emphatic duty of the jury to have known the cause of death, which they might have known had proper Medical testimony been adduced.

FOOT AND MOUTH DISEASE IN CHILDREN.

THERE seems to be little doubt that a malady very similar to the foot and mouth disease in cattle has been prevalent in some parts of England. It is stated in the *Halifax Courier* of last week that the disease has made its appearance amongst the children of Richard Clegg, a plasterer living at Newtown, near Preston. It is asserted that the malady has been propagated by the milk supplied by a neighbouring farm on which the stock has been affected by the foot and mouth disease.

CAUSE AND EFFECT.

THOSE who doubt the bad influence of imperfect drainage and sewerage may take the following fact, amongst others, to show them their mistake. The town of Salford is one of the most unhealthy in the kingdom, and its death-rate is excessively high. What is the cause? The Borough Surveyor, last week, in his report, stated that in his district there are ninety sewers, which contain from six inches to thirty-six inches of deposit.

WHERE WAS THE DOCTOR?

AT the Lambeth Police-court, on Tuesday last, Mr. Buckmaster, connected with the Department of Science at South Kensington Museum, stated to Mr. Chance that a young lady, in a first-class boarding-school in that neighbourhood, had been removed, during illness, to a miserable cottage away from the school; that this cottage was unfit, from sanitary defects, for human habitation, and the paper was rotting off the walls, mildewed and damaged. In this miserable habitation the young patient was kept; the cold from which she suffered turned into congestion of the lungs, and she died last Friday. Mr. Buckmaster said the young lady was from the country, and tenderly brought up, and the terms of payment at the school ranged from sixty to eighty guineas a year. In addition to the wretched state of the cottage, Mr. Buckmaster said the poor girl was put into damp sheets, in a damp bed. This, surely, is a case for inquiry. We may ask, Who, and where, is the Doctor?

RETAINING A MEDICAL MAN IN OBSTETRIC CASES.

IN a former number (November 3) we published, under the title of "Retaining a Doctor," the report of a trial in the Maidstone County Court—Fitzpatrick *v.* Hadler. The Judge said he would reserve his decision on the legal point until the next Court. That decision has since been given; it is as follows:—"That the engagement to attend the defendant's wife during her confinement, but which the plaintiff had been prevented from performing, owing to the defendant engaging another Medical gentleman, to whom he was man-servant, was only a provisional one, and that if Dr. Fitzpatrick had been more profitably engaged at the time and been sent for, he would not have been liable for breach of agreement." The verdict was consequently for the defendant. It need scarcely be said that the Judge was passing no opinion upon the sacredness of the engagement *in foro conscientiæ*. He simply, after mature consideration, came to the conclusion that the contract could not be enforced by law, evidently, as is to be gathered from his remarks at the first hearing of the case, because "there was no mutual advantage, as was necessary to make a breach of contract—there was nothing mutual." This doctrine is not peculiar to such a case as the present. It affects all contracts or engagements, whether relating to obstetric cases or agreements generally. The law will not recognise a breach of any contract where there has been no legal consideration. The only question in these cases is, whether a promise to attend within a reasonable time after being called upon to do so amounts, in the eye of the law, to a sufficient consideration to support the agreement, though such services were never required, or, rather, were never called for. The Court of Appeal at Westminster alone can decide. County-court judges may differ, and their decisions are only binding when acquiesced in by the litigants without appeal. As, however, the decision of one county-court judge is not binding on any other judge, the Medical Profession need not be alarmed, as if the judgment of the Maidstone judge were settled and indisputable law; but unfortunately there is no appeal as of right from the decision of a county-court judge unless the debt or damage sought to be recovered is above £20; but by leave of the judge an appeal may be allowed in cases where the claim is for a less amount. It does not appear that Dr. Fitzpatrick has asked this leave, which doubtless would be granted, as the judge can only desire that right should be done.

COD-LIVER OIL SOAP.

A PLAN has been proposed by Dr. Van der Court, of the Hôpital St. Jean, Brussels, of giving cod-liver oil in mass, instead of in the fluid form. He adds to the cod-liver oil carefully pulverised slaked lime, little by little, until a pilular consistence is attained. Of the mass thus made four or five grains or more may be given for a dose after each meal. As a flavouring ingredient, he recommends oil of bitter almonds; that, of course, must be prescribed and used with care. The remedy is most useful in the early stages of consumption, less so in the advanced form, and least of all in the galloping variety of the disease. The more chronic the variety of the disease, the more good this remedy may be expected to do. Sometimes it gives rise to diarrhœa; if so, then the pills are to be left off for a time. The taste of the mass is not disagreeable, and the pills may further be coated in the ordinary way.

THE MANCHINEEL OF SOUTH AMERICA.

THIS plant, which is euphorbiaceous, is reported by the natives to be so poisonous as to give off poisonous effects to those who rest under its shadow. This has been denied on good authority, and was recently put to the test by the well-known botanist, H. Karstens. He gathered some of the juice of the tree in the district of La Guayra, and was presently seized with a burning feeling all over his body, followed by swelling especially of the face and eyes. Next day he could not open his eyes, and their irritation was so great that he had to pass some days in a dark room. On the third day the swelling began to abate, and the cuticle to desquamate, after which he gradually recovered. These effects are similar to those produced by other *Euphorbiæ;* but the manchineel (*Hippomane manzanilla*) seems to differ from most in being capable of affecting individuals at some distance. Probably the immediate cause of the irritation is the dried juice, pulverised, and carried by the air.

"THE GARDEN."

THE above is the title of a new periodical conducted by the well-known botanical and horticultural author, Mr. William Robinson. His name will be ample security for the character of the work, for he has already done so much by introducing to our notice so many varieties of beautiful plants—flowers, shrubs, and trees—that we can only be too glad to have the prospect of a continuous rather than an intermittent supply of novelties. To the lovers of gardens and gardening—and their name is legion—this magazine will be most welcome. The first number we have seen contains some admirable hints and some beautiful engravings. We have hints how to plant orchids, how to make and beautify bog-gardens; some notes, to be continued, on the animal pests of gardens; a fine view of the yellow pine of the Yosemite Valley; hints as to indoor gardens; the tomato, and how to use it; with much more we cannot refer to. We heartily commend this magazine to horticulturists, great and small, for all may be benefited by its perusal and study.

MIDDLESEX HOSPITAL.

THE following resolutions have been passed by the Weekly Board and Medical Committee, on the occasion of the lamented death of Dr. Davison:—

"The Medical Committee desires to express its great regret at the death of Dr. John Davidson, late House-Surgeon and Resident Physician's-Assistant, whose intelligence, devotion to duty, high principles, and amiability won the esteem and respect of the whole staff."

"The Weekly Board desire to record how cordially they unite with the expression of sympathy of the Medical Committee at the death of Dr. John Davidson, and their thorough appreciation of his most excellent character and services."

PERIODIC RECURRENCE OF PRÆPATELLAR HYGROMA.

IN the *Berliner Klinische Wochenschrift* for November 27 is recorded a very unusual case from the clinic of Friedreich of Heidelberg. The patient was a somewhat delicate woman, aged 36. She came to Professor Friedreich with both knees alike, but with a history of a periodic swelling of the left knee-joint, recurring every twelve days, lasting for a day or two, and then gradually disappearing. The recurrence did not correspond with the catamenial periods, and was accompanied by violent palpitation. The swelling ceased during pregnancy. In Hospital the swelling came on, the pulse rose, and the patient complained of palpitation. The joint was smooth, pale, and not at all tender to the touch, the patient only complaining on violent flexion. Gradually the swelling disappeared, and, for the time, the patient was well. Loewenthal, who reports this case, conjectures, from certain of its features, that it presents an analogy to Graves's disease, and is due to a temporary neurosis.

FROM ABROAD.—M. HUSSON ON THE MILK IN CATTLE PLAGUE—M. BEAUNIS ON THE WOUNDED ON THE FIELD OF BATTLE.

THE cattle plague (*typhus contagieux*), which prevails now somewhat extensively in France, has given occasion to M. Husson to present a paper to the Académie des Sciences on the ill-consequences which may result from the employment of the milk of the animals suffering under it. It has been pretty clearly proved that neither the flesh nor the milk of such animals will convey the disease, but they both may suffer greatly in their nutritive properties. To enable him to speak decidedly on this last point, M. Husson has analysed milk procured from four cows destined to be slaughtered on account of the disease, from fourteen cows regarded as more or less in a doubtful condition, and from four cows which appeared in no-wise affected. In all three categories the composition of the milk had undergone alteration, containing less butter and sugar of milk in proportion as the cows had suffered from the epidemic influence. As regards its appearance, the milk of the cows supposed to be healthy was normal, while that of the others had a more or less marked reddish-yellow tinge. The flavour of the milk of these cows was disagreeable; but a cat drank fifty grammes of it without suffering any inconvenience. M. Husson concludes from his researches—

"1. When the typhus breaks out in a cow-house, all the beasts therein are subjected, although in different degrees, to the epidemic influence. In fact, in this example, the whole herd died, with the exception of four cows, which never seemed to be ill, although they furnished one of the three specimens of milk analysed. 2. Milk cannot, any more than flesh, transmit the disease to man or to animals that do not belong to the ruminant family. 3. Nevertheless, even during the first stage of the disease, when the yield still continues normal, the milk should not be employed as food for young children, in consequence of the modification that has taken place in its principles. 4. From the commencement of the disease, the combustible elements of the milk in great part disappear, while the azotised elements, on the contrary, are increased in considerable proportions, and are soon found commingled with sanguinolent matters. Frequently there may be observed, under the microscope, agglutinated globules, either mucous or purulent."

M. Beaunis, who took an active part in charge of the wounded, first at Strasburg, and then during the calamitous campaign on the Loire, in an interesting account of this last, now publishing in the *Gazette Médicale*, makes the following observation on the question of dealing with the wounded on the field of battle:—

"This leads me to say a few words upon a question that has often been debated, but has as yet not received its solution—I allude to the removal of the wounded from the field of battle. This problem should not be solved by sentiment, but by facts; and at the risk of shocking respectable prejudices, partaken in even yet, at the present day, by many military officers, I shall frankly state my opinion, and explain its foundations. I do not stand forward lightly in this matter, for I have myself witnessed the facts, and have long reflected upon them, and discussed them with officers and with colleagues. The force of circumstances, then, has impelled me to this conviction, that *the wounded should not be removed from the field of battle until after the action has terminated.* Their removal under the fire of the enemy is an useless and dangerous practice, and, more than that, it is impossible."

In adducing his reasons for this somewhat startling position, M. Beaunis first adverts to the very large number of men who are required for any such attempt, who can only be obtained from the ranks, to the derangement of these, and the encouragement of those who wish to shirk fighting. It is notorious that many more assist in the conveyance of the wounded than are necessary. When two or three men per company are indicated beforehand, or the musicians are so employed, these have been found insufficient, and do not reappear after removing the first wounded. The corps of *Krankenträger*, which it is proposed to copy from the Germans, would require a battalion of 750 vigorous *Brancardiers*, with all their encumbering *matériel*, to be attached to each division, subtracting so many from active service. In the very act of removal, the lives of two valid men, capable of good service, are risked for that of a wounded man, incapable of further service. Leaving the wounded thus is not so harsh a procedure as at first it seems, for it is rare for an engagement to last more than five or six hours; and, if fresh troops prolong the contest, the centre of action becomes displaced. Hæmorrhage is the only source of immediate danger to the life of the wounded. When this takes place from a very large vessel, death occurs before aid can arrive, however prompt; while bleeding from small ones may be arrested spontaneously or by mere compression. For those cases that can only be dealt with by Surgical interference, this, to be effective, either by methodical compression or the ligature, must be immediate—and that is impossible. Although the statistics of the frequency of hæmorrhages are very imperfect, it will be keeping certainly within the truth to say that there are scarcely two or three cases met with among 500 wounded. As to the operations which are termed urgent—such as the extraction of balls, immediate amputations, disarticulations, etc.—there are none of them but can wait a few hours, if not without inconvenience, at least without danger to life.

"Perhaps we should, although very rarely, lose some men who might be saved; but when, without flinching, thousands of existences are sacrificed during a battle, does it not savour somewhat of hypocrisy to make so much noise about arriving at such a result? We must look at war with coolness and with resolution. The cruel truth is this—human life during the combat is as nothing—everything disappears in the face of the supreme necessity of conquering; all that retards victory must be cast aside. It is no longer a human life, but an *impedimentum*. Speak not of humanity. Humanity should consist in not going to war; but, once made, this must be carried to its bitter end. The battle once over, things are entirely changed. Throw now into the field of battle every disposable man, all your Surgeons, all your *infirmiers*, and you will be able in a few hours to furnish all the wounded with succour far more efficacious than the imperfect

and hasty aid given during all the embarrassment of the action. Moreover, the removal of the wounded from the field during the battle is a myth, by which the popular imagination and sensitive hearts are soothed. In fact, it does not exist. Never have I seen an ambulance remove the wounded under the fire of the enemy. Those who say they have done this are imposing on us; or if they have really done it they have committed an act of madness. Ambulances have causes enough of disorganisation, and run dangers enough without creating them needlessly. If from the first battle they had acted thus, not a soul connected with them would now be alive. Still, is there nothing to be done to give these men condemned to death some chance of safety? Perhaps so; but then it must be sought from a different organisation. We may place in the soldier's knapsack, as is done in Germany, a bandage, a compress, and a little charpie, so that if wounded he may be able in some cases to aid himself at first."

MEDICAL DECLARATION RESPECTING ALCOHOL.

As it is believed that the inconsiderate prescription of large quantities of alcoholic liquids by Medical men for their patients has given rise, in many instances, to the formation of intemperate habits, the undersigned, while unable to abandon the use of alcohol in the treatment of certain cases of disease, are yet of opinion that no Medical Practitioner should prescribe it without a sense of grave responsibility. They believe that alcohol, in whatever form, should be prescribed with as much care as any powerful drug, and that the directions for its use should be so framed as not to be interpreted as a sanction for excess, or necessarily for the continuance of its use when the occasion is past.

They are also of opinion that many people immensely exaggerate the value of alcohol as an article of diet; and since no class of men see so much of its ill effects, and possess such power to restrain its abuse, as members of their own Profession, they hold that every Medical Practitioner is bound to exert his utmost influence to inculcate habits of great moderation in the use of alcoholic liquids.

Being also firmly convinced that the great amount of drinking of alcoholic liquors among the working-classes of this country is one of the greatest evils of the day, destroying, more than anything else, the health, happiness, and welfare of those classes, and neutralising, to a large extent, the great industrial prosperity which Providence has placed within the reach of this nation, the undersigned would gladly support any wise legislation which would tend to restrict within proper limits the use of alcoholic beverages, and gradually introduce habits of temperance.

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William Fergusson, Bart., F.R.S.
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Bell Fletcher, M.D.
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Thomas Taylor Griffith, F.R.C.S.
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Joseph McCarogher, M.D.
William Macturk, M.D.
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Thomas Turner, F.R.C.S.
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George Wharton, M.D.
John Whipple, F.R.C.S.
M. A. Eason Wilkinson, M.D.
Edward Williams, M.D.
John Bramston Wilmot, M.D.
Richard Thomas Woodhouse, M.D.

PRELIMINARY EXAMINATIONS.—The examinations in Arts, etc., for the diplomas of Fellowship and Membership of the Royal College of Surgeons, was commenced on Tuesday last, and only brought to a close last night. There were 288 candidates—viz., 68 for the first-named distinction, and 220 for the latter. Owing to the large number of papers to be read, the result cannot be known until the middle of the ensuing month.

GENERAL CORRESPONDENCE.

THE DECLARATION RESPECTING ALCOHOL.

LETTER FROM DR. LIONEL S. BEALE.

[To the Editor of the Medical Times and Gazette.]

SIR,—I am very sorry to differ from my friend "F.R.S.," and am aware that the declaration was signed by many in the Profession, for whom all of us entertain the greatest respect. Perhaps I am altogether wrong in obtruding my views upon your notice, and in expressing my disapproval of that declaration, and I am doubtless open to the charge of presumption. Perhaps it would have been better to have signed the document and said nothing; for no one desires to see the healthy working public reduce its consumption of alcohol more than I do. I live almost without alcohol myself, but I do not think people can be made temperate by declarations, and am of opinion that if such machinery could do real good its efficacy would have been proved long ago. The truth is, I felt offended at the assertion made by the gentleman who brought the paper to me to sign, and the suggestion implied in the declaration itself, that there were in the Profession so many who prescribed alcohol *inconsiderately* that those who did not do so were called upon to express in a public document their condemnation of the circumstance. It crossed my mind that, but for the accident of the declaration having been brought to me to sign, I might myself have been put down as an inconsiderate prescriber of alcohol, and a reckless exciter of habits of intemperance. The number of inconsiderate prescribers amongst us ought, indeed, to be very large to justify such a proceeding as that which has been taken. My friend says, "I know personally some such cases, and I presume instances of the kind must have occurred to many." I have not known such cases myself, and I have no reason to presume that the instances are so numerous as to justify me in signing the document. "F.R.S." thinks that "habits of temperance" are to be introduced by wise legislation; others consider that habits of temperance will not in England be enforced by law. I venture to think that habits of temperance may be inculcated in this country to some purpose by personal influence; but I fear that not until the views entertained by temperate persons are thought a little more of than they are at this time, will such change for the better be brought about. Of late years, very little has been done to strengthen the only efficient machinery we have that can be brought to bear upon the erring individual; and if the public did what it could to second the efforts continually being made by men whose services in the cause are less acknowledged than they deserve, it would perhaps gain the end it seems so much to desire. There is hardly a clergyman in the country who does not his whole life long wage war against intemperance. He sees the habit being gradually acquired by the individual man, and does his utmost to avert the catastrophe. Is it not probable—but I hardly dare venture the suggestion—that, if public opinion in the village, town, city, and country would but give its support and approval to his efforts, and work with him in the same direction, the number of drunkards in England would soon be reduced, and the rising generation made healthier and happier than this one and some of its predecessors?

I am, &c., LIONEL S. BEALE.

DISTRICT MEDICAL OFFICERS AS OFFICERS OF HEALTH.

LETTER FROM DR. H. W. RUMSEY.

[To the Editor of the Medical Times and Gazette.]

SIR,—Any remarks by Dr. Druitt on the Health Officer question claim respectful consideration. His great personal experience and his acknowledged authority in matters of public Medicine render his recent address on this subject a document of much interest to those who are endeavouring to promote a better system of sanitary organisation. His description of the confusion, incompleteness, and administrative failures which have characterised the Medico-sanitary arrangements of the metropolitan districts is not less true than instructive; and when he declares it to be "the bounden duty of every Medical Officer of Health to make himself acquainted by personal inspection and measurement" with various particulars, which he minutely specifies, concerning "the house-accommodation of all classes" in his district; he would probably admit that much of this information would be obtained by Health Officers "of the first instance"—that is, by those who would be called, on another system, "Deputy Officers of Health." These, as district Surgeons, would, in fact and in reason, combine curative duties with those of domiciliary inspection and prevention.

Dr. Druitt has also done well to negative the objectionable proposal to separate public Medical duties under the Poor-law from private Medical practice. This project has been, I venture to say, completely disposed of by "A Member of the Joint Committee" in the *British Medical Journal* of November 11, ult. So far, then, we are agreed; and no one has put the case of the District Medical Officers more fairly and reasonably than Dr. Druitt.

It is when he comes to treat of the superior Officers of Health that he appears to be at fault, indecisive, and not always consistent. His notions are apparently limited by his metropolitan sphere of observation. The great majority of the Joint Committee of two great associations appointed to consider this question would, I believe, differ from his conclusions. It is true that, in approaching this part of the subject, he demonstrates the existing necessity for, and affirms the "immense benefit" of, some kind of inspectorial visitation by a superior officer. But when he proposes that the whole of the work, curative and preventive, of the District Medical Officers, or Local Surgeons, as he prefers to call them, should be subject to the "inspection and criticism" of a "superior civil Practitioner," or "civil inspecting Practitioner," he strikes on a rock that will, I believe, sink his vessel of reform.

The District Medical Officers of the provinces certainly do not require, if they would tolerate, an inspecting Practitioner to criticise their curative efforts. They might be thankful for the aid of a pure Officer of Health, in the position of Dr. Trench, at Liverpool, who, being debarred from private practice, can in no sense become their critic or their rival—they might be thankful, I say, for the benefit of an arrangement which, in Dr. Druitt's own words, "would relieve them of the trouble of instituting law proceedings, and of the embarrassment of offending friends and patients"; but such an arrangement need not involve the interposition of another "Practitioner." Indeed, to commit these superior inspecting duties to any Practitioner would be to place him in the same dilemma from which Dr. Druitt wisely desires to "relieve" the district Surgeon.

When, moreover, I read the category of "possible duties" for his "real Medical Officer of Health," I cannot doubt that the engagements of private practice would be, to such an officer, anything but a support and encouragement in his official labours—anything but an aid to his preventive and scientific pursuits—anything but a benefit to the public, who should have a claim to his whole service.

Then as to special fitness for work. That pathology on the one hand, and chemical and physical science on the other, are equally good qualifications for the superior officer, may be granted, without consenting to dispense with either. A thorough knowledge of both would generally result from the "brains" which Dr. Druitt very properly prefers to mere acquirements. No one, however, could obtain the new diploma in State Medicine at Dublin without brains enough to make good use of it.

I am struck with Dr. Druitt's remark on Mr. Simon's suggestion, that the Medical Officer of Health might be advantageously connected with a Hospital, though he were debarred from private practice. Dr. Druitt thinks that the duties of the Hospital Physician or Surgeon to his patients and his pupils, and the regulations of the governors, "might quite as much interfere with urgent sanitary business as might the much more elastic attendance on private patients." No doubt Hospital work may encroach on public sanitary duty. But in this estimate he seems hardly to recollect that the ordinary duties of the superior or inspecting officer, to whom he refers, would not be of an "urgent" kind, and, however arduous, are almost all capable of methodical arrangement; moreover, that the duties of a Hospital Physician are also regulated systematically, and are shared by colleagues; whereas the casual demands on the time and effort of a consulting Practitioner are often remarkably sudden, uncertain, and imperative, and, therefore, far less compatible, even on that ground, with official duty.

Dr. Druitt nowhere seems to acknowledge that the sanitary interests of the public, and the moral independence of the chief officer, are likely to suffer from that domination of personal interests which is inseparable from private practice. On this point the report of the Joint Committee, of which, though a

member, he takes no notice, is sufficiently strong to convince any unprejudiced mind. In the same number of the *Medical Times and Gazette* which contains Dr. Druitt's address, fortunately appears a letter from Dr. Joseph Rogers, who puts this view of the case very forcibly. His objections to curative duties being superadded to those of control and prevention in the higher class of Health Officers, are, to my mind, unanswerable.

I do not believe that anyone who reflects on the circumstances of the assumed precedent, cited by Dr. Druitt, would admit that Sir James Clark's early appointment as Consulting Physician to the parish of St. George's, Hanover-square, "foreshadowed," in any degree, the appointment of a chief officer in legal and preventive Medicine. None of the duties or responsibilities of such an office fell to Dr. Clark. This is just one of those cases which, by being cited inappropriately, obscure the question at issue. The real objections to the combination of private practice with the inspecting office may be evaded, and its dangers may be ignored, by those who have made up their minds not to perceive them; but they have now been made sufficiently manifest, by free inquiry and open discussion, to warn our legislators against any measure of sanitary organisation which does not practically admit those objections, and does not guard the community against those dangers.

I am, &c.,

December 16. H. W. Rumsey, M.D.

AUTHOR *v.* CRITIC.

Letter from Dr. A. S. Donkin.

[To the Editor of the Medical Times and Gazette.]

Sir,—I have read a review of my recent work "On Diabetes and Bright's Disease" in the *Medical Times and Gazette* of December 16—a review in the highest degree objectionable, inasmuch as it tends, by a suppression and perversion of facts, to mislead the minds of your readers as to the character of my book. By this grave charge I mean that your reviewer attributes to me "inaccuracies and deficiencies" which, on a careful examination, I find I have not committed; but which, on the contrary, only exist in his own imagination, and are in reality, to use the mildest expression, misrepresentations. Surely if I can establish this charge, on the clearest evidence, I have just ground for complaint and for recording my protest against a hostile criticism altogether unwarrantable and unjust.

I shall now proceed to dispose of the whole of the strictures, *seriatim*, of which I complain, and leave your readers to decide the points at issue between us.

In the first place, I am accused of ignorance of the existence of sugar, or a copper-reducing body, in normal urine; but on what grounds this gratuitous assertion is made, I myself am ignorant, inasmuch as I have not given any description or analysis of healthy urine in my book, it not being a treatise on the physiology and chemistry of the urine. I assumed the possession of a knowledge of this subject by my Professional readers, who must be well aware that the presence of sugar in healthy urine is almost inappreciable, even by the most delicate reagents.

Secondly, I am taken to task for not having referred to Fehling's test for urine sugar, which, it is averred, is "nowadays most frequently employed." To this objection I must reply, that I still adhere to the statement made in my work, that Moore and Trommer's tests are amply sufficient for clinical purposes, though not the most delicate. Is your reviewer aware that Fehling's test is condemned by no less an authority than Professor Vogel, of Halle, as being too complex and difficult for the ordinary use of the Physician? (See *Virchow's Handbuch der Speciellen Pathologie und Therapie*, Band vi. 2, 4, p. 504.)

Thirdly, your reviewer deliberately makes the following statement:—"The two means most commonly used for the quantitative estimation of sugar are fermentation or the polariscope. According to Dr. Donkin, neither of these is in use. He relies on specific gravity alone—surely a most unsatisfactory way of estimating sugar." Now, against this I must protest in the strongest terms, as a misrepresentation of the most unwarrantable description of what I have actually stated on this subject in my work, as will appear from the following passage literally quoted from page 89:—"As already stated, increase in quantity and elevation in density are conditions generally co-existent in the urine of diabetics, so that the degree to which they are developed supplies a very reliable practical guide as to the quantity of sugar voided in any particular case, and an index by which we can safely predicate whether the amount is small or large; but when it is considered necessary to determine the exact quantity of sugar in any given specimen of urine, we must have recourse to a more definite procedure. For this purpose various methods are employed. One of the simplest and most ingenious is the beautiful apparatus invented by Soliel, and named the polarising saccharimeter, by which the quantity of sugar is accurately measured by the degree of polarisation produced." I must therefore request the reader to blot out this inexcusable misrepresentation on the part of the reviewer.

Fourthly, I am censured for having "merely recorded the experiments of Dr. Sidney Ringer (Mr. is a misprint), as quoted by Dr. Parkes," instead of having instituted investigations of my own, for determining the quantity of urea excreted in the urine in diabetes. Unfortunately this is another misrepresentation on the part of the reviewer; the truth being, that I refer to the experiments of Dr. Parkes and others on this subject, but not to those of Dr. S. Ringer. Those of the latter, quoted by Dr. Parkes, are referred to in my book merely to show the influence of nitrogenous food on the excretion of urea, and not of the disease itself.

Fifthly, I am censured for not having advanced anything new concerning the pathology of diabetes; having submitted instead "the observations of others alone." This statement compels me to believe that the reviewer has not read much of my book; otherwise he could not have entirely ignored my observations on the mal-assimilation of fat in diabetes, which is certainly a pathological question to which I have specially directed the attention of the Profession as a subject of the utmost practical importance, and one entirely new.

Sixthly, I am accused of having referred to a certain contribution by Grohe "in the following cabalistic formula—'Greifswald's Medicinische Breiträge,' B. iii. ii. i." Now, this induces me to ask in what quarter of the scientific world your reviewer has been asleep, that he is ignorant of the University of Greifswald, from which the late Felix Von Niemeyer, as a Professor of the Institution, issued the earliest edition of his now celebrated treatise on Pathology and Therapeutics, and from which, also, Bardeleben, another Professor, first produced his valuable "Handbuch" on Surgery? Surely he cannot be ignorant of the fact that Grohe is a Professor of this University, and that his contribution on diabetes, to which I have referred in my book, is not apocryphal, and that the quotation of it is not "cabalistic."

Such, then, is the complete catalogue of the errors and omissions (and I presume the most flagrant have been selected for exposure by your reviewer) for which I am censured, and on account of which my book is mercilessly condemned as being "poor in quality and insufficient in quantity on anatomy, physiology, pathology, and things in general." But I shall leave it to others to decide from the above defensive observations whether I or his judgment is at fault. Surely, he was morally bound, in justice to my reputation, to have been prepared with reliable and more weighty evidence in support of the opinion he has expressed, and to have shown a more scrupulous regard for accuracy and impartiality in his criticisms.

I am, &c., A. S. Donkin, M.D.

8, Park-terrace, Sunderland, December 18.

WALTER COOPER DENDY.

[To the Editor of the Medical Times and Gazette.]

Sir,—As I am mentioned as one of the executors of the late Walter Cooper Dendy, in the very interesting account of him in your last number, I venture to send you the following remarks:—That account, on the whole, gives, I think, a very true impression of Mr. Dendy, but is not strictly accurate in one or two particulars. "J. F. C." says: "I believe he never gave a private dinner-party to his friends." I myself have repeatedly been present at dinner-parties at his house, and a mutual friend spoke to me only the other day of Walter Dendy's small dinner-parties as among the most agreeable at which he had ever been present, and as perfect in their way. The "Presidential dinner" would not have been what "J. F. C." describes it, if it had been so entirely exceptional as he supposes. Again, the statement that Mr. Dendy "had no amusements out of doors" is not correct. He was fond not only of out-of-door studies, but also of fishing and cricket. He was, moreover, a very considerable traveller, going over a great deal of ground in a short time, and contriving, nevertheless, to bring home many sketches by his own hand. And here I may mention that, apart from travelling, he had very

remarkable geographical knowledge. By the study of maps and descriptions he was able, to a degree I have never known equalled, to realise scenes which he had not personally visited. In talking with him about tours of my own I have frequently been astonished at the accuracy of his conception of places he had never seen—of views from mountains, etc. After the marriage of his brother, some seventeen or eighteen years ago, he gradually became the recluse he was in his last years. "J. F. C." says—"I understand it is the intention of his executors to publish a posthumous volume of his writings." What the executors may do in this respect, I know not; but at present they have not given the subject any consideration. Finally, I am represented as having been unable to "convince myself that Dendy was dead," and as having "positively insisted that he should be examined in his coffin by some Medical gentleman." This is founded on some misapprehension. The facts are simply these:—Finding that his Medical attendant had not seen him since his death, I said I thought he should see him, as a proper thing in every instance. I did indeed notice that Mr. Dendy's forehead was not so cold as might have been expected; but this was easily accounted for. Personally, I had no doubt whatever of his death. I wished him to be seen by his Medical attendant, in accordance with my general rule in such circumstances, when any responsibility rests on me. In my own circle of acquaintance, there have been two cases in which persons have been left for dead by friends and nurses, and have still recovered. In some, if not all, towns in Germany, no interment is allowed to take place without a certificate of death by a Medical officer appointed for the purpose. I think this an excellent regulation. With these trifling exceptions, the notice in your pages of Walter Cooper Dendy is, I believe, as faithful as it is interesting.

I am, &c.,

December 18. T. S.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

TUESDAY, DECEMBER 5.

Mr. HILTON, F.R.C.S., President, in the Chair.

DRS. POWELL and WHIPHAM read a Report on the Specimen of Lung and Kidney submitted to the Society by Mr. Squire. In the lung fibroid and adenoid tissue seemed to be increased around the alveoli. In the kidneys the epithelium was affected, and the Malpighian tufts were amyloid.

Dr. C. T. WILLIAMS reported for Dr. Quain the case of a man sent to Dr. Quain by Mr. Wilks of Salisbury. The patient died of Dilatation of the Aorta, its walls being atheromatous, and the left coronary blocked. There was also fatty degeneration of the corresponding ventricle. The patient was a middle-aged man—a gardener, who worked much in stovehouses. He had latterly lost flesh and colour, and had suffered from dyspnœa. He had some fulness in the neck, and a prominence on the right side of the sternum. He suffered much from angina, and died in a fainting fit.

Dr. CRISP said he had not been able to trace atheroma to such a cause as exposure to a heated atmosphere. In some of the worst cases he had seen there had been no exposure to heat.

Dr. WILLIAMS said he only meant to say that exposure to heat was one cause *inter alia*. He had seen it in stokers, cooks, etc.

Mr. SQUIRE suggested that the heat might involve drink.

Dr. DICKINSON asked if atheromatous disease was more common in hot climates.

Dr. WILLIAMS could not say. He meant that such an atmosphere as that of a conservatory might induce disease.

In reply to the President, he stated that the pain extending down the arm was probably connected with angina.

Mr. HULKE could not understand the *modus operandi* of heat, as atheroma was known to begin from irritation of the arterial walls.

Dr. WILLIAMS also exhibited the Supra-Renal Capsules from a boy of 18, who had shown signs of phthisis. For these he was admitted to the Brompton Hospital, when, after a time, he began to vomit, and his complexion grew darker. Gradually he got weaker, until at last he died. His body was emaciated; his lungs adherent and tubercular, and much pigmented; his supra-renal capsules were enlarged, and they contained soft cheesy matter, with fibrous material and oil. The lungs were seldom so much pigmented in Addison's disease. The symptoms began six weeks before death.

Mr. A. T. NORTON exhibited a specimen of Epithelioma or Papilloma from the Larynx of a patient who came to St. Mary's Hospital with a white patch below the chordæ vocales. This was relieved, but did not disappear. He was admitted later with great difficulty of breathing. There was a granular ulcer in the right side of the larynx. Nothing was done, and he died in three days. The lymphatic glands were enlarged. The growth seemed to be of the nature of a papilloma.

Mr. I. BROWN asked on what clinical grounds the ulcer was concluded to be malignant, as cancer of the larynx was very rare, except when it spread from other parts. Most growths only assumed malignant characters after repeated removal. There was no appearance here to warrant the epithet.

Mr. NORTON concluded the growth was an epithelioma from its general appearance. It was not syphilitic or warty.

Mr. BROWN said syphilis had nothing to do with warts in the larynx. Syphilitic growths were condylomata in that situation. (Referred to Committee on Morbid Growths.)

Mr. F. CHURCHILL exhibited a specimen of Lipoma simulating Ranula. He said this tumour was removed from under the tongue of an old man, 86 years of age. The specimen is unique so far as the Society is concerned. I have been unable to find in the *Transactions* any records of a lipomatous tumour removed from this situation, and there is no such tumour in the Museum of the College of Surgeons. Mr. Liston refers to the removal of fatty tumours under the tongue in his work on Practical Surgery. Mr. Pollock removed a fatty tumour from below the jaw of a lady 40 years of age, enveloping the mylo-hyoid muscle; but in this case the intrinsic muscles of the tongue do not appear to have been encroached upon by the tumour. In several cases, hardened putty-like masses have been removed from a ranular cyst, as also phosphatic concretions. During the last session of the Society, Mr. Waren Tay exhibited four or five butter-like masses, which he had removed from a ranular cyst, but "under the microscope no definite structure could be detected in them. Entangled in the substance comprising the masses were some cells, and portions of cells looking like *debris* of epithelium." Dr. Meymott Tidy, after a careful chemical analysis, "was disposed to regard the bulk of the deposit as adipose." The history of the case was as follows:—H. T., aged 86, was admitted to the Westminster General Dispensary, under the care of my colleague, Dr. Waite, who treated him for eczema rubrum of the leg. After consultation with Dr. Waite as to the nature of the tumour beneath the tongue, supposing it to be a ranula, I suggested that it should be removed in the usual way. He stated that on several occasions fluid had issued out from the tumour, after which it was distinctly smaller. The incisive teeth in the lower jaw were intact, and situated just behind these was a movable (apparently pedunculated) tumour, about the size of a walnut, covered by the smooth glistening mucous membrane of the floor of the mouth. The tumour was also, in part, covered by the sublingual gland; it was soft and yielding, and I was under the impression that I could detect fluctuation. The distended mucous membrane was being chafed by contact with the sharp edge of the teeth during mastication. The old man had noticed the swelling for twenty-two years. It had gradually increased up to the present time. During the past twelve months, however, it had given him pain, in consequence of chafing against the teeth; he much feared that it was a cancer. From its size it had also interfered with mastication, and acted as a serious impediment to his speech. Having removed a portion of the anterior wall of the tumour, I proceeded to turn out the contents, but found, underlying the mucous membrane, a bright glistening mass, resembling a cyst-wall; this was seized with a pair of clutch-forceps and drawn forward, a small portion of it being removed, but still no fluid escaped. I proceeded then to separate the adhesions to the mucous membrane with the spoon end of a director, but the deep connexions were too firm to separate in this way; the finger also failed to enucleate the mass. The tumour was forcibly drawn forward, and these deep attachments cautiously divided with the knife. In this way the tumour, which was lobulated, and enveloping (probably) the genio-hyoglossi muscles, was removed. Exploring the cavity afterwards, I could feel the sharp borders of the vertical muscles, and I was satisfied that the growth had been entirely removed. There was very little hæmorrhage after the operation, and the cavity had completely closed in the course of a week.

Mr. FAIRLIE CLARKE said Mr. Paget referred to a similar

specimen to be found in the museum of Middlesex Hospital. Did the tongue deviate?

Mr. Churchill said No; the tongue was quite straight.

Mr. Hulke said the tumour in Middlesex Hospital was twice as large as this. The time it had lasted did away with the idea of ranula.

Dr. Green exhibited a specimen of Interstitial Pneumonia from a man aged 60, who came into Charing-cross Hospital with a broken thigh. He had suffered from chronic bronchitis, and died of an acute attack of that malady. The right lung was adherent; its pleura thickened and soft. There was no consolidation or caseation, but the lower lobe looked like a piece of sponge, and was made up almost entirely of dilated bronchi and fibrous tissue. It was quite soft to the feel. The left lung was like the upper lobe of the right. The kidneys were slightly indurated. In the right lung was a fibro-nuclear growth round the bronchi and bloodvessels. The nuclei were in part fusiform, and the tissue was fibrillated. In some parts the alveoli were little affected. He supposed that the bronchitis had led to dilatation of the bronchi, due to increase of the peribronchial connective tissue, which invaded and obliterated the alveoli in parts. He was inclined to doubt the existence of primary fibroid change. He thought it arose from antecedent pleurisy, pneumonia, or bronchitis.

Dr. Wilson Fox said the case was a very rare one; for simple induration arising in the inter-alveolar substance, without the alveoli being affected, was very rare. He thought Dr. Green's explanation was correct. Primarily, there had been chronic bronchitis, with dilatation and consolidation around, spreading into the alveoli. There was also some catarrhal pneumonia; but the thickening of the septa exceeded its products in amount. There was no phthisis here.

Dr. Payne asked what was the condition of the heart, especially on the right side. He did not care to advance views, but he would suggest an explanation—viz., that the soft thickening of the pleura, the induration of the lung, and the dilatation of the bronchi were connected with dilatation of the heart. Stoppage of the due supply of blood was often the starting-point of such changes.

Dr. Powell said twelve years' bronchitis would render congestion of the base probable, and from that Dr. Green's explanation was clear. He did not well understand dilatation of the bronchi as a primary change. He thought obstruction to the exit of the blood more likely to cause induration than insufficient supply.

Dr. Green said the right heart was perhaps slightly dilated, but that was not easily judged of. The absence of pigment at the base of the lung militated against the idea of congestion.

Dr. Dickinson said he had reported a case where plugging had given rise to hardening.

Dr. Crisp exhibited a model of dilated stomach from an elderly lady who had suffered from pain in the region of the cæcum. She was much troubled with vomiting; there was slight jaundice, and she died exhausted. The greater curvature of the stomach reached the pubes, and the pylorus was near the cæcum. Round the pylorus were some hardened glands. The liver was cirrhosed. He thought the kind of food had a good deal to do with enlargement of the stomach; so, also, had tight-lacing.

Mr. Spencer Watson thought living on vegetable food gave rise to gastric enlargement.

Dr. Crisp also showed a specimen of Hip-joint Disease, complicated with Bright's disease, in a boy aged 16. He died of uræmia. The hip disease had probably been induced by a fall.

Dr. Dickinson thought the kidneys were probably lardaceous. They were referred to him for examination.

Dr. Sims exhibited a specimen of Malignant Disease of the Liver. The organ was greatly enlarged and smooth. Ascites came on, and vomiting. Death ensued. (Referred to Committee on Morbid Growths.)

CLINICAL SOCIETY OF LONDON.

Friday, December 8.

Dr. J. Burdon-Sanderson, President, in the Chair.

Dr. Broadbent related a case of Tumour in Left Half of Floor of Fourth Ventricle, with Tumour in Cerebellum. The patient, a child 2 years of age, came under his (Dr. Broadbent's) care amongst the out-patients of St. Mary's Hospital on March 14, 1870. Three weeks previously, the child had begun to have what the mother called "screaming fits," which only came to an end when it was utterly exhausted. She slept well, ate ravenously, drank much; the bowels were confined; and every morning there was vomiting before any food had been taken. On examination, the left side of the face was found to be paralysed; and the left eye was not closed, either voluntarily or in winking, or when the cornea was touched. There was no marked strabismus; but this eye could not pass the median plane of the orbit outwards. The right hand was clenched and agitated while the child cried, and was continually in motion when it was quiet. The left hand was quiet, or moved naturally. Both legs were continually in motion—the right most. There was little change during the five weeks in which the patient was under observation. The paralysis of the sixth nerve and of the portio dura of the seventh became more marked; the loss of power in the right hand more evident—the rigidity and agitation continuing. The screaming, vomiting, and constipation were little affected by the treatment, which consisted in the application of a leech behind the left ear, and in the administration of an aperient powder—and first, of chloral in ten-grain doses, every four hours; later, of belladonna in full doses. The child died on August 20. A tumour was found to occupy the left half of the floor of the fourth ventricle, involving, as was anticipated, the common nucleus of the sixth and portio dura of the seventh nerves (shown by Stilling and Leckhart Clarke to be situated in the fasiculus teres), and in a less degree the already decussated motor tract from the right half of the body. Another small tumour was found in the left hemisphere of the cerebellum; but as all the symptoms were explained by the tumour in the floor of the fourth ventricle, it had probably not given rise to any characteristic symptoms. Both tumours were gliomatous in structure.

Mr. Carter asked if there was any ophthalmoscopical examination. He had once seen a paralysis of the portio dura disguised. The child had epiphora of the right eye. His assistant supposed that arose, as usual, from obstruction of the nasal duct, and was about to administer chloroform for the purpose of removing it by catheterism when he noticed that the child cried with one side of the face only. The flow of tears was the only sign of paralysis.

Dr. C. T. Williams referred to the cerebellar tumour, which he thought would produce some sign.

Dr. Broadbent said the use of the ophthalmoscope would have been hardly possible, but he would have tried it had he at the time (now a good many years ago) thought of its value. All the symptoms were explained by the tumour on the floor of the fourth ventricle.

Dr. Habershon narrated two cases of Disease of the Heart. The first instance was that of a young man aged 30, who had been accustomed to great muscular exertion, and in whom the aortic valves were rendered imperfect by continued strain. Hypertrophy and dilatation of the left ventricle ensued; and the physical signs of aortic obstruction and regurgitation were accompanied by urgent dyspnœa and by paroxysms of angina pectoris. The mitral valve at length became so stretched that it ceased to act as a valve, and the indications of pulmonary and abdominal congestion became apparent. At this time a triple sound was audible at the apex of the heart, and continued for several weeks—till, in fact, the right ventricle became accustomed to the additional strain thrown upon it, and beat in unison with the left ventricle. After a time a systolic bruit at the apex replaced the triple sound. The triple sound was explained by the want of synchronous action between the two ventricles. It has been noticed in rupture of the mitral valve, and also in cases of contraction of that valve; and in this instance it occurred for a short period in connexion with an overstrained mitral valve. The patient became slowly exhausted by the increased embarrassment of the heart and by dropsy. The second instance was that of a child, aged 11, in whom severe cardiac disease affecting the mitral valve followed an attack of rheumatism. Three years previously he had the first attack, and had been ill for a fortnight before his admission into Guy's Hospital on February 22, 1871. There was pain in the limbs, and, in the plane of the mitral, a loud systolic bruit, and a less distinct presystolic one, were audible. He improved in health till about the middle of April (12th), when the presystolic bruit became more distinct; and this indication of fresh disease was shortly followed by severe brain symptoms; vomiting and delirium, with hemiplegia on the left side, suddenly supervened; symptoms of great prostration followed, with convulsive movements of the right side, and, when consciousness was regained, he cried out and complained of pain in the head and in the spine. On the third day he began to rally, and in ten days the paralysis began to

lessen, but the hand and arm recovered before the foot and leg. The presystolic bruit also ceased, and the systolic mitral bruit alone remained audible. He left the Hospital relieved on June 24. The presystolic bruit was probably due to deposit upon the mitral and consequent obstruction, and increased deposit led to augmentation of the sound. The cerebral symptoms were traced to embolism; and soon after the onset of these symptoms the presystolic bruit was diminished in intensity, as if the mitral, relieved of a portion of fibrinous deposit, acted more freely. The retrocession of the hemiplegic symptoms was in the inverse order from ordinary hemiplegia from apoplexy—namely, that the arm recovered before the leg and the hand, and the feet before the shoulders and the hips. Very little Medical treatment was permitted in this case, and it illustrated in a remarkable manner the natural subsidence of the symptoms of disease as the circulation of the brain accommodated itself to the temporary obstruction.

Dr. Althaus had recently a case of aortic regurgitation and hypertrophy, of rheumatic origin, under his care. He treated the case with digitalis and iron, and the patient did very well. In another case he was induced to give opium; in three days, anasarca and suppression of urine followed, the legs were punctured, and gangrene and death supervened. He considered the opium the remote cause of the man's death.

Dr. Sanderson remarked on the interest of the triple apex-sound, and the widened and thinned mitral. Usually, under such circumstances, the mitral was contracted. Had it existed long?

Dr. C. J. B. Williams had often noted the existence of symptoms like those recorded by Dr. Habershon—viz., the existence of a double systole, so as to produce a triple sound. He had seen that end in mitral regurgitant murmur. He thought it was explained by the mitral valves not tightening at the time the walls contracted. Gradually the sounds became prolonged into a murmur. This supposition was based on the belief that the first sound was due to tightening of the whole mass of the heart, modified by a mitral sound. When there was universal embarrassment of the heart's action, mercury often did good—often most when combined with digitalis. Opium did harm rather than good. Digitalis was of service, doubtless, in increasing the action of the mercury.

Dr. Broadbent thought there was probably more than one condition leading to reduplication of the first sound. Want of synchronism of the two ventricles, doubtless, did. This was best heard over the septum with the single stethoscope. In cases of disease of the kidney, the right side got the start; in lung disease the left had it. He also thought that mercury did good.

Dr. Langdon Down also considered reduplication to be due to want of synchronism, which, with the use of digitalis, speedily departed.

Mr. Lawson asked in what position the patient was tapped. Sometimes it was done sitting, and then faintness was almost certain to follow.

Dr. Habershon, in reply, stated his opinion that, as a rule, opium did harm. He could give no exact date of the stretching of the mitral valves. He thought the cause of the reduplication was sudden tension of the lung and flagging of the right ventricle.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, December 12.

Mr. Curling, F.R.S., President, in the Chair.

A paper by Dr. John Harley was read

ON THE PATHOLOGY OF SCARLATINA, AND THE RELATION BETWEEN ENTERIC AND SCARLET FEVERS.

In the first portion of the communication the author treats of the morbid anatomy of scarlatina, and gives the details of twenty-eight cases of his own observation. Of these, the greater number died on days ranging consecutively from the third to the fifteenth; the remainder died on the seventeenth, twentieth, twenty-fourth, twenty-ninth, thirty-third, forty-first, and sixty-ninth days. More or less albuminoid and fatty degeneration of the kidneys existed in six of the cases, and these died on the fifteenth, seventeenth, twentieth, twenty-ninth, forty-first, and sixty-ninth days respectively; the kidneys were healthy in the remainder. The pathological hanges common (with a few exceptions, depending chiefly upon the time of the decease of the patient) to all the cases are as follows:—1. *The formation of fibrinous clots in the heart and great vessels during a pyrexial condition at any period of the disease.*—This is the commonest cause of death during the early stage of the disease. It is indicated during life by the reduction, often very sudden, of a full and bounding pulse of 120 to a dribble of 150 or 160 almost imperceptible impulses; and the failure of the heart's action is commonly attended with orthopnœa and delirium from obstruction of the pulmonary and cerebral circulation. On opening the body very soon after death, before it has lost a degree of temperature, and while the blood is therefore hot and fluid, the right heart will be found distended partly with dark blood, which coagulates on exposure—and partly, sometimes chiefly, with a large, firm, white, bifid clot, continuous through the auriculo-ventricular opening. Each portion is interlaced with, and firmly adherent to, the tendinous cords and outstanding muscular bands of the cavity in which it lies; and each portion sends a rope-like prolongation into the orifice of the great vessel connected with the cavity in which it is situated—the one entering the ascending cava, and the other the pulmonary artery. These processes frequently occupy half the area of the blood-tubes, and are prolonged in ramifications corresponding to those of the bloodvessels, upwards into the cranial cavity, and laterally into the lungs. On withdrawing these partial casts of the great vessels, they may often be found nine inches long, and to have occupied vessels of the sixth and seventh degree of ramification. 2. *Marked derangement of the hepatic function.*—The bile was examined in twenty cases. In five only were the characters of the secretion normal, and in these cases death occurred on the third, fourth, twenty-fourth, forty-first, and the sixty-ninth days respectively—days probably in these particular cases too early for the development, and too late for the persistence, of any great derangement. In the remaining fifteen cases the bile was in a deteriorated condition. In two, Cases 10 and 15, the gall-bladder showed decided marks of inflammatory action, the coats being injected, and the mucous membrane rose-coloured. In Case 10 there was a complete absence of bile, the mucous membrane being merely moistened with a few drops of colourless alkaline fluid. In three other cases the bile had a natural greenish-brown colour, but it was greatly deficient, as was that of the remaining ten cases, in solid matters. Thus the specific gravity in none of the thirteen cases exceeded 1014, and the amount of solid matter in 1000 grain measures in no case amounted to more than 36·4 grains, or less than one-third of the normal amount. In one case there were only 11·1 grains of solid matter in 1000 grain measures of the bile. In the majority of the cases the bile was turbid from epithelial *débris*, but on standing it became clear and transparent, and resembled pale urine. In all the thirteen cases there was a notable deficiency of biliary acids, and in two a complete absence. The colouring matter of the bile was present in every case, and as the fluid trickled over a white surface it usually left a bright gamboge-coloured track. The contents of the intestines agreed with this condition of the bile. If, as rarely happened, the bowel contained solid fæces, it was of a pale ochre or sulphur colour. But the fæcal matters were commonly fluid, grumous, or flocculent, often slimy, and of a pale ochre colour. Such, also, were the characters of the stools before death in many cases. 3. *General inflammation of the lymphatic glands*, usually confined to those of the neck, but occasionally extending to those of the extremities; of the spleen and mesenteric glands; and of the whole of the solitary and agminated glands of the alimentary canal, but commonly affecting only those of the fauces, and of the ileum and colon. The morbid appearances due to this general inflammation of the lymphatic system were remarkably uniform, and they were observed in every case. The tonsils and solitary glandulæ of the tongue, and the external glands of the neck, were perceptibly affected in every case. In several cases large buboes formed in the neck; in three (15, 21, and 22) these were associated with diffuse cellulitis, and purulent infiltration; and in Case 22 the popliteal and axillary glands and their surrounding connective tissue were similarly affected. In these cases the glands themselves were slow to take on suppurative action, and although they were generally much enlarged and purple, comparatively few had softened centres. The spleen was enlarged in twenty-three cases, and in five of these (Nos. 9, 12, 14, 25, and 26) it was increased to nearly twice its ordinary bulk. In two others it was not examined; and in the remaining two cases (10 and 27, in which death occurred on the fifth and sixty-ninth days) it was of the normal size. The mesentric glands were swollen and inflamed in every case.

In Cases 2, 6, 7, 8, 12, 19, 22, and 24, the mesentery formed a thickened, heavy, lobulated mass, and many of the glands were as large as walnuts or pigeons' eggs. In Case 13 (death on the seventh day) there was only slight swelling of these glands, whereas in Cases 26 and 28, in which death occurred at the forty-first and sixty-ninth day respectively, the enlargement still persisted. Even the small glands in the attached borders of the transverse and descending mesocola were found purple and turgid. The solitary glandulæ of the ileum were in a condition of psorentery—*i.e.*, forming white granular and more or less hard elevations, like a thick sprinkling of large sago-grains, upon the mucous membrane—in fourteen cases. In six other cases, the solitary glandulæ were only partially affected, the swelling was more diffuse, the glandulæ being only moderately raised, but they were always deeply injected, and in some cases had an abraded appearance. In three cases, in which death occurred on the eleventh, seventeenth, and sixty-ninth days of the fever, there was only very slight swelling of a few of these glands; and in four cases, in which death occurred on the fifteenth, twenty-fourth, twenty-ninth, and thirty-third days respectively, the glandulæ were altogether unaffected. The agminated glands of the ileum were more or less swollen and inflamed in every case but one (25), that in which death happened on the thirty-third day. In Case 21 (death on the seventeenth day from suppurating buboes in the neck), there was only very slight swelling. In all the other cases the results of inflammatory action were decided, and in many cases severe. The glands were commonly raised the eighth of an inch above the surrounding mucous membrane, than which they were always more deeply injected. In the greater number of cases the difference was very striking, the mucous membrane being generally pale, and sometimes thin and bare, while the agminated glands were of a vivid red or claret colour. The inflammatory action was usually confined to the glands in the lower third of the ileum, but in three or four cases the whole of the patches from the jejunum downwards were affected. In some of the larger glands isolated foci of inflammatory action were occasionally observed. The interfollicular ridges were often the eighth of an inch wide, giving to the paler glands a spongy appearance; but these ridges were as often vascular, with fine hair-like turgid vessels, and in some cases they were prolonged into folds a quarter of an inch in length (*see* Cases 3, 6, 7, 8, 12, and 15, in which death occurred on the third, fourth, fifth, sixth, and ninth days). In two or three cases an almost bleeding gland had a softened abraded surface. The mucous membrane of the ileum was itself severely inflamed in two or three cases, and was covered by a thick, adherent layer of white opaque mucus. The solitary glandulæ of the large intestine were enlarged and inflamed in eight cases (Nos. 4, 6, 7, 9, 16, 17, 19, and 22). In one of these (9) there was acute desquamation of the mucous membrane of nearly the whole of the bowel. In another case (27), the cæcum was severely congested. In those of the remaining cases in which the large intestine was examined, it was quite healthy. After taking the above described pathological conditions into one general view, it appears that there is an increase of fibrin in the blood during an attack of scarlatina, and that death is likely to occur during the first week from its deposition in the heart and great vessels; that the condition of the biliary function is such as to lead to an outbreak of diarrhœa, if this has not already happened; that a latent enteritis, sometimes general, but commonly only affecting the solitary and agminated glands, exists in a high state of development during the pyrexial stage of scarlatina, and ready to declare itself openly upon very slight provocation; that this intestinal affection is only a part of a general lymphatic inflammation which involves the whole of the lymphatic system, including the mesenteric glands and the spleen, in one common action; and, further, that this condition may persist in some degree, either in the bowel or the mesentery, as late as the sixty-ninth day, and without any outward indication of its presence throughout. From this view one general conclusion is inevitable—viz., that the pathological changes accompanying an ordinary attack of scarlatina include all those of the first stage of enteric fever, and that the transition from one disease to another is but a natural pathological sequence, readily determined by any cause which may increase the intestinal irritation. The proofs of this interchange, or sequence, constitutes the second part of the subject, and contains accounts of the following original observations:—Case 29—Scarlatina. Convalescence on the thirteenth day. Relapse during sojourn in the Hospital, with scarlet rash on the twenty-eighth day; fully developed enteric fever on the thirty-second day; and convalescence on the fiftieth day. Case 30—Scarlatina. Convalescence on the nineteenth day. Relapse during sojourn in the Hospital on the thirty-first day, followed during the next ten days by fully developed enteric fever; convalescence on the sixty-fourth day. Case 31—Scarlatina. Convalescence on the thirteenth day. Discharged from the Hospital on the twenty-third day. Supervention of enteric symptoms on the thirty-seventh day. Re-admission in a typhous condition, and suffering from grave enteric fever on the fifty-eighth day; convalescence on the eighty-first day. Case 32—Severe attack of scarlatina. Convalescence on the twenty-seventh day. Slight relapse, with a trace of albumen in the urine, on the thirty-second day. A second relapse on the forty-first day, followed by diarrhœa, with hæmorrhage from the bowel and pneumonia; and death on the fifty-first day. Case 33—Scarlatina. Convalescence on the twentieth day. Discharge from the Hospital on the thirty-first day. Re-admission, with fully developed enteric fever, on the fifty-sixth day; and death on the sixty-fourth day. Extensive ulceration of Peyer's patches. Case 34—Scarlatina. Convalescence on the twelfth day. Relapse during sojourn in the Hospital on the twenty-seventh day. Development of enteric fever on the thirty-second day; and death on the fiftieth day. Extensive ulceration of the solitary and agminated glands. The author next gives a series of cases to illustrate the co-existence of the two diseases; and he concludes as follows:—"The intercurrence or sequence of scarlatina and enteric fever has been frequently noted, and always attributed to accidental coincidence. In my article on 'Enteric Fever' in Reynolds's System of Medicine, I have expressed my convictions on this subject; and so strong were they in favour of the natural sequence of the diseases at the time that work was publishing, that I find I have in the proof-sheet called my contagious variety of enteric fever 'abdominal scarlatina.' I abandoned the term then because it seemed to me that the evidence which I had adduced to show the close relationship implied in it was insufficient to convince those whose opportunities of examining the question in detail were rare, and whose scholastic principles, moreover, would be shocked by such confusion of two diseases which are commonly considered to be specifically distinct. Now, however, that I am enabled to lay before the Society such full and complete evidence as is contained in the preceding observations, I will submit this term to the Profession as a definite description of a disease which the Practitioner will occasionally meet with. Nor will I allow this opportunity to slip me, but, in the interests of truth, will ask my fellow-labourers to go with me one step further, and to discard those transcendental ideas of enteric fever which make of it a disease *per se*, and to open their minds to receive what nature will then soon teach them—viz., that enteric fever and all its attendant phenomena may occasionally become a part of almost any other more general inflammatory condition, specific or simple."

Dr. Broadbent said that the Society was indebted to Dr. Harley for a very complete description of the pathology of scarlet fever. He could not, however, agree with all the views of the author of the paper. It was quite true that an attack of enteric fever often followed one of scarlet fever; but it must be remembered that the converse was sometimes the case, the two diseases overlapping each other in all directions. Not only did enteric follow scarlet fever, but scarlet fever sometimes followed enteric. He (Dr. Broadbent) had seen instances in which, during an attack of enteric fever, scarlet fever appeared, and ran through its course before the completion of the enteric attack; so that for a time there was a combination of the symptoms of both fevers—sorethroat and intestinal affection, rose-spots and scarlet rash. Their overlapping, and their occasional co-existence, indicated that the diseases were distinct rather than identical. There was no doubt a similarity in the pathological results of the two diseases; but there was this striking difference: that in scarlet fever, unless there were distinct evidence of a new attack, the disease stopped short of ulceration of Peyer's patches; whereas this occurred early in enteric fever. The affection of the lymphatic system in both diseases was no proof of their relationship, further than it showed that they were both blood-diseases.

Dr. Sansom admitted the elaborateness of Dr. Harley's description of the pathology of scarlet fever; but he thought that much credit was also due to Dr. Fenwick, who had worked at this subject. He agreed with Dr. Broadbent that evidence as to the unity of the diseases was deficient. Another argument against the view of identity was in the difference of the causes; typhoid fever being propagated by emanations,

scarlet fever by contact. It should be remembered that scarlatina raged most in localities where typhoid fever prevailed.

Dr. T. H. Green must hesitate considerably before being able to accept Dr. Harley's views. As to the pathological changes in the lymphatic glands, these occurred in other acute inflammatory conditions, especially in children.

Dr. John Webster could not think that scarlet and enteric fevers were identical. He asked whether a child suffering from scarlatina ever communicated enteric fever.

Dr. Reginald Thompson said that there were two points of distinction in the clinical history of the two diseases. First, it sometimes happens that scarlet fever occurs in a choreic patient, and then the chorea becomes mitigated or removed; while, in two cases where he had seen typhoid fever occurring during chorea, the latter disease was not influenced. Secondly, rheumatism often followed scarlet fever, but was not known as a sequence of typhoid.

Dr. Charlton Bastian said that the facts brought forward by Dr. Harley tended to show the alliance between the pathological conditions of scarlet and of enteric fever. It was known that there was a general resemblance between the pathological conditions in fevers, and that there was a general tendency to affections of the lymphatic system. The evidence brought forward by Dr. Harley suggested the question whether the condition of system induced by scarlet fever might not favour the development of enteric fever. He saw no reason why the two conditions should not be interchangeable. The idea of the so-called specific nature of diseases was derived from the belief in the specific nature of animal and vegetable species; and if there were, as he believed, grounds for doubting the latter, our faith in the former must also be shaken. He rejected the notion of the origin of these diseases from germs, and regarded them as blood-diseases, modified by circumstances in various cases, and bearing a relation to each other much in the same way as certain diseases of the nervous system which are known to be interchangeable.

Mr. Savory asked, with regard to the affection of the lymphatic glands, whether all blood-poisons did not chiefly affect the organs concerned in the elaboration of blood. By the term specific, as he understood it, it was meant that the group or class to which it was applied was separated from others by certain well-defined characters. Did cases occur in which it was difficult to say to which group a case belonged? Was there a hybrid between scarlet fever and enteric fever? He also asked whether the two diseases were mutually convertible —*i.e.*, whether one gave rise by infection to the other.

Dr. John Harley said that he had noticed cases of intercurrence of the diseases, such has had been described by Dr. Broadbent. He had examined the intestinal and mesenteric glands in typhus fever, and had not found them enlarged to any appreciable extent. The mesenteric glands were no doubt enlarged in the diseases of children. With regard to the relative contagiousness of typhoid and scarlet fevers, he thought that this property had been much overrated in respect to the latter disease. He thought that one of these diseases was capable of producing the other, as he had sometimes seen cases of enteric fever brought from houses in which several of the inmates were at the time suffering from scarlet fever.

OBITUARY.

BERTHOLD SEEMANN, Ph.D., F.C.S.

This distinguished naturalist, who was formerly her Majesty's Special Commissioner to the Fiji Islands, died at Nicaragua, on the 10th of October last, at the early age of 47. After a long visit to the Arctic regions as Admiralty Naturalist, Dr. Seemann dared to face, and faced with success, the perils of scientific investigation in the South Sea Islands and Central America, and found time to edit his "Journal of Botany" and his "Flora Vitiensis," which he just lived to complete.

CHARLES COWDELL, M.D., M.B.

Charles Cowdell took his M.B. (Univ. Col.) in 1846, and M.D. Lond. in 1852. He died December 15, 1871, in his 57th year. Dr. Cowdell was well known to the Medical scientific world as the originator of the theory of the fungoid origin of cholera, which he published in 1848, in his book entitled "A Disquisition on Pestilential Cholera; being an attempt to explain its Phenomena, Nature, Cause, Prevention, and Treatment, by reference to an extensive Fungous Origin" (published by Samuel Highley), which theory has since been confirmed and acknowledged in the Ninth Report of the Medical Officers of the Privy Council, p. 515, 1867, in connexion with the account of Professor Hallier's researches as to cholera fungus, and also by letter to the *Times* in 1868 (the exact date and purport of this letter I cannot remember). He also contributed, amongst other things, to the *British Medical Journal*, 1868, "Cases of Traumatic Tetanus Successfully Treated," and "Papers on Epidemic Sorethroat"; and to the same periodical, and the *Medical Times and Gazette*, in 1860, "Cases of Neuralgia successfully treated by Hypodermic Anodyne Injection," which he was one of the first to introduce. For upwards of twenty-two years he filled the post of Physician to the Dorset County Hospital. He was taken ill with an attack of suppressed gout some six weeks since, but did not at first think it serious. His strength, however, failed so fast that Mr. George Curme and Mr. Alfred Emson were called in, and Dr. George Johnson, of London, came down to consult with them. Though at one time he appeared to rally, and his family entertained hopes of his recovery, inflammation of the lungs and jaundice set in, and exhausted his little remaining strength, until, on Friday morning, without a sound or a struggle, he passed away. He was beloved and esteemed by his Medical brethren and fellow-townsmen, both for his Professional skill and his unblemished life of Christian piety. He was interred on Wednesday, the 20th, in the cemetery at Dorchester.—H. C. S.

MEDICAL NEWS.

Royal College of Physicians of London.—At an extraordinary meeting of the College, on Monday last, the 18th inst., Thomas Bishop, M.D. Aberdeen, 22, Rue de Matignon, Faubourg St. Honoré, Paris, was admitted Fellow; Mr. John Francis Murphy, of Queen's College, Cork, passed his Primary Professional Examination; and the following gentlemen, having conformed to the By-laws and Regulations, and passed the required examination, were granted licences to practise Physic, including therein the practice of Medicine, Surgery, and Midwifery:—

Bailey, Francis James, M.R.C.S., 51, Grove-street, Liverpool.
Brabant, Thomas Hughes, M.R.C.S., 34, North Audley-street, W.
Carr, William Ward, M.B. Lond., Lee-grove, Blackheath.
Coomber, Frank, M.R.C.S., 51A, Trinity-square, London.
Davies, Arthur Evelyn, M.R.C.S., Penner House, Newport, Monmouthshire.
Duke, Douglas William (who passed his examination in Medicine, July, 1871, and has obtained a recognised qualification in Surgery).
Eardley-Wilmot, Robert, M.R.C.S., King's College Hospital.
Franklin, George Cooper, M.R.C.S., Victoria-park Hospital, N.E.
Fraser, John, M.D. Toronto, Strabane, Ontario, Canada.
Graham, James Elliot, M.D. Toronto, Canada.
Hemming, John Lamond, M.R.C.S., 10, Southwick-place, Hyde-park.
Jalland, William Hamerton, M.R.C.S., Guy's Hospital.
Langridge, George Thomas, M.R.C.S., 71, Myddelton-square, E.C.
Lees, Frederic Arnold, M.R.C.S., Meanwood, near Leeds.
Parker, Walter Augustus, M.R.C.S., 55, Cathcart-road, Brompton.
Rees, Howell, M.R.C.S., Ystalyfera, Swansea.
Rowland, Edward Roger, M.R.C.S., 1, St. George's-place, S.W.
Ryley, Henry, L.R.C.P. Edin., Fulbourn, Cambridge.
Sergeant, Edward, M.R.C.S., St. Thomas's Hospital.
Todd, William James, M.R.C.S., 4, Gloucester-road, Regent's-park, N.W.
Younger, Edward George, M.R.C.S., Holly Mount, Blackheath hill, S.E.

King and Queen's College of Physicians in Ireland.—At the monthly examinations, held on December 11, 12, and 13, the following gentlemen obtained the Licence to practise Medicine:—

Budds, William Tracy.
De Renzy, Thomas.
Fleetwood, William John.
Heyward, Henry.
Lucas, Edmond Allen.
O'Donnell, Richard William.
Prendergast, John.
Reed, Robert Hamilton.
Smith, Charles Henry.
Thomas, Edward.
Wrightson, Edmund Wellington.

The Diploma in Midwifery was granted to the following on December 14:—

Budds, William Tracy.
De Renzy, Thomas.
Fleetwood, William John.
Heywood, Henry.
Lucas, Edmond Allen.
O'Donnell, Richard William.
Reed, Robert Hamilton.
Smith, Charles Henry.
Thomas, Edward.
White, W. H.

Apothecaries' Hall.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, December 14, 1871:—

Bosworth, John Routledge, Sutton, Surrey.
Grayson, Francis Dorrell, Henley-on-Thames.
Harris, John Delpratt, Exeter.
Hopkins, Frederick Fraser, Henley-in-Arden.
Millner, Edward, Birmingham.
Moseley, William Arthur, Nassau, Bahamas.
Pitt, Isaac, Birmingham.

As an Assistant in Compounding and Dispensing Medicines:
Jones, Morgan, Chipping Sodbury.

The following gentlemen also on the same day passed their first Professional examination:—

Cave, Alfred Ernest, Loudon Hospital.
Eady, George John, King's College.
Gard, William John, Guy's Hospital.
Griffith, Alfred Vavassour, Queen's College, Birmingham.
Joynes, Francis James, King's College.
Parkes, William Edmund, Queen's College, Birmingham.
Vincent, Henry Bird, St. Bartholomew's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Bankart, James, F.R.C.S., M.B. Loud.—Surgeon to the Devon and Exeter Hospital, *vice* Philip Chilwell De la Garde, F.R.C.S., deceased.

Coles, Geo. Chas., M.R.C.S.—Assistant-Surgeon to the Central London Ophthalmic Hospital, Gray's-inn-road, W.C.

Lowe, John, M.B. and C.M. Edin., late Clinical Assistant, West Riding Asylum, Wakefield—Assistant Medical Officer to the Durham County Asylum, Sedgefield, Ferryhill.

Sandwell, Edward, L.R.C.P. Edin., M.R.C.S. Eng.—Medical Officer to St. Andrew's Home for Boys, Soho.

Thom, Alexander, A.M., F.R.C.S.E.—Medical Officer of the Parochial Board of the Parish of Maderty.

Young, Adam, M.R.C.S., late House-Surgeon St. Bartholomew's Hospital—House-Physician to the Seamen's Hospital (late *Dreadnought*), Greenwich, S.E.

BIRTHS.

Chambers.—On December 6, at 2A, Sutherland-street, S.W., the wife of Thomas Chambers, M.R.C.P., F.R.C.S.E., of 2, Bolton-row, Mayfair, W., of a son.

Diver.—On December 11, at Caterham, the wife of Ebenezer Diver, M.D., of a son.

Dudgeon.—On September 23, the wife of Dr. J. Dudgeon, Chinese Hospital, Pekin, of a daughter.

Pearce.—On December 11, at the Manor House, Brixton-rise, the wife of Chaning Pearce, M.B., of a daughter.

Wilson.—On December 12, at 12, Westmoreland-road, Bayswater, the wife of Dr. Charles Cooper Wilson, Surgeon Bengal Army, of a daughter, stillborn.

MARRIAGE.

Nason—Clementi.—On December 14, at Attenoven Church, John Harrison Nason, M.D., of Killumney, to Grace, widow of John Muzio Clementi, Esq., of Bride-park, county Cork, and Waterville, county Kerry.

DEATHS.

Armstrong, James Hunter, M.R.C.S., late of Gravesend, Kent, at Toronto, Canada, of apoplexy, on December 3.

Brown, J. C., for upwards of fifty years a Medical Practitioner at Waltham Abbey, on December 15, aged 80.

Cowdell, Charles, M.D., Physician to the Dorset County Hospital, at Dorchester, on December 15, aged 56.

Fox, Amy Catherine Long, youngest child of Dr. Edward Long Fox, at Church House, Clifton, on December 17, aged 11 months.

Griffin, Ethel Harriet, the youngest and much-loved child of R. W. Wandry Griffin, M.D., at 11, East Park-terrace, Southampton, on December 18, aged 7 years.

Hull, Susanna, wife of George Hull, M.D., at 102, Warwick-gardens, Kensington, on December 17, in her 62nd year.

Seemann, Berthold, Dr., F.L.S., at the Javali Mine, Nicaragua, on October 10, aged 47.

Skene, Euphemia, wife of William Skene, M.D.; also, Berthia Neilson, only daughter of the above, at Buckhurst-hill, on December 16.

Tinnion, John, M.D., suddenly, at Templehill, Troon, Ayrshire, on December 11, aged 56 years.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

Battersea.—Medical Officer of Health for the Eastern District of this parish. Gentlemen, properly qualified, may send their testimonials to Mr. A. Corsellis, Clerk to the Board of Works, Battersea-rise, on or before December 27.

Carnarvonshire and Anglesey Infirmary.—House-Surgeon. Must be a registered Medical Practitioner. Applications and testimonials to the Secretary, Infirmary, Bangor, on or before January 2, 1872.

East London Hospital for Children and Dispensary for Women, Ratcliffe-cross, E.—Physician. Must be a Graduate in Medicine of a British University, or a Member of the Royal College of Physicians. Applications and testimonials to the Secretary, on or before December 28. Election at the London Tavern on January 2, 1872, at two o'clock. Attendance required.

East Sussex, Hastings, and St. Leonard's Infirmary.—The appointments of Physician and Assistant-Physician are vacant. The qualifications required are as follows:—Doctor or Bachelor of Medicine of Great Britain or Ireland, or Fellows or Members of the Royal College of Physicians of London, Edinburgh, or Dublin. Applications and testimonials to the Secretary, on or before January 1, 1872.

Jersey General Dispensary.—Medical Officer. Further particulars of the Rev. P. A. Le Feuvre, Oakwalk, Jersey. The election takes place early in January, and the duties will commence on February 1, 1872.

King's College, London.—Professorship of Forensic Medicine. Applications, from qualified members of the Medical Profession, to be sent to Mr. J. W. Cunningham, Secretary.

Lancaster (County of) Lunatic Asylum.—Medical Officer. Must be duly qualified and registered. Applications and testimonials to Mr. F. C. Hulton, Clerk to the Committee, on or before January 8, 1872.

Liverpool Dispensaries.—Assistant Resident House-Surgeon. Must be duly qualified to practise. Applications and testimonials to the Secretary, on or before December 27. Personal attendance at the Dispensaries Office, Leith Offices, Liverpool, will be required on the following day at two o'clock.

Metropolitan Free Hospital, Devonshire-square, City, E.C.—Honorary Surgeon. Must be F.R.C.S., or pledged to become such within twelve months. Applications and testimonials to Mr. G. Cuxton, Secretary, on or before December 23.

Middlesex County Asylum, Hanwell.—Medical Superintendent of the Female Department. Candidates must possess both Medical and Surgical qualifications. Copies of testimonials to Mr. R. W. Partridge, Clerk to the Visitors, on or before January 6, 1872.

Newark Hospital and Dispensary.—Resident Medical Officer and Secretary. Medical and Surgical qualifications required. Applications and testimonials to the Secretary, on or before January 1, 1872. Election on January 9. Attendance of candidates required at twelve o'clock.

North Wales Counties Lunatic Asylum, Denbigh.—Assistant Medical Officer. Qualifications to practise must be produced. A knowledge of the Welsh language is necessary. Applications and testimonials to Mr. John Robinson, on or before January 10, 1872.

Nuneaton Union.—Medical Officer and Public Vaccinator for the Nuneaton District. Candidates are required to possess the qualifications prescribed by the Local Government Board. Applications and testimonials to Mr. John Estlin, Clerk, Nuneaton, on or before December 26. Election on the 27th.

Sunderland Infirmary.—Junior House-Surgeon. Medical and Surgical qualifications required. Applications and testimonials to the Senior House-Surgeon, on or before January 20, 1872.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1861.

RESIGNATIONS.

Belford Union.—Dr. L. G. Broadbent has resigned the Eastern District; area 12,704; population 2869; salary £25 per annum.

Pocklington Union.—Mr. Alfred Jackson has resigned the Second Pocklington District; area 25,555; population 2501; salary £20 per annum.

Poole Union.—Mr. A. P. Hamilton has resigned the Third District; area 7491; population 2050; salary £75 per annum.

Thingoe Union.—The Eighth District is vacant; area 2390; population 585; salary £13 18s. per annum.

APPOINTMENTS.

Blything Union.—Pryce J. L. Morris, L.R.C.P., M.R.C.S. Eng., to the First District. Henry J. Horton, L.R.C.P. Lond., M.R.C.S. Eng., to the Seventh District.

Grantham Union.—George W. Shipman, M.R.C.S. Eng., L.R.C.P. Lond., to the Grantham District.

Market Harborough Union.—Frederick Grant, L.R.C.P. Edin., M.R.C.S. Eng., L.S.A. Loud., to the Workhouse and the Fourth District.

Northleach Union.—Hugh George Webb, L.R.C.S. Ire., L.K. and Q.C.P. Ire., to the First District and the Workhouse.

University of Dublin. — Comitia Hiemalia. — *Baccalaurei in Medicinâ:* Mauritius Robertus Blunden, Thomas Johannes Browne, Henricus Comyn, Thomas Elliott, Fitzjohn Robertus Irvin, Alexander Macalister, Hamilten MacMullen, Dawson Neshitt, Harvie Scott, Ricardus Dormer White. *Magistri in Chirurgiâ:* Mauritius Robertus Blunden, Henricus Comyn, Jacobus O'Connor, Ricardus Dormer White. *Doctores in Medicinâ:* Robertus Browne, Georgius Fredericus Duffy, Jacobus Marshall Skelton, Gulielmus Henricus Steele.

Dr. Alfred Meadows has been elected a Corresponding Member of the Gynæcologieal Society of Boston.

Mr. C. B. Courtenay has been elected Medical Officer of St. George's-in-the-East, in the place of Dr. Baker, resigned.

Dr. Reginald Alexander, son of Dr. William Alexander, of Halifax, and Dr. P. Nicol, have been elected Honorary Physicians to the Bradford Fever Hospital, which will be open for the reception of patients in a few weeks.

Glasgow Lying-in Hospital.—The following gentlemen have been elected officers for the ensuing year:—*Consulting Surgeon:* Dr. George Buchanan, Professor of Anatomy in Anderson's University. *Physicians-Accoucheur:* Dr. J. G. Wilson, Professor of Midwifery in Anderson's University, and Dr. R. D. Tannahill.

The deaths in Paris last week amounted to 929.

Fall of a Staircase at the General Infirmary, Worcester.—Mr. C. E. Hardyman, House-Surgeon, and Mr. C. A. Sheppard, Surgeon, were descending the staircase—a stone one—when it suddenly gave way. We are glad to find that, by their presence of mind, they averted what might have been a very serious casualty, by springing upon the landing a few feet below.

THE Local Board of Scarborough have appointed a committee to investigate the sanitary condition of the town.

DR. MICHAEL, at a meeting of the Medical Officers' Association on Saturday, stated that, in ninety-five cases out of a hundred, the houses of respectable persons were the receptacles of noxious gases, and otherwise defective in a sanitary point of view.

CHOLERA NOTES.—About Dolma Baghtché and Beshiktash, Constantinople, cholera has broken out, and among the victims are the chief cook and thirteen servers and *marmitans* of the Imperial kitchens. In these kitchens several hundred servants are huddled together, where they live, sleep, cook, and over-eat themselves. The accumulation of filth was inconceivable. The Sultan's Physician, Marco Pasha, remained night and day at the palace for more than a week, to get the place cleansed, sweetened, and disinfected. The disease is now on the decrease, and has lost much of its malignity.——"The cholera," says a letter from Tabreez, Persia, of the 27th ult., "has now completely disappeared from this town and the immediate neighbourhood, although isolated cases are still heard of in the villages. During its continuance it carried off nearly 12,000 persons in Tabreez alone, where the death-rate at one time reached 420 daily. It is still lingering in Urumiale and the districts of Satmas, but the cases are now happily rare."——Mr. Pedler reported to the Court of Sewers that the Cholera Committee continued to meet, but, happily for them, the cholera seems to have taken its departure from the Baltic, though it had unfortunately found another way out of Russia. It had found its way to Constantinople, and had extended to Alexandria. The Committee were watching what happened.

THIRTY-SEVENTH ANNUAL REPORT OF THE GLASGOW MATERNITY HOSPITAL.—From the statements contained in this Report we observe that, during the past year, 1011 women participated in the benefits which the institution confers. In 1869-70 the number of the recipients of this charity was exceptionally large, being greater than in any former year. Comparing the year now ended with the one immediately preceding, there is a decrease of 159 in the total number of patients. This diminution, it may be mentioned, has occurred in both the indoor and outdoor departments of the Hospital; in the former there is a falling-off of 24, and in the latter of 135 cases. The Hospital, during the bygone year, has been very free from disease. There was little illness among the patients, and the recoveries were generally rapid and complete. Of the six deaths which occurred in Hospital, only one was occasioned by puerperal fever, whereas, among the outdoor cases, five women were cut off by this disease. In regard to the indoor case, the usual means were at once adopted to arrest and prevent the spread of the fever, and, as the result proved, with perfect success. As in former years, the system adopted for maintaining the Hospital in a salubrious state was, complete segregation, perfect cleanliness, thorough ventilation, daily fumigations with carbolic acid and chloralum, prevention of overcrowding, etc. The experience of this Hospital, for several years past, seems to prove that by the systematic and rigid observance of these measures, puerperal fever may be prevented from becoming epidemic in small Lying-in Hospitals.

PROGRESSION IN A CIRCLE.—Really there is no accounting for the actions of boards of guardians. It has been said that "jurors are not conjurors"; neither are guardians always on their guard. With a singular proclivity to blundering, the Llanfyllin Board of Guardians have cancelled the appointment of the present Inspector of Nuisances, on the ground that the Board had called upon certain parishes to adopt the Sewage Utilisation Act.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon*.

M.D. Cantuar.—The return of the number of Medical degrees granted by the Archbishops of Canterbury from 1840 to 1862, with the names of the persons on whom they were conferred, was made to the House of Commons in May, 1864; the following is a copy:—1840, Robert Hull; 1841, Sir W. Hyde Pearson; 1849, Joseph Laurie; 1850, William Bayes; 1851, Edmund Charles Johnson, Frederick Gilder Julius, and John Green Bishop; 1854, George Canney; 1855, John Hodgson Ramsbotham and Ralph Barnes Grindrod; 1858, Edward Cronin and William Baker; 1861, Edward Westall and John Rayner; and 1862, William Sherwin. The title is now registrable.

An Old Member inquires why the result of the Preliminary Examination in Arts, etc., which has just been concluded at the College of Surgeons, cannot be made known until about a month, comparing, as he states, so unfavourably with the same examination at the Hall. Write to the Secretary on the subject.

H. F. S.—Bishop Hall records a miraculous cure effected on a man by washing in St. Madern's Well, in Cornwall, to which he was three times admonished in a dream. Father Francis gives a particular account of the same case.

Mr. O'Rourke, Belfast.—John Browne, one of the Surgeons to Charles II., published, in 1684, a curious work entitled "Adenochoiradelogia; or, an Anatomick-Chirurgical Treatise of Glandules and Strumaes, or King's Evil Swellings." Laurentius denies to the Kings of England the power of healing the evil by the touch, and ascribes it only to those of France.

Chirurgian.—You will find the preparation and history of it in the Museum of the College of Surgeons.

W. D. S., M.D.—The Egyptian Æsculapius must not be confounded with that of the Greeks. The mythological veil under which all traces of the history of the Egyptian Medicine are to be found, serves only to demonstrate that the whole is to be looked upon as allegorical, so far as relates to the personages mentioned.

E. S. S. D.—The next examination for the "L.M." will take place in February. Twenty cases; fee three guineas.

Dr. Macmichael, Penzance.—The leading article on "The Quackery of the Ancients, and its Imitation in Modern Times," appeared in vol. xiv. of this journal, p. 43. We are assured that the Council of the College will not allow Mr. George Washington Evans to trifle with them in the matter to which we alluded last week. If your patient receives another of his pamphlets, send it at once to Mr. Trimmer, with the post-office envelope, to show the date when sent. On reference to the "Medical Directory," it appears that the "M.R.C.S." is his only qualification.

DISPOSAL OF SEWAGE.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Are you or your readers acquainted with the names of any towns where the sewage has been emptied into the sea, and where the inhabitants have been obliged to expend large sums of money to divert it away from the sea, on account of the nuisance it caused by being placed there?

Torquay. I am, &c., PAUL Q. KARKEEK.

FLUID MEAT *versus* MEAT EXTRACT.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In your impression of December 16 you have done me the favour to insert a communication, to which, instead of *Fluid Meat*, has been prefixed the title of "Meat Extract."

Not having adopted the name of "meat extract" for any preparation, I would ask you to allow this notice of correction, more especially as *Fluid Meat* has been so designated to mark its close relationship to meat, and distinguish it from extracts, or preparations, which contain only *some* of the constituents of flesh. I am, &c.,

140, Leadenhall-street. STEPHEN DARBY.

THE LATE ACTION AGAINST A MEDICAL MAN.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Will you allow me, through your columns, to acknowledge the following subscriptions on behalf of the testimonial fund now being raised for Dr. D. H. Watson, of Stockton, who, it will be remembered, was honourably acquitted of a charge of unskilful treatment, recently brought against him by a Miss Hutchinson, in the management of a difficult case of inverted uterus. Although getting a verdict and an order for costs against the plaintiff Dr. Watson is still called upon to discharge a very heavy amount, incurred during the conduct of his case, and which, from the inability of the plaintiff to meet the costs which have been incurred, Dr. Watson will have to pay. I have received the following sums:—

	£	s.	d.
Dr. Warburton Begbie, Edinburgh	2	2	0
Dr. Wm. Oliver, Stockton...	1	1	0
Dr. Geo. Oliver, Redcar ...	1	1	0
Dr. B. Meadows, London...	1	1	0
A. Davison, Esq., Cramlington	1	1	0
S.W. Rayne, Esq., Newcastle	1	1	0
Dr. G. H. Hume, Newcastle	1	1	0
C. G. Woodd, Esq., Penge, Surrey	1	1	0
J. Barugh, Esq., Stockton	1	1	0
E. H. Hughes, Esq. Stockton	1	1	0
A. Stocks, Esq., Stockton ...	1	1	0
Dr. Tinniswood, Norton ...	1	0	0
A Friend (R. L.), Stockton	1	0	0
E. Mandall, Esq., Stockton	1	0	0
Dr. Cuthbertson, Stirling ...	0	10	6
— Pybus, Esq., Stockton ...	0	10	0
W. J. Watson, Esq., Stockton	0	10	0
Mr. Hudson, Stockton ...	0	10	6
Anon., Stockton	0	10	6
Mr. S. Bowen, Stockton ...	0	10	0
Mr. J. Walton, Stockton ...	0	5	0

Further subscriptions will be thankfully received by Dr. W. Oliver, Stockton-on-Tees; Dr. G. H. Hume, Westgate-street, Newcastle-on-Tyne: or by Yours, &c.,

Stockton-on-Tees, December 18. GEORGE S. BANHAM, Hon. Sec.

THE GERM THEORY.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The following item may interest you:—In a book published in China in 1698, entitled "Chang Shêng, or the Art of Procuring Health," translated by Father Deutrecolles, and inserted in "Du Halde" (vol. ii.), there is the following passage: "Musk, and the blossoms of young oranges, contain imperceptible insects; therefore, do not put your nose to them, lest these small vermin get up to the brain. The air is full of imperceptible eggs (germs) of various small insects, which we suck into the stomach with our breath, but they cannot be hatched there for want of a fit medium; whereas the insects, which lay their little eggs in the mealy cup of flowers, may be drawn up by the nose with a ferment proper to hatch them." And again, "If in travelling by land you cross mountains burnt up by the sun, though ever so dry, do not drink of spring- or river-water on which the sun shines, for besides that it hath at that time pernicious qualities, it is often full of the spawn of innumerable insects."

The above contains probably the germ of the present germ theory.

Pekin, October 7. I am, &c., J. DUDGEON.

Octogenarian.—It is many years since the occurrences to which reference has been made took place, and, looking over some old papers from the curious collection of Mr. Stone, we came across the following "Shakespere, modernised (travestied)"

[Scene: The Secretary's office in the College of Surgeons—present, Sir William Blizard, in a towering passion, other Members of the Council, Mr. Wilde, solicitor, Messrs. Belfour, Stone, etc.] Noise of fighting and swearing in the theatre, from which rushes Smith, the old Bow-street Officer, bleeding.

The President: What bloody man is that! He can report, as seem'th by his plight, of the revolt—the newest state.

One of the Council: This is brave Smith, who, like a good and hardy Catchpole, fought 'gainst the rebel crew. Hail! honest friend; say to Sir William how stood the broil when thou didst leave it.

Bow-street Officer: Doubtfully it stood; as two spent swimmers that do cling together and choak their art, fierce Magnus Bolus, he from Bedford-square by young and gallows rascals was supported, and fortune on his dammed quarrel smiling, soon placed us on the floor; but all's too weak for brave Ledhitter (well he deserves that name). Disdaining fortune, with his brandished fist, which smoked with bloody execution (like Cribb's dog Billy), carved out his passage till he faced the knave, and ne'er shook hand nor bade farewell to him 'till he unseamed him from the head to heels, and held his galligaskins up in triumph.

President: O valiant Ledhitter! Most worthy officer!

Bow-street Officer: Mark! noble Doctors, mark! No sooner justice had, with warrant arm'd, compelled the younger fry to trust their heels, but the dissecting chap, surveying vantage, with strip'd-up arms and new supplies of Doctors, began a fresh assault.

Sir William Blizard: Dismay'd not this our Captain Ledhitter and gallant Ruthven?

Bow-street Officer: Yes! as vagrants headles, or as debtors bailiffs; but I am faint with bleeding—at the nose!

President: As well thy words become thee as thy wounds—they smack of claret both. Go, get him Surgeons. [*Exeunt.*

The next scene was at Bow-street Police-office, before Sir Richard Birnie, who bound over Mr. Wakley and his friends to keep the peace and be of good behaviour. The refusal to allow the theatre for discussion on any terms to its members has, as our readers know well, since been gracefully conceded by the Council on more than one occasion, and, curiously enough, on the last, to the entire discomfiture of the *Lancet* party. *Sic transit gloria mundi!*"

COMMUNICATIONS have been received from—

Dr. Powell; Mr. J. Lowe; Mr. Bankart; Dr. Allbutt; Dr. Stratton; Mr. J. Jones; Messrs. Blackwood; Mr. Karkeek; Dr. J. G. Wilson; Dr. Burrows; Mr. Banham; Dr. J. Dudgeon; Dr. Lockhart; Dr. J. Patterson; Mr. Sheriff Bennett; Messrs. Street Bros.; Dr. Aldis; Aneroid; T. S.; Mr. C. F. Moore; Dr. Gooding; Mr. Stephen Darby; Mr. J. W. Turner; Dr. John Chapman; Mr. H. S. Cowdell; Dr. McNab; Mr. T. Chambers; Mr. C. Finns; Dr. Clifford Allbutt; Mr. Wotherspoon; Dr. G. Burrows; Dr. E. Landwell; Mr. Edisbury.

BOOKS RECEIVED—

Wood's Chesterfield Almanack—The Power above Matter; an Address by Dennis D. Berdt Hovell, President of the Hunterian Society—Transactions of the Odontological Society of Great Britain, vol. iv., No. 1—Nicholson's Manual of Zoology, second edition—Bradley and Whitehead's Collated Statistics of English Surgery in Public Charities for 1870—The Utilisation of Sewage, and a Description of the "A B C" Process—Journal of the Scottish Meterological Society.

PERIODICALS AND NEWSPAPERS RECEIVED—

Croydon Advertiser—Scotsman—Indian Medical Gazette—Pharmaceutical Journal—Chemist and Druggist—North British Daily Mail—North Devon Herald—New York Medical Record.

APPOINTMENTS FOR THE WEEK.

December 23. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; King's, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

25. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

26. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

27. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 2 p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

28. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; West London, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

29. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

VITAL STATISTICS OF LONDON.

Week ending Saturday, December 16, 1871.

BIRTHS.

Births of Boys, 1134; Girls, 1129; Total, 2263.
Average of 10 corresponding weeks, 1861-70, 2057·9.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	1036	1085	2121
Average of the ten years 1861-70	754·8	726·7	1481·5
Average corrected to increased population	...	...	1630
Deaths of people aged 90 and upwards	...	...	...

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561189	2	11	6	3	9	2	6	1	3
North ...	751668	56	41	10	1	27	3	6	2	2
Central ...	333887	5	6	2	...	10	1	4	1	1
East	638928	12	18	8	...	27	2	3	2	3
South	986132	31	21	11	3	26	1	4	4	6
Total	3251804	106	97	37	7	99	9	23	10	15

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	30·226 in.
Mean temperature	39·9°
Highest point of thermometer	47·2°
Lowest point of thermometer	27·2°
Mean dew-point temperature	37·2°
General direction of wind	W. & W.S.W.
Whole amount of rain in the week	0·10 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, December 16, 1871, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1871.*	Persons to an Acre. (1871.)	Births Registered during the week ending Dec. 16.	Deaths Registered during the week ending Dec. 16.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3263872	41·8	2263	2121	47·2	27·2	39·9	4·39	0·10	0·25
Portsmouth ...	113450	11·9	68	50	50·6	25·6	38·7	3·72	0·07	0·18
Norwich	80533	10·8	51	75	45·5	23·0	36·6	2·55	0·28	0·71
Bristol	183298	39·1	112	113	...	...	...	...	...	...
Wolverhampton ...	68476	20·2	58	81	47·0	27·3	39·3	4·06	0·08	0·20
Birmingham ...	344980	44·1	294	260	50·9	29·7	41·8	5·44	0·06	0·15
Leicester	95882	30·0	91	56	49·0	24·5	38·8	3·77	0·07	0·18
Nottingham ...	86929	43·6	62	87	48·0	26·1	38·9	3·83	0·06	0·15
Liverpool	494649	96·8	354	304	49·0	30·8	43·0	6·11	0·38	0·97
Manchester ...	356099	79·4	245	270	47·5	31·0	38·7	3·72	0·83	2·11
Salford	125422	34·3	122	80	47·5	29·2	38·7	3·72	0·83	2·11
Bradford	146987	22·3	121	78	50·3	33·6	44·0	6·67	0·05	0·13
Leeds	260657	12·1	168	144	50·0	35·0	42·4	5·78	0·13	0·33
Sheffield	241507	10·6	198	169	48·0	35·5	42·3	5·73	0·06	0·15
Hull	122266	34·3	101	59	48·0	27·0	38·3	3·50	0·16	0·41
Sunderland ...	98797	29·9	68	83	...	...	...	...	...	...
Newcastle-on-Tyne	128677	24·1	96	75	48·0	35·0	42·6	5·89	0·37	0·94
Edinburgh	201728	45·6	113	130	49·0	27·0	38·5	3·61	0·50	1·27
Glasgow	479227	94·7	349	356	48·8	27·6	41·2	5·11	1·42	3·61
Dublin (City, etc.)	310565	31·9	141	219	51·2	32·8	43·7	6·50	0·20	0·51
Total of 20 Towns in United Kingd'm	7204001	33·8	5075	4780	51·2	23·0	40·4	4·66	0·31	0·79

At the Royal Observatory, Greenwich, the mean reading of the barometer in the week was 30·23 in. The highest was 30·33 in. on Tuesday morning and the lowest 30·13 in. on Saturday morning.

* The figures in this column are the unrevised numbers enumerated in April last, raised to the middle of the year by adding 1-40th of the rate of increase which prevailed between 1861 and 1871. As the population of Dublin and its suburbs showed a decline between the Censuses of 1861 and 1871, the enumerated number in April last has been inserted for that city, the population being assumed to be now stationary.

ORIGINAL LECTURES.

LECTURES ON THE PRINCIPLES OF THE TREATMENT OF FEVER.

By Dr. LIONEL S. BEALE, F.R.S.,
Fellow of the Royal College of Physicians; Physician to King's College Hospital.

Lecture I.

(*Concluded from page* 732.)

In very severe cases of fever, what we have to apprehend, and that which our greatest efforts should be directed to avert, is *stagnation of the blood in the small vessels, and cessation of the capillary circulation over a considerable part of the body.* To bring about this result, the following circumstances contribute:—

1. Failure of the force of the heart's action.
2. Alteration in the composition of the blood.
3. Growth of the bioplasm of the blood, vessels, and tissues.

I. Failure of Heart's Action.

In many severe attacks of fever the danger to life depends upon the weakness of the heart's action; and of those who succumb to fever, not a few are known to have had a weak heart, and that degree of power as regards the ganglionic nervous system which, although consistent with prolonged, steady, and equable work, is liable to fail if the demand for greatly increased work should arise. The cardiac mechanism may be well adapted for the ordinary requirements of the system in health, but, nevertheless, unable to bear a strain, and quite incompetent to discharge double duty even during a short period of time. There are many who are capable of performing steadily and constantly a moderate amount of labour without suffering, and may perhaps continue to do so, and without being laid up for even a short time, and may even reach in fair health the period of life when the power of active labour ceases, but who would be immediately deranged and in danger of being destroyed, if a double or treble amount of work were suddenly thrown upon them. In all cases of fever it is important that the Physician should endeavour to form an estimate of the heart's healthy power, for by good management we may be able to keep steady the force of the circulation throughout the whole period of the malady. During a critical period it may be necessary to excite the organ to increased action; and at another time it may be desirable to pour in nutrient food instead of stimulants, and thus slowly renovate the strength. There are cases in which, by the failure of the heart to propel the blood with sufficient energy through the capillaries, the patient's life is for a time in great jeopardy. By timely and active measures, we may succeed in exciting the heart to more vigorous action, and thus the patient may be successfully carried through a very dangerous period of the malady. In all cases of fever, it is important to watch very carefully for any indications of decided failure of the heart's action; but, at the same time, it is very necessary not to modify the treatment at every slight change that may be noticed in the force of the heart.

In slight febrile affections, the heart's action is usually sufficient for the work it has to do during the fever. If the feverish condition lasts more than a few days, and the heart contracts feebly, its vigour may often be restored by the administration of small quantities of easily digested food at very short intervals of time. Two or three teaspoonfuls of milk or strong beef-tea every two hours during the night as well as during the day may be given, and a little wine may be ordered if food alone does not have the desired effect. But if, in cases of fever which continue for a fortnight or more, we find the heart's action becoming decidedly weaker, it is necessary to stimulate artificially, at least for a time. A stimulating action is produced by certain remedies which act through the nerves. Stimulating liniments or turpentine externally will sometimes have the effect. Remedies which stimulate the olfactory and respiratory portions of the mucous membrane act in the same way; but the most direct as well as the most efficacious means is by the introduction of stimulants into the stomach; and these also act beneficially in other ways. Ammonia, chloric ether, and various kinds of spirits (when given not too much diluted) produce an immediate though indirect influence upon the force of the heart's contraction. This is proved by the fact that very soon after a little wine, brandy, or ammonia has been taken when the heart is acting very feebly, as during a partial faint, or from the influence of chloroform inhalation, the vigour of the heart's contractions becomes sensibly increased. The change is often noticed within a few seconds after the stimulant has come into contact with the mucous membrane of the stomach. This action, no doubt, depends upon the influence produced upon the ganglia of the sympathetic transmitted by afferent fibres from the skin (mucous membrane) of the nose, throat, respiratory passages, or stomach, as the case may be. In consequence, the blood is urged with more force through the capillaries of the body generally, and the tendency to death from this cause is postponed, and perhaps averted.

II. Alteration in the Composition of the Blood.

In this place we have to consider how we may prevent the textures and organs of the body being damaged, and life destroyed, by the altered blood circulating in the vessels; and also to inquire whether we can, by judicious interference, promote and accelerate the restoration of the nutrient fluid to its normal state.

It was formerly supposed that the chief thing to be guarded against in the treatment of fever was undue oxidation; but later investigations have proved that fever itself is due indirectly rather to changes consequent upon insufficient oxidation; and it is, indeed, probable that a febrile state may be engendered by long-continued insufficiency of this most necessary change. It is doubtful if the feverish state could exist in an organism in which the oxidising processes were performed perfectly and at a proper rate. There is good reason to think that if the noxious materials which accumulate in the blood in fevers and extensive internal inflammations could be more fully oxidised, they would soon afterwards be eliminated in the form of urea, carbonic acid, and other excrementitious matters which at last result from the destruction of bioplasm and the oxidation of the products of its death; but while these excrementitious matters, or the imperfectly oxidised materials from which they are immediately produced, continue to accumulate in the blood, the excreting organs cannot eliminate them or alter them fast enough. The latter organs may in many instances be excited artificially to increased action; and it is in this way that many diuretics, sudorifics, and purgatives often afford great relief, and restore the patient to health. But in serious cases, in which the strength is already much exhausted, more especially if the fever has yet a long course to run, there would be danger in pushing too far the use of such remedies. Moreover, the excreting organs cannot excrete some of these unoxidised animal matters. In not a few instances in which the noxious materials have unduly accumulated, it will be found that the secreting organs *cannot be made to act*; as the afferent nerves (*see* Note on page 731) are in part paralysed, our remedies are powerless. To give excessive doses in such cases would be very unwise, and by so doing we should render the condition worse. Under the circumstances indicated, however, there is danger of the imperfectly oxidised substances accumulating in the blood and in the tissues to such an extent as to place the patient's life in great jeopardy. And the danger is twofold. In the first place, many of the bodies are unstable compounds, and liable to decompose at the temperature of the body. The products of decomposition set free in the blood would very soon destroy the living matter of the blood and tissues, and paralyse and destroy the nerve-fibres and nerve-centres, in which case the patient must die. Secondly, if the compounds which cannot be excreted in the form in which they exist are not to undergo decomposition, they must be quickly taken up and appropriated by living bioplasm of some sort. As the bioplasm of the excreting organs is already surcharged to such an extent as to damage the organs by increase of its bulk, and in other ways, the living matter of the blood, and then that of the tissues of the body, begins to appropriate the excess of pabulum. The white blood-corpuscles increase in size and divide and subdivide, the minute particles of bioplasm grow and increase in number, and the bioplasts of the tissues enlarge, and new centres (nucleoli) make their appearance in them.(a) But these phenomena cannot occur without the action of the tissues being seriously impaired; and, worse than this, the increase of bioplasm in the blood inevitably leads to impeded capillary circulation, and to stagnation of the fluids in the substance of all the tissues of the body—the result of which, if local, must be destruction to the part of the tissue involved; if general, fatal to the whole organism.

But of the two circumstances just spoken of—the decom-

(a) "Report on the Cattle Plague," 1866.

position of albuminous matters, and the excessive growth of the bioplasm—the latter is by far the least dangerous, for the first is almost necessarily fatal, and rapidly so. But much of the noxious substances which have accumulated may be removed from the circulating fluid by the growth of the bioplasm, and temporarily stored in the form of living matter. Time may be gained for the excreting organs to right themselves, and that most favourable symptom in all cases—free excretion—may occur, in which case the surcharged bioplasm becomes at once reduced in volume, and is ready to appropriate more of the dangerous pabulum. The blood is thus relieved. Its bioplasm again takes up the excess of pabulum in the tissues, whose bioplasm gradually returns to its former volume, and there is every prospect of the normal balance of the nutritive and destructive processes being gradually restored. If, however—as but too frequently happens—the proportion of the noxious matters already formed be very great, the bioplasm continues to increase unduly; and, as has been mentioned, this increase may lead to a fatal result. But still, the state of things established by the undue growth of bioplasm, unlike that resulting from putrefactive decomposition, is not immediately or *necessarily* fatal; and if by the process life is destroyed, that event is considerably postponed.

III. Growth of Bioplasm.

This, as will have been inferred from the remarks under the last heading, is a very serious change, characteristic of the febrile and inflammatory state, and it is that which most frequently leads to a fatal result, and when recovery takes place not unfrequently causes impaired health or chronic disease. The change was referred to in my "Report on the Cattle Plague" published in 1866, and before that time had been fully described in my lectures at King's College. The alterations are most remarkable, and have been figured by me in numerous illustrations. It is this process of undue growth of bioplasm, which from the first we must endeavour to control by treatment. Although it is some years since I pointed out this most important fact, and laid great stress upon the increase of bioplasm in all fevers and inflammations, it has not, I think, yet attracted much attention. The phenomenon has been discussed by me in several memoirs, and in this place I propose to consider the matter mainly in its practical bearing. Not only shall I be able to show that the increase of bioplasm affords a highly important indication for treatment, but that many different remedies which experience has proved to be of use in febrile and inflammatory diseases are valuable, on account of the influence they exert in checking the growth of bioplasm and preventing the impending destruction of tissue; and although in too many instances the process has proceeded beyond our control, yet even in this case we can often retard the inevitable result.

In bad cases of fever and general inflammation the patient may die, as already indicated, from failure of a congenitally weak heart; but the life of those who have the advantage of a strong and vigorous organ is often destroyed at a later period of the malady by the excessive growth and multiplication of bioplasm in the blood, one consequence of which is plugging of so many capillary vessels of the tissues as to lead to complete suspension of their action, and to damage or destroy their structure. If life be preserved, the structure of the capillaries, nerves, and adjacent textures may be irreparably damaged; and in this way parts of organs of the highest importance to life may be so altered that they can never regain their former healthy condition, in which case the organism will never be so sound, healthy, and vigorous as before.

In the tissues of many cases of death from fever of many different kinds, both in man and animals, I have seen the capillary vessels and small arteries and veins completely obstructed by minute particles of rapidly growing bioplasm, and in not a few instances the minute vessels are dilated in the interval between two *constricted* points, which leads me to conclude that the bioplasm had actually increased in amount by growth long after the circulation had completely stopped. The walls of the vessels are much altered, and in some instances the bioplasts are five times as large as in the normal state, projecting much into the interior of the vessel, and dividing and subdividing freely—or proliferating, as the saying is.

So far, therefore, from there being increased activity of the circulation (as inferred from the rapidity of the heart's action) associated with the hot feverish state—as used to be supposed—the latter is characterised by restricted capillary circulation and a tendency to complete obstruction of so many of the capillary vessels as to damage tissues and organs and to cause death. Now, it is this tendency to the increase of the bioplasm that he who treats fever must endeavour to avert; and one thing which contributes in a most important degree to effect this end is the maintenance of the force of the heart's action, as has been already pointed out. By promoting free circulation, so as to keep the whole mass of the blood constantly moving, and mingling, and changing, not only is the growth of its bioplasm impeded, but the bioplasm already formed is exposed to oxidation and other changes, which lead to its disintegration, to be soon followed by the removal of the products of its decay. Whenever the circulation flags, the increase of the bioplasm is favoured, and the first abnormal augmentation takes takes place in those organs, such as the liver, spleen, and lymphatic glands, in which the circulation is slowest in the normal state, and where the bioplasm is renewed according to the very moderate demands of the system in health.(b) But, besides this advantageous effect, the free action of the circulation renders possible the removal of many noxious materials tending to produce a paralysing or poisonous influence upon the nerves distributed to the capillaries, small arteries, and veins of the skin, urinary organs, and bowels, and the nerve-centres with which they are connected, upon the integrity of which the condition health is absolutely dependent.

Such, then, so far as I have been able to make out, is the interpretation of the phenomena which may lead to the destruction of life if bad cases of fever are left to pursue their natural course. "Nature," it seems to me, manifests neither a conservative nor reparative action during the course of fever, and death may result long before the period arrives when natural repair becomes possible. But, then, can "Nature" be held responsible for the development of the feverish state? The natural history of febrile diseases is pretty well known by this time, and as in many cases we are able to anticipate increase of feverishness, we may place the patient in a more favourable condition to withstand it than "Nature" unaided can achieve, and we may mitigate the force of a blow, although we are powerless to ward it off.

"Expectant Medicine" in severe cases of fever is not justified by the facts known concerning fever, and an expectant attitude will no more save life than it will extinguish fever-poison, effect sanitary improvements, or preserve people in a state of health which will enable them to resist the influence of disease-germs. Expectancy, as a principle, is no more justifiable than is the giving of harmless pilules or coloured water as a practice. In the treatment of real disease, mere passive expectancy means the denial of knowledge, the ignoring of broad facts of observation and experiment, a contempt for the lessons taught by experience, and a disbelief in all that has been handed down to us by those who have observed, and laboured, and thought before we lived.

ORIGINAL COMMUNICATIONS.

HEART DISEASE.

By METCALFE JOHNSON, M.R.C.S., L.A.C.

The term at the head of this paper bears marks of an indefiniteness which characterises much of the knowledge respecting the pathological states of this organ, and the physiological results which naturally attend any prolonged pathological change, and reminds us of Shakespeare's expression of—

> "The heart-ache and the thousand natural shocks
> That flesh is heir to."

The popular notions about heart affections are many of them most erroneous, not only in their pathological conditions, but in their physiological relations.

The old language of poesy ascribes to the heart that which we now associate with the brain. Thus we have the "thoughts of the heart," "love from the heart"; and the qualities of fear, boldness, together with all emotions such as end in laughter or tears, are all in the language of figure ascribed erroneously to the heart.

But does the heart ache? As a rule, the greater part of the pain which is referred to the heart is due to some other organ—such as the stomach, or even the large intestine. True, in death from valvular disease, or aortic aneurism, or in rupture of the heart, there is generally an ill-defined pain referred to this region; but this may in such cases as aneurism or rupture

(b) From observations I have made, I think it probable that in acute, severe fevers from ten to twenty times as much bioplasm is produced in a given time as would be formed in the healthy state. Not only is the growth of bioplasm favoured in those morbid states, but destruction of the products of its decay is greatly impeded and retarded.

be referred to pressure upon parts of the body in which sensitive nerves are more nearly and more freely distributed—such as the pleura and the intercostal spaces and muscles.

As a rule, then, we may safely say that heart disease is more or less free from severe pain; for even in the acute stage of rheumatic pericarditis the sense of pain is not sharp, but a dull heavy sense of constriction—very different from the cutting pain of a joint under the same pathological condition.

The pain and uneasiness which are associated with the heart are generally due to some distended condition of stomach or large intestine, or even in many cases the most acute pain is referable to the lower end of the œsophagus. But, as a rule, the palpitation or irregular action of the heart (even where the natural rhythm of the organ is interfered with) is due, in most cases, rather to functional disorder of the alimentary organs than to the existence of morbid change of structure in the heart or its appendages.

Perhaps there is no disease, on the whole, so appalling to the non-Professional mind; and the verdict of "heart disease," passed ever so kindly, cautiously, and quietly by the blandest of Physicians in the most luxurious of consulting-rooms, is more awe-inspiring than the roughest sentence of death by the harshest judge in the most barren court and before the most brutal of audiences.

It at once conjures up all the horrors of a sudden cessation of life, a summons from the next world without a moment's warning. To the lay mind all the forms of heart disease are centred in one; and, as a rule, the greater part of the fears which are excited in the minds of invalids respecting heart disease are groundless, as the pains, as before remarked, are referable to the stomach, bowels, œsophagus, or, at any rate, to some part of the body under the control of the great sympathetic nerve.

Now, how far this irregular action—this palpitation, this pain, and the sense of præcordial fear—is due to physical causes, such as encroachment on the heart's space, or otherwise, does not seem always clear. In some cases, doubtless, the mere mechanical distension of the greater end of the stomach pressing upon the pericardium (especially if there be any pathological change there) is sufficient to cause not only pain, palpitation, but an intermittent action of the organ, which is very distressing and fear-inspiring. Here one of the privileges of the Physician resulting from accurate diagnosis affords him not only satisfaction to himself but a power of relief to the patient from both pain and fear. But in addition to the simply mechanical obstacle to the heart's regularity, there are causes which act through the sympathetic filaments of the ganglionic system, which, connected on the one hand with the abdominal viscera as their special ruler and regulator, extend their function likewise to the especial stimulus to the heart's action, and, acting as the undigested bit of cheese on a blot of mustard, "which produced the Christmas ghosts" of "Old Scrooge," will oftentimes give rise to the palpitations which excite the fears of heart disease.

The lay opinion respecting the prospect of recovery in heart disease is, as a rule, very despondent, and the fear of sudden death naturally attaches to this opinion. My object in the present remarks is to endeavour not only to throw a light of greater hopefulness upon this lay opinion, but to express an opinion that the Professional despondency is often too great in respect of this affection. From the opportunities I have had of judging in this matter, I am inclined to believe that in many cases the Professional opinion condemns the patient, even while there is hope in treatment. I speak thus upon facts that have come under my observation.

About four or five years ago I was called to a woman, aged 35, suffering from endo- and exo-cardial disease, whose heart's action was a mere flutter. Œdema filled almost every portion of her cellular tissue. She was unable to move, or be moved, from the bed, even for purposes of necessity. I was sent for as a "forlorn hope." Suffice it to say, without giving details of the case, that she is now living, and apparently in good health, and has ever since her recovery been following the arduous duties of what is called a "charwoman." It is now some years since I saw her, but I hear she is well and strong. Of course, it is not to be supposed that the pathological condition is changed for one of perfect health; but the condition of impending death is changed for one in which the functions of life can be performed without pain and suffering. On this occasion, I was informed, in the usual language of such cases, that the previous Doctor had given up hopes of the case, and recommended her to prepare for sudden death. At any rate, no active treatment was being employed at the time when I was called in, nor were there any signs of such having been the case.

In the case of heart disease, I am disposed to believe that even Professional prognosis is often formed rather on the basis of opinion handed down by the tradition of instructors and the guide of books than by tabulated statistics of actual experience; and my opinion will receive support from facts, that disease of the heart is looked upon by the Profession at large as belonging to that category of diseases of which cancer and consumption stand at the head—cases whose insubordination to ordinary treatment leads us too often to the inaction of despair. In the case of cancer, of course, we have hope in removal; but a fairly started tubercular degeneration, in which lung tissue breaks up, bears with it such a general hopelessness as to induce the greater part of our body to resort simply to palliatives and artificial stimuli.

That this phase of opinion in reference to heart disease is to be discouraged is shown by the following case:—

In January, 1863, B. A. L., aged 12, had been suffering from rheumatism for some time, and at the commencement of my charge of the case, he was seated in a high-backed chair, from which he never moved, night or day, for nearly two months. His legs were filled with anasarca; his abdominal cavity much distended with serum; his breathing very rapid, and distressed by a constant hacking cough; all his food was vomited with great distress; his heart gave audible evidence of extensive endo- and exo-cardial mischief; in fact, his symptoms were of such a nature as to preclude any reasonable chance of recovery. In this state he was repeatedly blistered, and medicines of various kinds exhibited, and in due time his symptoms abated, and he recovered so far that about six months since (more than eight years after his severe illness) I saw him attempting to jump a wall five feet in height. He is now well, and enjoying his life free from anxiety, as any other man. There is, of course, disease remaining, but at present it is of a harmless nature.

Nor should we feel despondent as to the prospect of recovery in great part, even though the case be that of a rheumatic person advanced in years.

Mrs. W., aged 62, had been a sufferer from acute and chronic rheumatism for some years, which on one occasion attacked the meninges of the brain, producing delirium. (This, in my experience, is very rare.) The heart, however, was left with evidences of aortic valve disease. There was also the dyspnœa which appears to arise from pressure on the recurrent laryngeal nerve by aneurismal enlargement. The legs were beginning to show signs of anasarca. The irritability consequent on the speedy expectation of death was manifested to a considerable degree. I therefore prescribed morphia and digitalis to be taken at any time when in pain or dyspnœa. It is now more than four years since she commenced this treatment; and on calling upon her the other day, I was agreeably surprised to find that hardly any murmur, systolic or diastolic, was perceptible. The lady was walking about very comfortably, and, so far as I could see, likely to remain a creaking old woman for many a year to come.

In July, 1871, I was consulted by a lady who had been suffering for many years from heart disease. She has now systolic endocardial murmur with dyspnœa; slight œdema of the legs; heart's action very rapid and irregular, caused at the time of my being consulted by an excessive attack of menorrhagia of some months' standing. After using remedies to arrest the uterine discharge, which yielded in a few days, the region of the heart was freely blistered, and every means used to restore tranquillity. Her symptoms soon became very much less aggravated, and in October her sister wrote me word that Miss —— had not been so well for three or four years.

W. T., aged 52, never had rheumatic fever, but has been a very free liver. Complains of dyspnœa, cough, præcordial pain. Can lie flat in bed; no choking in throat; systolic and diastolic bruit; heart's action very rapid—in fact, it sounds like a flutter more than a systematic pulsation. After the use of a blister and some digitalis he was much relieved, and now, after repeating the process—about a fortnight having elapsed—he is almost fit to return to his usual occupation as a stonemason.

From the preceding cases it will be seen

> "What drugs, what charms,
> What conjuration, and what mighty magic"

have been used. My faith relies mostly on the use of the counter-irritation.

In speaking of remedies, it is so difficult to be certain what evidence is here reliable; for it can hardly be doubted that, if we would believe the testimony of Medical witnesses, evidence

could be brought to show that every drug that exists in the Pharmacopœia is potent to the relief of every evil under the sun. But it might safely be said that should we remove almost any bottle from the shelf for twelve months, yet our mortality-list would be neither longer nor shorter. *Quot homines, tot sententiæ* is true in such a *quæstio vexata* as this. Nevertheless, the testimony of many men has been given in favour of blistering. Now, as to the mode in which the blistering process is brought about, I can speak with confidence of one preparation which has never failed me, and that is a liquid prepared by Messrs. Bullen and Birt, of London. The results of the application of this liquid are not only more certain to be efficacious, but attended with less pain than the old fly-blister process. Moreover, I am inclined to think that less danger of strangury is experienced when this liquid is used.

Of the use of drugs, one, at least, requires to be spoken of; and the effect of opium in relieving pain must not be passed over.

Of the *modus operandi* of opium, it may be said that apparently this drug acts by producing a numbness or paralysis of the extremities of the ganglionic nerve.

Observation of the effects of the hypodermic injection of morphia will show us the following train of symptoms:—First, in about five or six minutes after the morphia has been injected, a sense of constriction is felt at the pit of the stomach; shortly after, this tightness extends itself to the front of the throat, beneath the pomum Adami. These sensations are shortly followed by relief of the pain in the part affected, and sleep ensues with more or less rapidity. An opinion may here be hazarded (as the sensation is peculiar, and more of a constriction than a pain) that the first feeling at the pit of the stomach is due to the toxic effects having reached the semilunar ganglion, while the sensation in the throat is due to effects upon the cervical ganglia, which, acting on the middle cerebral artery, produce relaxation of the minute arterics, whence ensues "Nature's sweet restorer, balmy sleep."

The *ratio medendi* of counter-irritation is, I think, such as leads us to confirm the old opinion that congestion does not take place in two parts of the body at one and the same time, and that if perforce (as by counter-irritation) the blood be directed to fill the more minute capillaries in the part to which the blister is applied, the blood will be relieved from injecting the capillaries of the part suffering from congestion.

Some years' experience has led me to think that this effect is produced more readily when the parts are in proximity—that is to say, the nearer the counter-irritation is applied to the part undergoing pathological change, the better the chance of success in diverting the congestion.

I am inclined to think I have on more than one occasion seen life lost for want of applying this remedy to the right spot. The efficacy in relieving congestion in the base of either lung posteriorly, by a blister placed over the seat of friction, is astonishing when first made acquainted with it; and I have seen patients suffering from pleurisy or pneumonia, who referred their pain to the front of the chest, blistered over the seat of pain—this is, of course, in the olden days; one would hope it is not so now—and I have afterwards found the crepitation, dulness, and all the other symptoms of disintegrated lung, but not till too late to remedy this defect by counter-irritation over the seat of disease. On these grounds I would insist on the necessity to apply your counter-irritation strictly over the seat of mischief. If the disease be aortic, let the remedy be aortic; if pericardial, to the apex of the heart; if mitral, beneath the axilla, over the seventh or eighth rib.

Trivial as these remarks may seem to be, experience has shown me that they are of importance in that great conflict in which the Medical man is daily found

> "Entering the field against the grisly foe."

The hypodermic injection of morphia, always reminds me of Hamlet's question—

> "Who would fardels bear
> When he himself might his quietus make
> With a *bare bodkin?*"

Lancaster.

Ether as a Beverage.—In concluding some observations on the supposed mixing of chloral with beer, the *Chloralum Review* says that the practice of drinking sulphuric ether is on the increase in the North of Ireland, and that one extensive Dublin manufacturer of ether sends the greater part of his production into the far northern counties, particularly Antrim.

DEATH FROM MALARIOUS POISONING.—SUSPECTED STRANGULATED HERNIA.

By J. F. FAYRER, M.D., C.S.I.,
Professor of Surgery, and Senior Surgeon, Medical College Hospital, Calcutta.

On the morning of August 6, 1871, I was requested by a native Medical officer to see a case of supposed irreducible hernia, with symptoms of strangulation setting in. I found Mr. ——, aged 28 years, a healthy, muscular young Englishman, of light complexion, and said to be of most active and temperate habits, suffering from a swelling in the left groin, below Poupart's ligament, which was painful on pressure, and accompanied by general abdominal tenderness. I observed a similar, though smaller, swelling in the other groin; this was much less painful. He was feverish; pulse 104, and moderately firm. His face and neck were covered with a bright red efflorescence; this, I afterwards learned, was usual whenever he was at all unwell. It appears that the day before (the 5th), he had been out greater part of the day, and had fatigued himself much by attending an auction. He also said that, in jumping out of his buggy, he had given himself a strain, to which he ascribes the pain in the groin. He came home at 4 p.m. The day was very damp and sultry—a genuine Calcutta August day. He told his wife that he had a gnawing pain in his stomach, and that he thought it was probably due to fatigue and hunger, and accordingly asked for his dinner. He ate some, but felt no better. Soon after eating he had a sharp rigor—the introduction to all the phenomena of a severe ague fit. The bowels, meanwhile, had acted, and he voided some greenish matter—it was so described; I did not see it. During the thirst, which became excessive, he drank iced water, which was immediately rejected each time; and this continued for some hours during the night. The groin about this time swelled more, and became more painful, the pain extending over the abdomen. It did not appear to have been more severe about the umbilicus than elsewhere. He passed a restless and troubled night; the pain severe, the nausea and vomiting frequent. The fever, which was very severe, abated towards morning. The Babu, suspecting a femoral hernia, asked me to see him. At this time (10 a.m.) sickness had ceased for some hours. The bowels were said to have acted scantily during the night. I examined the swelling in the groin, and sent him off to the Hospital, where he was to be carefully watched, and a report sent to me if any further indications of strangulation made their appearance. I doubted the existence of a hernia, but as the case was obscure, and I could not remain with him, I thought this the best course to adopt. He was depressed and anxious, and suffering great pain in the abdomen and groin.

It appeared that he was rather better and felt easier after reaching the Hospital. Nothing further suggestive of strangulation occured. At about 2 p.m., symptoms like those of the day before recurred. At about 4 p.m. his breathing, which had been hurried, became more so. Cold sweats covered his body, the pulse became rapid and feeble, and all the indications of collapse rapidly set in. I was sent for, and found him evidently rapidly sinking. He was in intense distress from dyspnœa, and his breathing was painfully gasping and hurried. The face and the lips were dusky and livid; pulse not perceptible at the wrist. Sinapisms were applied. Stimulants and quinine were freely administered, both by the mouth and as enemata. He was perfectly conscious—painfully so, indeed. Slight chloroform inhalation seemed to soothe him; but within half an hour after I saw him he ceased to breathe.

Post-mortem Examination, at 9 a.m. on August 7.—The body was that of a muscular, well-formed man. The abdominal viscera were generally healthy. The spleen and kidneys were quite normal. On the surface of the liver were a few pale patches about the size of a sixpence, but they were quite superficial. There was neither suppuration nor congestion round them; the viscus presented no structural change, and was otherwise healthy. There was no hernia of any kind; the inguinal and femoral rings were perfectly natural. The swellings in the groins, which on investigation I found had been there for some months, probably years (though much smaller than at present), consisted of thickened areolar tissue round a cluster of indurated glands. The intestines were natural; no choleraic fluid was found within them. Thorax: Lungs intensely congested, especially at the back, and containing numerous patches of pulmonary apoplexy throughout their structure; they were œdematous, and the bronchial mucous membranes were deeply congested and

covered with frothy mucus. The heart was normal, and firmly contracted; both sides contained small, firm decolorised clots, extending into the aorta and pulmonary artery; all else was normal.

This was a very interesting as well as a somewhat obscure case. It is an example of the rapidly fatal effect sometimes produced at this season of malarious poisoning—the weather at the time (August) being hot, damp, and replete with malarious influences.

The symptoms were such as not unnaturally, considering the state of the groins, to suggest a strangulated femoral hernia; indeed, so much so, that I was much tempted to cut down on the swelling to remove all doubts. But when I saw him after removal to the Hospital, the collapse was so complete that I did not do so. Death was due to the pulmonary engorgement, accelerated by the formation of fibrinous coagula in the right side of the heart. The overwhelming action of the malarious poison can only account for the rapidly fatal phenomena. The patient was a very healthy and temperate man, his organs were sound, and he had not been ill for months before the day on which this illness commenced. A certain amount of enlargement of the scrotum, combined with hydrocele, together with swelling in the groins, suggest the existence of an elephantoid taint; but in other respects he was free from disease.

Calcutta.

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Medical Times and Gazette.

SATURDAY, DECEMBER 30, 1871.

ANNUS MEDICUS 1871.

For some time during the autumn her Majesty the Queen suffered very much from debility and general *malaise*, then from sorethroat, and finally an abscess formed in one arm, and had to be opened. Her Majesty was so weakened by all this, that for many days she was not only unable to leave the house, but was entirely confined to her own apartments. Her illness was not at any time considered at all alarming by her Medical attendants, but the public could not help feeling anxious about an indisposition which was serious enough to interfere greatly with the regularity and activity of her Majesty's habit of life, and were much relieved when, in the beginning of November, it became plainly certain that she was steadily regaining strength, and would shortly be able to bear the fatigue of the journey from Balmoral to Windsor. A statement was widely circulated at one time that her illness was the result of revaccination in the early part of the year, and anti-vaccination agitators so persistently and industriously endeavoured to spread and insist on the truth of the rumour, that at the end of October Sir William Jenner publicly and formally contradicted it, in a letter in which he stated that he "gave the most unqualified contradiction to the report. There is not a shadow of foundation for it in facts. Her Majesty's recent illness did not commence till many months after the revaccination. There was no connexion, direct or indirect, between the two."

Scarcely had the uneasiness about her Majesty's health been set at rest, when the public were alarmed by an official announcement that H.R.H. the Prince of Wales was suffering an attack of typhoid fever. On October 30 the Prince went to visit Lord Londesborough, at Scarborough, and remained there till November 4. He then returned to Sandringham, celebrated his birthday there on the 9th, and was apparently quite well till the 13th, when, on returning home from shooting, he complained of chilliness, lassitude, and depression; and next morning a whitlow appeared on the forefinger of the right hand. This was promptly cured, but on the 20th the febrile state was greater than the whitlow could be held accountable for, and headache was a predominant symptom. On Tuesday, the 21st, his Royal Highness's Medical attendants, Dr. J. Lowe, of Lynn, and Mr. Oscar Clayton, diagnosed the attack as one of typhoid fever, and Dr. Gull was telegraphed for, and, on his arrival on the 22nd, agreed in the diagnosis and treatment. On the 23rd Sir William Jenner arrived from Scotland, and took charge of the case with Dr. Gull and Dr. Lowe. The attack proved to be a severe one—the symptoms were all strongly pronounced; the functions of the sensorium were greatly disturbed, and at one time the Prince's temperature rose to 105·6°; but there were no complications. His strength continued good, he took nourishment well, and it was known that he had an excellent constitution, fortified by an active out-of-door life; so that the public, though gravely anxious, felt hopeful rather than alarmed as to the result. The bulletin on the morning of December 7 was assuring, as it spoke of the regular decline of the symptoms; but the next day the public were greatly alarmed by the announcement that the previous night had been a "very unquiet" one, and that there was a considerable increase in the febrile symptoms; and from this time till the 14th the Prince's condition was such as to excite the very gravest alarm. One of the most dangerous complications of enteric fever—bronchial irritation, with excessive secretion into the bronchial tubes—had supervened, and this state, which causes severe dyspnœa, was accompanied with most alarming attacks of reflex spasm, and with great prostration. The danger was at times extreme, and for some days the Prince's life hung in the balance. The public anxiety and alarm were intense, and as the 14th approached, and still the bulletins were more and more gloomy, it was impossible not to remember that on the evening of December 14, 1861, the Prince's Father had, while suffering from the same disease, died from sudden intense congestion of the lungs. Most happily, however, the bulletin issued at 1 a.m. on the 14th spoke of less restlessness; that issued at 8 a.m. contained the glad news that the Prince "had slept quietly at intervals during the night," and that there was "some abatement of the gravity of the symptoms." From that date till now the progress of the Prince towards convalescence and recovery has been steady and all but uninterrupted. After such an illness recovery must necessarily be slow, and for a considerable time the utmost care and watchfulness are required. But all has hitherto gone on well; defervescence gradually became complete, strength has gradually and steadily increased, and there has been complete absence of intestinal complications, and of any continuance of pulmonary trouble.

From the 14th the Prince's progress was so satisfactory that before the end of the week her Majesty, and several other members of the Royal family, ventured to leave Sandringham. The departure of Sir William Jenner for a time, and the diminution in the number of the daily bulletins, were also very assuring signs. But, after the strain of the intense anxiety and excitement of the previous days, the public mind naturally remains unusually sensitive, and susceptible of renewed alarm. And this was well and

markedly shown by the uneasiness excited by the bulletin issued at noon on Friday, the 22nd, though it only stated that the Prince had "passed a rather less quiet night," and added that "the general conditions continue as yesterday." After that the daily report was quite satisfactory till the 27th, when it stated that the Prince "had passed the night quietly, but convalescence is retarded by a painful affection above the left hip, attended with some feverishness." This affection is a merely local one, not having any connexion with the hip-joint, or with any of the pelvic viscera, and need not cause any apprehension; and the report of to-day (the 28th) is quite satisfactory. After any prolonged and exhausting illness, and especially after enteric fever, variations in the daily progress to health must be expected; and it is true that for long there remains a possibility that a too great haste to be well, indiscretions in diet or exercise, or some other cause, may light up very grave evils. But we know that the Prince will be constantly watched over and guided with the utmost devotion and the greatest skill and experience; and we may now with most grateful hearts and a happy confidence look to his perfect restoration to health.

Turning now more strictly to our subject—the Medical history of the year—we do not know that the Medical year 1871 can be credited with any great successes or triumphs; but, on the other hand, it has not been marked by any great disappointments or failures. It may perhaps be most fairly considered to have been one of those quiet years which have, happily, no special history. The most striking Professional Medical gains for which the year will be noted will probably be the increased use and more firmly established value of M. Reverdin's discovery of the mode of treating large or indolent ulcers, by means of transplanting small portions of skin on to the granulating surface; and the revival of the external use of cold in the treatment of hyperpyrexia, especially in cases of very great increase of temperature, as in one form of rheumatic pain.

The epidemic of small-pox, to which we alluded in the "Annus Medicus" of 1870, increased in severity and extent through the early part of the present year, till, in one week in February, the deaths from it in London reached the number of 227. Then it slowly, and with oscillations, declined, till, in the third week of October, the deaths from small-pox in the Metropolitan districts numbered only 53, though truly it is sad enough, if not disgraceful, that small-pox should be able to carry off that number of victims in London nearly a century after Jenner's great discovery. And, worse still, the disease is now again on the increase; in the week ending December 9 the deaths from it, in London, were 104, and there is every reason to fear that during the winter our Hospital accommodation for small-pox patients will again be strained to the utmost. Few parts of the country escaped the epidemic, and some of the provincial towns suffered very severely from its ravages. And, indeed, it was more or less rife all over the Continent, in some parts of which it was more generally prevalent, and more fatal even than with us.

At the end of the summer and during the autumn we were threatened with an invasion by cholera, but, happily, the danger gradually passed away for the time. The Privy Council adopted active and fairly prompt measures to prevent the importation of the disease through our seaports, and roused the health authorities to a state of vigilance and preparation which, it is to be hoped, will not be allowed to slumber next year, when the danger of a cholera epidemic will most probably again arise.

Last year we expressed a hope that our legislators would this year be able to devote more time to domestic legislation. The Reform Bill question, the Irish Church and Land Bills, and the Education Bill having been got out of the way, there seemed good reason to expect that, if wars or rumours of wars did not interfere, the Home Secretary might give Parliament some good work to do, and that her Majesty's Ministers might bring forward some really comprehensive sanitary measures. The way was not stopped, happily, by the Foreign Secretary, the Secretary for War, or the head of the Admiralty, and the Home Secretary did propose great things; but, alas! most of his measures were stillborn, and Government was so absorbed by a Ballot Bill, which did not pass, that very little indeed was done in the way of sanitary legislation. We may, perhaps, however, be thankful to the Ballot Bill for the fact that Government let us alone as a Profession. There was no Government Medical Act Amendment Bill, and two Medical Act Amendment Bills introduced by private members—one, which we may, perhaps, be permitted to call "The *Lancet* Bill," fathered by Dr. Lush, and the other the Bill of the Irish College of Surgeons, taken care of by Dr. Brady—lacking the support of Government, reached the second-reading stage, and were then withdrawn. Another Bill, threatened by the British Medical Association, did not get so far. Mr. W. E. Forster said that he could not pledge the Government to bring in a Bill next year, "but it was their wish and anxiety to do so." Taught by experience, we may be permitted, perhaps, to express our hope and anxiety that Government will let us alone.

It must not be forgotten that the Government did manage to pass three Bills which may be classed as Sanitary. The "Vaccination Amendment Act Bill" made the appointment of Vaccination Officers by guardians of unions or parishes obligatory, instead of permissive only. The Bill, affecting to make vaccination compulsory, as it first left the House of Commons contained a clause inspired probably by the Romish practice of the sale of indulgences, for it granted freedom to continue to disobey the Act with impunity to anyone who paid one penalty of twenty shillings, or two penalties of any amount. Our hereditary legislators, however, struck the clause out, and the Lower House, rather than let the Bill be lost, agreed to the amendment.

The "Act to amend the Metropolitan Water Act, 1852, and to make further provision of the due supply of water to the metropolis, and certain places in the neighbourhood thereof," though a "patch" Bill, was, as originally introduced by Government, strong enough to be likely to prove a really useful measure; but it was so altered and weakened by amendments that very little good can be expected from it, and Lord Halifax informed the House of Lords that "further legislation would be desirable next session to insure a more abundant supply of pure water for the metropolis."

The "Act for constituting a Local Government Board, and vesting therein certain functions of the Secretary of State and Privy Council concerning the public health and local government, together with the powers and duties of the Poor-law Board," is a really large and valuable Act. It may be looked upon as really establishing a Ministry of Health, and is the first result of the valuable report of the Royal Sanitary Commission. The next will, or at least certainly ought to be, the introduction into Parliament by Government, very early next session, of a large and comprehensive sanitary measure, to "consolidate the present fragmentary and very confused sanitary legislation," and providing fully and positively for the organisation of sanitary districts and local health authorities. The intense and universal anxiety excited by the nearly fatal attack of typhoid fever from which the Prince of Wales is hardly yet convalescent, the death of Lord Chesterfield from the same disease, contracted apparently from the same source, and the other circumstances connected with the Prince's illness, have aroused a degree and extent of interest in sanitary science, and the prevention of disease, that will give the Government immense advantage and assistance in legislating on those subjects if they act promptly and without hesitation. They will be inexcusable if, by weakness of purpose, hesitation, or loss of time in the promotion of mere political measures, they let slip such a rare opportunity for

enacting laws that may lead to the annual saving of thousands of lives.

Besides the Royal Sanitary Commission, the Royal Commission on the Contagious Diseases Acts also made their report—a very able and important document, which must necessarily cause next year the introduction of a measnre of some sort on the subject by her Majesty's Government. What that measure is likely to be, no one, we should imagine, will venture to predict—unless, indeed, the observation of the effects that have apparently been induced by agitation and clamour, on the delicate nervous organisation of the most prominent and powerful of her Majesty's Ministers, may be thought to warrant the suspicion that the activity and more than forty-women-tongued power of a comparatively small body of agitators may lead Government to propose the total repeal of all the Acts.

Mr. Charley obtained a select committee to consider the best means of putting down baby-farming, and Mr. Dalrymple withdrew his Habitual Drunkards Bill on the promise of a select committee. Both committees may be expected to furnish valuable information and recommendations for much-needed legislation.

The General Medical Council met on July 4, Mr. Quain taking his seat as member for the Royal College of Surgeons, instead of Mr. Cæsar Hawkins, and Dr. Gull as member for the Crown, in place of Dr. Rumsey. Of course, everyone was glad to see the Council reinforced by a man of Dr. Gull's ability and experience; but, at the same time, many felt probably some regret that the Crown had not seen fit to nominate in Dr. Rumsey's place some provincial Physician or Surgeon instead of any London Practitioner, however eminent. The proceedings of the Council were fully reported in our pages at the time, and call for but very brief allusion here. The session was short—only six days—and there was unusual reticence and pertinence of speech shown. Dr. Parkes presented an important and very valuable report from the Committee on Professional Education. It noted important improvements made in the system of education and examination by the Royal College of Physicians of London, the Royal College of Surgeons of England, and the Society of Apothecaries, London, in requiring evidence of practical and clinical study, by the production of proof that each student had filled the offices of dresser and clinical clerk, and by submitting him to the test of practical examinations. It reported, also, that some of the Scottish and Irish bodies had instituted clinical and practical examinations. Some resolutions, founded on the report, were proposed by Dr. Parkes, and were carried in a permissive form—each beginning, that is, with the words, "It is desirable that" such and such a thing be done; and the Council justly and fully acknowledged the readiness and desire the licensing bodies had shown to adopt their suggestions. Considerable time was devoted to the subject of the formation of conjoint examining boards, and to the discussion of a resolution of Dr. Parkes's, proposing to call in the aid of Parliament to enforce their establishment next year if necessary. But the Council declined to suggest any threat of Government interference, and resolved, "That a meeting of the General Medical Council be held early in 1872, to receive the proposals of the bodies for conjoint examinations, and to consider whether any, and what, steps should be taken to carry out the resolutions of the Council in favour of combinations."

For more than two years we have had to bring the subject of the "Unification of Examinations" so repeatedly before our readers, and we have so often had to comment on schemes for the formation of an English Conjoint Examining Board, and to note rumours of the speedy establishment of such a Board, that everyone must be weary of the subject, and must almost despair of the desired object ever being attained. But it does now seem probable that a Conjoint Examining Board for England and Wales, though an imperfect one, will shortly be established. At the end of 1869 we noted that "most important steps had been taken towards effectively working out, and carrying into practice, the popular idea of one Conjoint Examining Board" for England and Wales. The College of Physicians had appointed a Committee to confer with the Universities and Corporations on the subject, and had prepared a scheme for the composition and regulation of the proposed Board. For a while things looked promising, but before long irreconcilable differences of opinion arose between the College of Physicians and the Society of Apothecaries, and the scheme was dropped; the main cause of its failure being, we believe, the determined refusal by the Committee of the College of Physicians to allow the Society of Apothecaries any share whatever in the appointment of Examiners in Medicine on the new Board. But towards the end of last year the subject was again taken up—the Colleges of Physicians and Surgeons invited the Society of Apothecaries to co-operate with them in concerting "a scheme for the constitution and regulation of a Conjoint Examining Board," and we were able to state that it was believed that "the former difference of opinion between the College of Physicians and the Society had been smoothed away, and there was good ground for expecting that a Conjoint Board would be formed," and that the first meeting of the Committees of the Colleges and of a deputation from the Society of Apothecaries was to take place in the first week of the present year. At that meeting it was unanimously resolved that a Board of Examiners for England and Wales should be appointed by the three Corporations; and a Sub-committee, composed of three representatives from each Corporation, together with the Registrar of the Royal College of Physicians, the Secretary of the Royal College of Surgeons, and the Clerk to the Society of Apothecaries, as assessors, was appointed to draw up a scheme for carrying out the resolution. This Sub-committee worked harmoniously and well, so that early in February a scheme to be submitted to the governing bodies of the three Corporations was agreed on. The Board was to be a conjoint one, the Examiners being appointed by the three Corporations; the Apothecaries' Society sharing with the College of Physicians the nominations of Examiners in Medicine, in Chemistry, Materia Medica, and Botany, and in Forensic Medicine, and with both the Colleges in nominating Examiners in Midwifery; the two Colleges were to nominate Examiners in Anatomy and Physiology; and the College of Surgeons the Examiners in Surgery. Successful candidates were to be entitled to the licence of the Royal College of Physicians, the Membership of the Royal College of Surgeons, and the licence of the Society of Apothecaries, or to any one or two of these diplomas, without other fee or examination, upon undertaking to comply with the by-laws of the respective Corporations. The fee was to be thirty guineas, the exact mode of the division of which was not quite settled, but the Royal College of Surgeons was to receive enough to support its library and the Hunterian Museum. The question of the co-operation of the Universities was left for further consideration. A few days afterwards, on February 20, the scheme was considered by the Fellows of the Royal College of Physicians, and, after considerable discussion, received the full assent of the College. Very shortly after, it came before the Council of the Royal College of Surgeons, and they, by a majority of one, determined to send it back to the Committee for reconsideration, because the scheme practically did not prevent any of the Medical authorities in England from granting registrable diplomas to persons who had not passed the Conjoint Board, which it could not legally do; and because the co-operation of the Universities, in the appointment of examiners or assessors, had not been invited. The Council, however, at their next meeting, refused to confirm this resolution, and afterwards, sitting as a Committee on the scheme, passed a series of resolutions, which, though unpractical or harmless, or weakened by the fact that each was made suggestive only by

the preface "It is desirable," still contained possible elements of discord and mischief. The last and most dangerous of them ran thus: "It is desirable that each of the Examiners in Medicine, Surgery, and Midwifery shall be a graduate in Medicine or Surgery of a British University, holding the highest degree in Medicine or Surgery of his University, or a Fellow or Member of one of the Royal Colleges of Physicians, or a Fellow of the Royal College of Surgeons of the United Kingdom; or that he shall be, or shall have been, a recognised teacher in the subject in which he is appointed to examine." There could be no ground or reason for doubting that the Medical authorities would, for their own credit, appoint the very best men they could obtain, and an attempt thus to limit their choice seemed not a little likely to excite resentment and opposition.

The next step towards the formation of a Conjoint Board was that the Committee of the Council of the College of Surgeons drafted a new scheme, to be submitted to the Committees of the Royal College of Physicians and the Apothecaries' Society. It proposed the representation of the Universities on the Conjoint Board by assessors or examiners, on condition that the Universities should not grant degrees admitting to the Register any who had not passed the Conjoint Board; and it suggested such a pecuniary arrangement as would secure to the College a sufficient income to maintain properly the Hunterian Museum and the College library. All this took us to the beginning of April; then came a pause, during which we had no news about Conjoint Board schemes; but the middle of May brought us a new scheme from the Royal College of Physicians. We cannot, and need not, describe it here—a sketch of its provisions may be read at page 576 of our first volume for the year—but, among other things, it proposed the appointment of a board of examiners by the co-operation of the Universities and Corporations, "it being understood that, liberty being left to the Universities and other licensing bodies to confer, as they may think proper, their honorary distinctions and degrees, each co-operating body will abstain from the exercise of its previous independent privilege of giving admission to the Medical Register"; and it proposed that a "Committee of Examinations" should be appointed by the Universities and the Corporations, which Committee "should determine the number of examiners to be assigned to each subject of examination, should nominate such examiners for appointment by the several Universities and licensing bodies, regulate and superintend all other matters relating to the examinations, and transact such business as might be referred to them by the Universities and licensing bodies, and should report periodically their proceedings"; it proposed, moreover, that there should be two or three Professional examinations for the diploma, and that University graduates in Medicine should be required to pass the final examination only. The scheme seemed a somewhat complex one; it proposed to give the Universities a degree of representation in the Committee of Examinations much out of proportion to their influence over the Profession, and that Committee itself seemed likely to prove a dangerous body unless its action should be so fully and accurately defined as to prevent any risks of its coming into collision with any of the licensing bodies; still, on the whole, the scheme looked a fair one. The Conjoint Board Committee of the Corporations held several meetings to consider it. Before long a rumour was heard of legal difficulties having arisen, and early in July we had to report that the two Colleges had all but agreed on a scheme for the formation of a Conjoint Board, the basis of which was to vest the nomination of examiners in a committee appointed by the four Universities and the two Colleges; but that there seemed to be legal questions relating to the Act of 1815 which stood in the way of the Society of Apothecaries, and that these questions were under the consideration of counsel. A description of this scheme was given to the General Medical Council during their session, and will be found at pages 64, 72, and 79 of our second volume. It has been frequently brought before the governing bodies of the two Colleges and the Universities, and, after being very carefully considered and discussed, has been finally accepted by all those authorities; and it is now under consideration by the standing counsel of the Colleges, in order to make sure that their charters present no legal difficulties to its being practically carried into effect. The solicitors of the Colleges, we believe, do not anticipate that any such difficulties will be discovered; so that we may expect soon to hear that the Conjoint Board is actually in process of formation.

We need not point out that at the best it will be an imperfect and not very satisfactory Board, for the Society of Apothecaries has not found itself able to join in it; and so long as the Act of 1815 continues in force, and conducts its examinations to the satisfaction of the General Medical Council, the Court of Examiners of the Society must hold their weekly meetings, candidates for the Society's licences will present themselves, and cannot, we imagine, be refused, for examination by any of the British Colleges of Surgeons, and their licences will be registrable. We cannot but think that the position of the Society of Apothecaries is very greatly to be regretted. Ever since they, in 1815, undertook the examination and education of the general Practitioners, on the refusal of the Royal College of Physicians to do it, they have performed their work honourably and well, and have ever been foremost in raising the status and education of the Medical Practitioner, and in meeting the wishes and requirements of the General Medical Council. We venture to think that the reasons which have finally prevented the Society from taking part in the formation of the English Conjoint Examining Board should be made known, and further, that if they are solid and good, and really depend on the construction of the Act of 1815, means should as speedily as possible be taken to procure the alteration of that Act.

We need not say much more about the proceedings of the two Royal Colleges during the year. We are glad to record that the College of Physicians has taken measures to increase the value and usefulness of its library as regards recent Medical literature, and has extended to its Licentiates the use of the library and the reading-room, which latter has been redecorated and, in great part, newly furnished. The daily papers, with quarterly, monthly, and other periodicals, are supplied; and a large number of carefully chosen recent works on Medicine, Surgery, midwifery, and the collateral sciences are placed on the tables, and are changed every three months, or more often, as the Library Committee may think desirable.

The annual election of Fellows into the Council of the College of Surgeons took place on July 6, when there were four vacancies to be filled up, from the retirement, according to the charter, of Messrs. E. Cock, George Busk, and F. Le Gros Clark, who offered themselves for re-election, and of Mr. Lane, who declined being nominated. The other candidates were Messrs. Spencer Wells, G. Critchett, and Barnard Holt; and the choice of the Fellows fell on Messrs. Spencer Wells, Critchett, Le Gros Clark, and Busk. Mr. Cock has just lately retired from the Court of Examiners, of which he had long been a deservedly popular member. Sir William Fergusson, while President of the College, proposed the formation of a museum of surgical instruments and appliances, in connexion with the Hunterian Museum, and his circular letter on the subject will be found at page 52 of our first volume for this year. The idea is a very good and valuable one, and it is to be hoped that the museum will prove a success.

The British Medical Association held its fortieth annual meeting at Plymouth, early in August. The business of the meeting was opened by the presentation of an address of hearty welcome from the Corporation of Plymouth, which was highly appreciated, the President remarking that it was

the first time such an honour had been paid to the Association by any town which had been visited by it. At Newcastle, indeed, the Corporation had welcomed the Association, but not presented it with any address! Perhaps this mode of opening the meeting had something to do, combined with the fine weather, with the spirit of play, rather than work, which more than usually marked the whole period of the meeting. If the precedent is followed, the growing greatness and grandeur of the Association must be more fully shown by its title; the receiving of addresses is one of the marks of a Royal progress, and we may live to record the proceedings of the Royal British Medical Association. The President-elect took for the subject of his address the "History of Plymouth," of which he gave an interesting and comprehensive, though necessarily brief, sketch. The address in Surgery was delivered by Mr. Lister, and was, of course, on his antiseptic system of treatment as applied in Surgery. Dr. George Johnson gave the address in Medicine, choosing for his subject, "Nature and Art in the Cure of Disease." The out-of-doors attractions were so great that the Sections were, we believe, rather thinly attended, but in all of them some good and interesting papers were read, and interesting discussions excited. The report of the Council excited a rather stormy discussion. It stated that the Council had, after an inquiry by a Committee, arrived at the conclusion that there were grave defects in the organisation of the Association, and that the accounts showed a deficit; and they recommended that for the future the General Secretary should be resident in London, and give personal attention to, and be responsible for, the finance and management of the *Journal*. The discussion was warm, but eventually the report was adopted, and its recommendations *in re* Secretary have been carried into effect.

The forty-first annual meeting of the British Association for the Advancement of Science was held in Edinburgh. The opening address of the President—Sir W. Thomson, F.R.S.—was an able production, and dealt with many and various subjects: physical laboratories and observatories, terrestrial magnetism, spectrum analysis, the nature of comets, *cum multis aliis*—but the part which excited most attention, and, may we venture to add, most astonishment, was, as doubtless our readers will remember, that having reference to the origin of life on our planet. The theory propounded being, that when a life-bearing world gets smashed up, by a collision or in some other way, many great and small fragments, carrying seed and living plants and animals, are scattered through space; that it is in the highest degree probable that there are countless seed-bearing meteoric stones moving about through space; that if one such fell on a world hitherto barren, but ready to bear, such world might gradually become clothed with vegetation; and from vegetation all things else might be evolved. And we all know what great events from little causes spring! Many able and interesting papers were read in the sectional meetings from members of our Profession—one of the most valuable and important, perhaps, being "On the Morbid Appearances noticed in the Brains of the Insane," by Dr. J. Batty Tuke and Professor Rutherford. Dr. Carpenter, F.R.S., was elected President of the next meeting, which is to be held at Brighton.

The Social Science Association held its congress in Leeds, and this year the meeting was particularly remarkable for the number of eminent sanitarians who attended in the department of Public Health, and the excellence of the papers read there. Mr. G. W. Hastings, in his inaugural address, delivered to the whole congress, advocated making the country, rather than the parish, the unit of sanitary administration, contending that in such a way only could we obtain the services of persons of sufficient attainments or position for the proper and intelligent discharge of their duties, or to fit them to deal on terms of mutual respect with a central authority.

Nothing special has to be recorded concerning the various Medical Societies of the metropolis as to their work. The space given in our columns to their proceedings is proof enough of their activity, and it is sufficient here to say that they continue to flourish and do good work. The Medical and Chirurgical Society have "restored" their library, making some improvements and re-arrangements so as to add to its book space and convenience; and a new room, to be used as a reading room, has been added, at the back of the library. The wet weather has so retarded the work of painting and decorating that the new room is not yet fit for use.

The changes in the *personnel* of the Metropolitan Hospitals and Schools were, as usual, noticed in our Students' Number; they have been very numerous and important, and some additional changes have occurred since. Thus, at Charing-cross Hospital Dr. Alexander Silver has become full Physician, succeeding to the vacancy created by the lamented death of Dr. Hyde Salter. At Middlesex Hospital Dr. Greenhow became Physician in place of Dr. Murchison; Mr. Andrew Clark has been appointed Assistant-Surgeon in place of Mr. H. Arnott; and Dr. J. C. Thorowgood lectures on Materia Medica, *vice* Dr. Brunton, resigned. Dr. Cayley has succeeded Dr. John Harley as Physician to the London Fever Hospital. Mr. H. G. Howse has been appointed Surgeon to the Evelina Hospital, *vice* Mr. Alfred Willett, resigned. Mr. J. Astley Bloxam has been made Surgeon to the Great Northern Hospital, *vice* Mr. Buxton Shillitoe, resigned.

The new St. Thomas's Hospital was formally opened by her Majesty on June 21, but patients were not admitted for some weeks afterwards, and we do not know how many available beds the Hospital is considered to number at the present time. The new building cost about half a million sterling, but the treasurer was obliged to appeal to the charitable public for £22,000 to furnish it and make it of any practical use. We do not pretend here to pass any judgment on the cost of the building, or on its excellencies or defects; but certainly numerous complaints have been heard of extravagance of outlay, and of woful deficiencies, defects, and inconveniences of construction and arrangement. The first session of the Medical School in its new buildings was opened by an eloquent and highly interesting address from Mr. Le Gros Clark.

The "Hampstead Hospital Scandal" must be so fresh in the memories of our readers that we need only allude to it. A great amount of public feeling and indignation was excited by various very serious charges brought against the management of the Hospital by three gentlemen who had been Assistant Medical Officers to it, and the Local Government Board very properly ordered a public investigation into the subject by two Special Commissioners, Mr. Henley and Dr. George Buchanan. The charges were brought by the three Medical Officers in a letter published in the *Times;* and the official inquiry was demanded by the Hospital authorities. The inquiry lasted thirty-two days, and an immense amount of conflicting evidence was laid before the Commissioners, whose report thereon has not yet been made public, though it has, we believe, been sent in to the Local Government Board. Whatever the conclusions of the Commissioners may be, two things were, we think, certainly proved—viz., that the existing machinery for meeting and dealing with great epidemics in the metropolis is wofully imperfect and unsatisfactory, and that the present system of Medical management of the Metropolitan Asylums Board's Hospitals, by Resident Medical Officers, without Visiting Physicians, is also unsatisfactory and inefficient.

We have had the pleasure of recording distinctions, honours, and rewards received by various members of the Profession. Dr. Hermann Beigel, who left London to serve his country during the Franco-Prussian war, was rewarded by the Emperor of Germany with the Iron Cross for his services in the field; Deputy Inspector-General Dr. C. H. Gordon, C.B., and Surgeon-Major Wyatt were made Officers, and Dr. Rose Cormack, Chevalier of the Legion of Honour, for their

Medical services during the siege of Paris; and the Société de Secours aux Blessés presented their Cross and Diploma to Sir W. Fergusson, Sir James Paget, and Mr. E. Hart. Mr. Mitchell Henry has entered Parliament as Member for Galway. Dr. Burrows has succeeded Sir James Alderson as President of the Royal College of Physicians; Dr. Parkes has been elected into the Senate of the University of London; and Drs. W. Budd and R. Quain, and Messrs. John Wood and G. W. Callender have received the distinction of the Fellowship of the Royal Society. The Companionship of the Bath has been conferred on Inspector-General of Hospitals J. Paynter, Inspector-General of Hospitals and Fleets Dr. C. A. Anderson, Deputy Inspectors-General of Hospitals R. J. O'Flaherty and Dr. W. C. Macbean, Deputy Inspectors-General of Hospitals and Fleets R. D. Mason and D. L. Morgan, and on Surgeon-Major John Bostock; while Dr. Alexander Armstrong, Director-General of the Medical Department of the Navy, and Dr. David Dumbreck, C.B., have been made Knights of the same distinguished and ancient Order. The whole Profession felt gratified when her Majesty acknowledged the eminence of Mr. Paget and Dr. Robert Christison by conferring on each the social distinction of a baronetcy. No men stand higher in the consideration and esteem of their brethren, or have done more to advance the science and art of Medicine. Dr. John Lowe, of Lynn, has been appointed Medical Attendant to the Prince of Wales's household at Sandringham, and has most amply justified, and indeed repaid the Prince for, his appointment by the devotion and skill he has shown during his Royal Highness's late dangerous illness. Dr. Ballard has been made one of the Medical Inspectors to the Local Government Board, and on retiring from the Medical Officership of Islington had the pleasure of receiving a well-merited testimonial to his very able, long, and indefatigable services from his Medical brethren in that parish. And several other of our brethren have also had the satisfaction of finding their labours publicly acknowledged by the presentation of testimonials and addresses; among them we may mention Mr. E. Cock, Dr. Cordy Burrows, and Professor Halford. The sum collected already towards the Syme testimonial will produce £100 a year; and no doubt the fund which is being collected for commemorating in some permanent way Sir James Paget's valuable services to the School and Hospital of St. Bartholomew, will result in something alike worthy of him and of those interested in the movement.

Death has, as usual, been very busy in our ranks, and we have had to lament the loss of not a few at an age when we might justly have looked for many years more of good and eminent service from them, and they might have expected to be allowed to reap much more fully and for long the reward of their devotion and labour in the work of their Profession. Of such we would here specially mention, with sincere regret, Dr. Hyde Salter, who died at the age of 47; Dr. T. Hawkes Tanner, aged 46; Dr. R. Whitfield Hewlett, aged 32; Dr. James Fawcus (Deputy Inspector of Gaols, Bombay), who died at 38; Count Cyprian C. Wollowicz, M.D., at 31; and Mr. F. W. Richards, M.B., at 29. Many well-known and highly valued men have been taken from us at a later age, indeed, but while still in harness, and looking for many more years of usefulness and success, as Dr. J. Addington Symonds, who died at 63; Dr. J. S. Christian, at 57; Mr. Samuel Solly, at 65; Mr. Langston Parker, at 65; Dr. W. Daniel Moore, at 58; Dr. Charles Cowdell, at 56; Mr. H. S. Illingworth, at 62; Mr. R. Shipman, at 54; and Mr. J. T. Grantham, at 43. Many, happily, whose deaths we have had to record, and of whom we have given obituary notices, lived to a good old age, and some long beyond the three-score and ten years allotted to man by the Psalmist. Dr. R. Filkin had reached the age of 95; Mr. J. Frowd Spencer was 89; Deputy-Inspector of Hospitals Dr. R. Dunn, Mr. Cornelius Butler, Dr. G. F. D. Evans (Shrewsbury), Sir James Murray, M.D., Dr. T. Mayo, Mr. John Packman, Dr. Waterfield, Dr. James Low Warren, Mr. Samuel Barton (Manchester), and Dr. James Watson (Glasgow) were all more than 80; and Dr. W. Callender Tidy, Sir John Fife, M.D., Dr. M. Nisbet (Cheltenham), Dr. Patrick Anderson, Dr. De Burgh Birch, Dr. J. D. Anderson (Glasgow), Dr. Charles Bloomfield, Dr. J. England (Ipswich), Dr. R. Dundas, Mr. John White, Mr. J. Lionel Beale, Dr. Cursham, Mr. John Savory, Dr. T. Evanson, Dr. Caleb Williams, Mr. Walter Cooper Dendy, and Mr. P. C. De la Garde were all over 70 years of age. While, on the other hand, we have had to mourn the loss of some who were just showing their talents and worth when struck down by diseases caught in the discharge of their duties, as Dr. Joseph Gedge, Chief Medical Officer to Sir S. Baker's White Nile Expedition, at 28; Mr. St. John Wells Lucas, House-Surgeon to the Windsor Royal Infirmary; Dr. Clements, of the Liverpool Workhouse Infirmary; Dr. Hewitt (Dublin), at 25, of typhus; Dr. O. S. Shaw, at 24; and Dr. H. Curran (Dublin), also of typhus; Dr. J. W. Irvine (Liverpool); and Dr. John Davidson, of Middlesex Hospital, of typhoid, at the age of 24.

We cannot leave this sad part of our yearly summary without again speaking of the great regret with which we recorded the death of Felix von Niemeyer. Though only 50 when he died, he had won a world-wide reputation, and stood foremost among the greatest clinical teachers in the German Schools of Medicine. Among ourselves he was held in very high esteem, and his works are widely studied and greatly valued. Among other well-known foreign Medical men of eminence whose death we have this year recorded, we may mention Professor Rossignol, of Brussels; M. Longet, of Paris; and Professor Fred. Holst, of Christiana.

We may now turn to notice shortly our own labours through the year, and the contents of the two volumes we have issued.

We have had the gratification of publishing the valuable "Lectures on Practical Physiology," delivered by Dr. Burdon-Sanderson in the Physiological Laboratory of University College, and Dr. T. Laycock's able and learned "Lectures on the Clinical Observation of Diseases of the Brain and Nervous System;" the admirable and interesting lectures of the Rev. S. Haughton, M.D., "On the Principle of Least Action in Nature, illustrated by Animal Mechanics;" Mr. C. Brooke's "Lectures on Force and Energy;" and Mr. R. Liebreich's "Clinical Lectures on Ophthalmology." We have continued to give Dr. B. W. Richardson's interesting and suggestive "Lectures on Experimental and Practical Medicine," and Dr. W. Moxon's able "Lectures on Analytical Pathology." We have been enabled to give Lectures "On Two Cases of Venereal Disease," and "On acute Abscess," by Mr. C. F. Maunder; on "Optic Neuritis from Intracranial Disease," by Dr. J. Hughlings-Jackson; and on "The Principles of the Treatment of Fever," by Dr. Lionel S. Beale; also, "Clinical Lectures" on "Orchitis from Irritation in the Prostatic Urethra," on "Periostitis of the Temporal Bone," and on "Fracture of the Patella," by Mr. Jonathan Hutchinson; on "Overstrain of the Heart," by Dr. Clifford Allbutt; on "Instances of Successful Treatment of Degenerative Disease of the Kidneys," by Dr. C. Handfield Jones; and on "The Uses and Application of Hodge's Lever Pessary," by Dr. R. Barnes; a "Clinical Review," by Mr. G. W. Callender; and the "Discussion on Purulent Infection at the Paris Academy of Medicine," by Professor Verneuil.

Under the head of "Original Communications" we have given papers on important and interesting subjects from many of the best-known workers and highest authorities of the day. Among these papers we may mention—"Notes on the Pathology of Malignant New Growths," by Mr. Henry Arnott; papers on "Shark-bites in the Hooghley," "Traumatic Aneurism from a Gunshot-wound," "Urethral Fever," "Pyocyanine," "Fatal Injury to the Perineum," and other subjects, by Professor J. Fayrer; on "A Case of Pemphigus,

contracted by Inoculation from an Eruption on the Teats of a Cow," by Dr. E. Ballard; on "Leucocytes and Sarcophytes," by Dr. C. J. B. Williams; on "Entozoa in relation to Public Health, and the Sewage Question," by Dr. Spencer Cobbold; on "The Varieties of Imperfect Speech produced by Brain Disease," and on "Drunkenness as Modified by Race," by Dr. R. Druitt; on "Clinical Observations on Rickets," by Dr. C. Currie Ritchie; on "The Variations in the Prevalence of Venereal Diseases in this Country," and on "Cholera in Ships at Sea," by Inspector-General Lawson; on "The Treatment of Epilepsy," by Mr. Walter Tyrrell; "Surgery in India," by Mr. A. S. G. Jayakar; "Country *v.* Town Milk," by Mr. John Gamgee; "A Case of Bronchocele," by Dr. Adolph Wahltuch; and on "Urethral Stricture," by Mr. J. D. Hill; "Notes on the Engadine," and on "The Batha of Bormeo," by the late Dr. Whitfield Hewlett; Dr. Kraus's "Contributions to the Pathology of the Prostate Gland;" and Mr. J. Sullivan's "Notes on the Yellow Fever as observed at the Havana in 1870," and on "Acute Rheumatism in the Tropics;" papers on "Operations for Vaginal Fistula," by Mr. Lawson Tait; on "Difficulties in the Diagnosis of Cerebral Hæmorrhage and Drunkenness," and on "The Routine Use of the Ophthalmoscope in Cases of Cerebral Disease," by Dr. Hughlings-Jackson; on "Functional Regurgitant Bruit," by Dr. A. Silver; on "The occurrence of Epileptic Attacks of Mania in conjunction with Chorea," by Dr. James Russell; on "Hedonism," "Cerebral and Ganglionic Disorders of Mentation," "Pregnant Sickness," and "The Convolutions of the Frontal Lobe of the Brain," by Mr. Metcalfe Johnson; on "Rheumatism," by Dr. James Ridge; on "Specific Ulcers of the Lower Extremities," by Mr. C. Holthouse; on "Hæmoptysis in Children," by Dr. Vald. Rasmussen; on "The Alice Hospital at Darmstadt," by Dr. C. Mayo; on "Cases of Acute Cerebral Disease," by Dr. W. H. Broadbent; on "The Spectrum Analysis of Bloodstains," by Mr. H. C. Sorby; on "The Several Forms of Phthisis Pulmonalis," by Dr. Douglas Powell; on "Phthisis as a Neurosis," by Dr. Clifford Allbutt; on "A Case of Contractile Phthisis, causing Remarkable Displacement of Organs," by Dr. C. Theodore Williams; and on "Lumbar Colotomy," by Mr. C. F. Maunder; a "Case of Progressive Muscular Atrophy," by C. B. Mesterton, of Upsala; papers on "Puerperal Fevers," by Professor Edward Martin, of Berlin; on "Epidemics of Small-Pox, Scarlet Fever, and Measles in Rotterdam," by Professor A. M. Ballot; on "Extensive Softening of the Brain from Syphilitic Disease," "Sudden Death from Acute Inflammation of the Aorta," and a "Case of Cerebral Rheumatism treated by the Cold Bath," by Dr. Moxon; on a "Case of Myelitis," by Dr. R. W. Tibbets; and on "The Treatment of Pyrexia by a Cooling Pad," by Dr. W. Roberts; besides valuable communications, for which we have to thank Dr. A. E. Sansom, Mr. C. A. Fox, Dr. Jabez Hogg, Mr. J. G. Trench, Dr. T. S. Dowse, Mr. W. N. Hiron, Assistant-Surgeon F. H. Welch, Dr. F. Porter Smith, Assistant-Surgeon G. Waters, Dr. J. Imray, Dr. J. Ward Cousins, Dr. J. Wickham Legg, Mr. Edward Milligen, Surgeon Partridge (of Bombay), Dr. Archer Farr, and other able and valued contributors.

In our "Hospital Reports" we have supplied short but practically ample notes of striking and interesting cases, and such as illustrated the most approved and most novel methods of Medical and Surgical treatment in the metropolitan and provincial Hospitals; and, so far as we were able to spare the necessary space, we have given short reviews and notices of all the best and most important new works, English and foreign, and have recorded the proceedings of the various Medical societies, as showing the progress that is being made in the different departments of Medical science. Our "Topics of the Day" have regularly supplied an instructive and admirable *résumé* of the most talked-of and the most important events of each week, and have, we suspect, been the part of the journal first looked at by most of our readers. Our pages have also contained abstracts of the lectures delivered at the Royal College of Physicians by Drs. Gee, E. A. Parkes, Guy, and Acland; the Hunterian Oration of Sir William Fergusson; and the Annual Oration delivered to the Medical Society of London, by Dr. Cholmeley; and notices of Dr. Acland's lectures on "Hospitals and Hygiene" to the working-classes; and our "Notes" from at home and abroad have supplied information and "light reading" of an instructive and pleasant kind.

In our Editorial Articles we have criticised, advised, warned, or encouraged whenever the honour and interests of the Profession seemed to call for special comment; and we have also noticed or criticised many of the most prominent theories or vagaries of the day. Thus we have published articles on "Progress! Free Thought! Untrammelled Lives for Women!" on "Female Physic," on "The Medical Education of Women," and on "The Edinburgh Female Medical Students; on "Milk, Town and Country;" on "The Poor-Law Medical Officers, as Assistant-Medical Officers of Health;" on "Army Reorganisation, and the British and Indian Medical Services;" on "State Interference in Medicine;" on "Sanitary Organisation;" and on "The Medical Supervision of Asylums;" on "Unprofessional Advertising;" on "Dr. Mazzoni's Visit to London: Veluti in Speculo;" on "Very Popular Science," "Nec semper Arcum tendit Apollo," and "Confusion Scientific;" on "The Teaching of Psychology in our Schools of Medicine," on "Practical Physiology," on "The General Medical Council," and on "Scientific Work—Pure and Professional;" on "The Future Life of the Medical Student," on "Over-Education or Under-Education—Which?" on "Professor Huxley on Medical Education," on "National Degeneracy," on "The Value of Extract of Meat," on "The Process of Inflammation," "Pus and Pus-Corpuscles," and on "Dr. Burdon-Sanderson on Microzymes." We have traced and commented on the Progress of the Small-pox Epidemic and the Cholera. We have given articles on "Spiritualism," and on "A New Force, popularly so-called; on "Vaccination and Syphilis," on "The Reports of the Royal Commissions," on "The Questions and Theories concerning Town Sewage," on "Coprologia, or Typhoid in its Home," on "The Hampstead Hospital Inquiry," on "The Method of dealing with Intemperance," and on "Sick Transport and Volunteer Aid in War," and "Parisiana."

Our pages have further contained many valuable and highly interesting papers or notices which cannot well be classed under any of the subjects already spoken of. Thus the Franco-Prussian war, and the great events in and around Paris, have supplied us with many articles, as "The History of the First French Volunteer Ambulance," Dr. Cormack's papers on the "Siege of Paris," "The Autumn Tour of a Dresser in 1870," Baron Munday's "Report on the Ambulance de l'Ancien Corps Legislatif," "Work done under the Red Cross," "The French and the Red-Cross Societies" and the Visit of Drs. Ricord and Demarquay to London, "The English Hospital at Metz," and "Physiological Notes from Paris." We have had the pleasure of continuing Mr. J. F. Clarke's "Autobiographical Recollections of the Profession," and of giving some "Reminiscences of an Old Guy's Man." We have published papers on "Direct Representation;" on "Chloral Hydrate," by Dr. B. W. Richardson; on "The Influence of Moisture in the Propagation of Erysipelas;" on "Legislative Measures for preventing Adulteration of Food, Drink, and Drugs," by Dr. Letheby; on "The Sanitary Commission of the Punjaub," on "The Contagious Diseases Act in India," on Fibrinous Coagula in the Right Side of the Heart in connexion with Malaria," on "Scotch Morality," on "The Application of Electricity to Medicine," on "The Effects of Changes of Climate on the Human Body," on "Wünderlich's Medical Thermometry," on "The Physiology of Mind in the Lower Animals," on "The Effects of Compressed Air on the Human

Body," on "Ben Rhydding," on "The Broadmoor Criminal Lunatic Asylum," "The Legal Liability of Persons under Age for necessary Medical Attendance," "The Vaccination Act," "Spurious Tea," and on "The Latest View regarding the Red Blood-Corpuscle." We have noticed Mr. Campbell De Morgan's Address to the Medical Teachers' Association, Dr. Carpenter's lecture on "Deep-sea Explorations in the Mediterranean;" have given "A Summary of Experiments on the Influence of Snake-Poisons," by Dr. J. Fayrer; and Dr. F. A. Hartsen's papers on "Darwinism and Aristocracy, in connexion with some other Questions," and on "Darwinism and Politics," and Professor Steiner's (of Prague) "Clinical Experiences of Chorea."

Altogether, on looking over our volumes for the year, and weighing the results of our labours, we think we are fully justified in feeling assured that, thanks to all who have so ably and heartily helped us, the *Medical Times and Gazette* has continued to merit and repay the favour and consideration which the Profession have so long and so fully given it. And most gratefully acknowledging the confidence placed in us, we heartily wish all our brethren, at home and abroad, a happy, successful, and peaceful New Year.

THE WEEK.

TOPICS OF THE DAY.

Murmurs have been heard in various quarters against the Medical Declaration on the subject of alcohol, whereon we remarked last week. Whilst sympathising entirely with the wish of those who would reduce the consumption of alcoholic drinks in England, we confess that we are not in the least surprised that "the Medical manifesto" has aroused opposition. A loosely worded document, implying a charge little short of criminal—(If carelessness in dealing with the issues of physical and mental life and health be not criminal, what is?)—against the Medical Profession as a whole, and endorsed by many names of eminent Medical men—although some eminent names are distinguished by their absence from the list of signataries—was certain to arouse indignant questioning. One of the most eminent of the remonstrants is Mr. Skey, who wrote to the *Times*, on Tuesday last, a letter, of which the following is an extract:—

"With every inclination to admit the surpassing importance of the subject, I will venture to express my strong impression that had the 'Declaration' been carefully and critically read by all of these gentlemen the list of signatures would have been somewhat abridged.

"May I trespass on your columns by stating as briefly as I can write them my reasons for declining to sign my name to the 'Declaration,' which was sent to me by the President of the Royal College of Physicians for that purpose:—

"1. Who of us has a right to charge any members of our Profession with inconsiderately prescribing for their patients? I object to the 'Declaration' because it is dictatorial, assailing the deliberate judgment of a large body of eminent members of the Profession.

"2. Because the facts on which it is based are very questionable. I have not myself witnessed these 'many instances' referred to of 'intemperate habits engendered by the Medical administration of alcohol,' and I don't believe them.

"3. Because I believe the first two paragraphs will prove inoperative to any useful purpose, so far as alcoholic stimulants are prescribed on principle, and not wantonly ordered to gratify inclination. This alone could justify the term employed in the 'Declaration,' of 'inconsiderately prescribing.'

"May I add one word more? In the month of August last I addressed a letter to the President of the Royal College of Physicians, urging on his attention the desirableness of giving to the Government the sanction and support of our Profession, with a view to check the immoderate and most injurious consumption of alcoholic and intoxicating drinks by the working community of England. Unfortunately, a severe and protracted illness drove the subject from my thoughts, and Dr. Burrows is in possession of my letter only a fortnight ago.

"I shall feel obliged if you will do me the favour to publish this letter. "I am, Sir, your very obedient servant,

"24, Mount-street, Dec. 25. "F. C. Skey.

"P.S. It will be inferred that my objections lie only with the first two paragraphs of the 'Declaration.' With the third I am in entire unison, and I will gladly co-operate in any proposal to carry its object into effect."

In answer to Mr. Skey, Dr. Risdon Bennett has addressed the editor of the same paper in defence of the manifesto. He writes:—

"In his letter to the *Times* of this morning, Mr. Skey, in stating his reasons for not signing the 'Medical Declaration respecting Alcohol,' appears to think that those who have done so have unwarrantably charged 'members of our Profession with inconsiderately prescribing for their patients,' and have in a dictatorial spirit assailed 'the deliberate judgment of a large body of eminent members of our Profession.'

"Will you allow me, Sir, as one of the signataries of the declaration in question, and as one who happens to hold a responsible office, which demands the maintenance of the nicest sense of Professional honour and courtesy, to repudiate the imputation which Mr. Skey has cast on those who, like myself, have signed the declaration?

"It is a fact that a widespread belief exists among the more ardent supporters of the temperance movement, whether that belief be well founded or not, that an inconsiderate prescribing of alcohol by the Medical Profession is one of the causes of our crying national disgrace—intemperance. If this be so, it surely behoves the leading members of our Profession, while allowing that they cannot abandon the use of alcohol as a remedial agent, to inculcate habits of caution in prescribing it, whether for strictly remedial or dietetic purposes. This, I believe, is all that was intended to be implied in the two paragraphs to which Mr. Skey objects, and I do not think that any who have signed the document are fairly open to Mr. Skey's censure, while they will, I trust, strengthen the hands of the Government in any efforts they may make to diminish the fearful moral and physical evils of intemperance—evils the magnitude of which no class is more painfully cognizant of or more anxious to suppress than the Medical Profession.

"I have the honour to be, Sir, your obedient servant,

"James Risdon Bennett, M.D.,

"Senior Censor of the Royal College of Physicians.

"Royal College of Physicians, London, S.W., Dec. 26."

We have already expressed our opinion of the ill-advised character of the manifesto, an opinion which Dr. Risdon Bennett's letter certainly does not remove. Qualified Practitioners of Medicine assuredly do not require to be lectured in the public prints upon the modes of practice they are to pursue, even by "leading members of our Profession."

PRESCRIBING DRUGGISTS.—INQUESTS AND THE RATEPAYERS.

It would appear that a new element has been introduced with respect to the necessity of doing away with drug-sellers prescribing for sickness. According to the report of a late inquest in Bethnal-green, the Deputy-Coroner shrewdly illustrated the cost of ignorant and unqualified Practitioners, not only in regard to life and health, but also with reference to the pockets of the ratepayers. At an inquest held last week, before Mr. Richards, the Deputy-Coroner for Eastern Middlesex, it was shown that a boy aged three years was taken to a "Medical Hall," that he was treated for "hooping-cough," and medicine given him for the cure of that complaint. The day after, however, he was suddenly seized with a "fit of choking," and died in ten minutes. The Medical gentleman who was called in (Dr. Bryant) said that the deceased was a fine healthy boy, and if proper Medical attendance had been forthcoming, he had no doubt, would have been alive now. There was not, in fact, any sign whatever of hooping-cough. Deceased died from croup. The Coroner, in his observations upon the case, made some very sensible remarks. He said:—"The extent to which druggists infringe the provisions of the Medical Act is sometimes frightful, having regard to the fact that the lives of many persons are annually sacrificed through the ignorance of these unqualified Medical Practitioners. The consequence is that, at the last moment, a real

Doctor is called in, and he refuses to certify the result before a coroner's inquiry and the waste of the county money. The want of a public prosecutor is here most manifest; but until this crying evil becomes thoroughly exposed through the medium of the public press, we may look in vain for any proper measures being taken to check the frauds which are daily perpetrated upon the true Medical Profession by men who know as much of the human anatomy as my inkstand." The Coroner's words were fully endorsed by the jury, and a verdict in accordance with the Medical evidence was recorded. We commend the sensible observations of Mr. Richards to all coroners, not one of whom throughout the country has not, unfortunately, experience of cases similar to the one recorded.

ARMY HOSPITAL CORPS.

A COMMITTEE is now considering the new Royal Warrant for the re-organisation of the Army Hospital Corps. The chief feature in the Warrant will be the abolition of the permanent Hospital establishment of the regiments, and the transfer of the men to the corps. If this Warrant gets the signature of the Queen, every regiment in the service will have men attached to it from the Army Hospital Corps, and the regimental Hospitals to a certain degree will become staff Hospitals. Medically, the advantages will no doubt be considerable.

BREACHES OF THE MEDICAL ACT.

CASES of breaches of the letter and spirit of the Medical Act are as "plenty as blackberries." Every case that comes before a legal tribunal shows that the measure, as it at present stands, is most faulty and incomplete, and makes us almost echo the words of O'Connell, that one could "drive a coach-and-six" through it. The last illustration of the powers of the Act would appear to show that it had really some influence over offenders, but inasmuch as "a case" was granted, it has yet to be decided whether the decision of the magistrates at Shrewsbury will be maintained. We confess, looking at the preceding cases, we are not sanguine that it will. The facts referred to are as follows:—Mr. Thomas Andrews was charged last week before the magistrates of Shrewsbury with an infringement of the Medical Act, by falsely assuming the title of "M.D." It was proved that the defendant had for some years been a druggist in the town, and had recently sent out a bill for Professional attendance, had attached "M.D." to his name, and had "M.D." painted on a lamp in front of his door. For the defence, it was shown that the defendant had received a diploma from the "University of Pennsylvania," and Mr. Motteram, a barrister, who appeared for the defence, contended that, even if the College had no power to grant the diploma, if defendant believed that it had the charge must fall to the ground, and he cited cases in support of this view. Mr. George Lever was called into the witness-box, to swear to the authenticity of the diploma, which he did. On being asked to read it—it was in Latin—the witness declined to do so, and subsequently said that the knowledge of Greek and Latin was looked upon as a secondary consideration in the Medical University alluded to. He visited the University, and attended lectures; but he believed diplomas, after an examination by a duly authorised board in this country, were granted. He had no idea, however, what the nature of the examination was. The Bench fined the defendant £20, but granted, on the application of Mr. Motteram, a case for the superior court.

SMALL-POX JOTTINGS.

Two new cases of small-pox were reported in Islington last week, as against three in the previous week. There had been two deaths from this disease, as against one in the week before.——Small-pox continues prevalent in the neighbourhood of Holywell, and in a report made by the Medical Officer to the local authorities, attention was called to a distressing case at Bagillt, where four of a family slept in the same bed; the father lying all covered with the disease, his wife, son and daughter sleeping with him. The father died, the children sickened, and the mother, who attended upon them, slept on the bare floor in the same room.——The report of the Homerton Asylum last week showed that in the fever side there had been in the fortnight forty-four admissions. In the small-pox Hospital the type of the disease had not improved. During the fortnight there had been seventy-two admissions.——At Stockwell, during the previous thirteen days, there had been seventy-nine fresh cases, and there were only seven vacant beds. The total number admitted to this Hospital had been 2084.——At Hampstead Hospital, during the previous twelve days, 160 fresh cases had been received, leaving 298 under treatment. During the previous twelve days, forty convalescents had been received from Stockwell, making an apparent increase in the Hampstead Hospital district returns. The detailed report showed that during the year 4984 vaccinated persons, and 1170 unvaccinated, in all 6154, had been treated in the Hospital.——Small-pox continues to spread alarmingly at Birmingham. All the beds set aside at the Queen's Hospital for small-pox patients are full, and within two or three hundred yards of the Hospital there are between forty and fifty persons suffering from the disease. In all parts of the town but at Spring-hill and in the immediate neighbourhood it is spreading rapidly.——At Norwich, the last week's returns showed a total of thirty-five cases, as against twenty-one in the previous week, of small-pox. The Marchioness of Lothian has presented an iron small-pox Hospital to the town.——Dr. Lankester reports from St. James's, Westminster, that there are still some cases of small-pox in the parish, and during the year there had been 232 cases of small-pox and thirty-three deaths. ——Five deaths are reported last week from small-pox in Poplar, and thirteen new cases. In the week thirty persons were vaccinated at the public stations. There were fourteen small-pox patients under treatment in the North-street Infirmary, Poplar.——Dr. Dudfield reports two deaths from small-pox last week at Kensington, and there were also two fresh cases in the workhouse reported by the Vaccination Officer. ——Mr. C. F. J. Lord, Medical Officer of Health for Hampstead, in his annual report, just printed, says:—"After excluding such new population as come into the parish through the Small-pox Hospital, St. Peter's Home, and the North London Consumption Hospital, 'hard hit by death,' the mortality has little exceeded fourteen per 1000. Cases of infanticide, or 'dropped children,' and accidents by drowning—though these are only a dozen—have been also excluded from the calculation. So low a death-rate is momentous when viewed by the side of the idle outcry of danger to the health of Hampstead through the Small-pox Hospital and through the unfounded alarm of the parish losing its high standing as the *mons salutis* of the metropolis."—— Small-pox had diminished in Hackney to ten during the fortnight ending on Saturday last, against fourteen in the preceding fortnight, but there had been a far larger mortality in the Small-pox Hospitals, amongst the patients from other districts, than usual.——Dr. Aldis, St. George's, Hanover-square, reports one case of small-pox (vaccinated) in the in-wards, and the death of a woman, aged 38 (vaccinated), in the out-wards, for the week ending December 23.

SMALL-POX AND REVACCINATION IN DUBLIN.

DUBLIN is suffering from small-pox, which, in some cases, has already assumed the same severity of type that has characterised the present epidemic in its march through many parts of England, of continental Europe, as well as of Asia, etc. A period of actual exemption from small-pox, brief though it was, deceived some of our countrymen on this side of the water, leading them, unfortunately, to think they had become in their island home protected, under all circumstances, from

the loathsome and oftentimes fatal malady now in our midst Certain Professional men in Dublin even still look on revaccination with but slight favour, wilfully shutting their eyes to what has been passing around them in the world at large; consequently, so far as the influence of these gentlemen has extended, the public have not adopted the valuable protection afforded by revaccination. One of the journals in this city has in at least one issue of its columns, as we have heard, taken up the cause of the anti-vaccinators so far as to endeavour to decry revaccination.

THE PROPOSED CONJOINT MEDICAL EXAMINATION BOARD IN IRELAND.

THE formation of an Irish Medical Examining Board has attracted a good deal of attention of late in Dublin. Several meetings of the deputed members of the several licensing bodies have recently taken place, and it may be said that the general tone of feeling was favourable, and promises that the movement is likely to become popular, and to end in the formation of one portal for entrance to the Profession in this country. Where many interests are involved, it necessarily happens that a considerable diversity of opinion on different points may exist. It appears to be generally understood that no exception will be taken to the participation in the examining body by all the present Licensing Corporations and Universities in Ireland. This is as it should be, and bids fair to insure a thoroughly fair and practical examination for the future candidates. It is, however, unfortunate that some difficulty threatened from an effort on the part of the Universities to exempt their men from undergoing the three earlier examinations, as they demanded that such candidates for practice should be only required to pass the final or fourth examination. For ourselves, we shall not, we trust, be considered as desiring to underrate the value of a University course of education, for we most highly approve of it. At the same time, we think that the other examining bodies should hesitate before allowing University students the sole right to be exempted from the first three examinations, as we consider that such a measure would in some degree, at least, frustrate the object of a Conjoint Board; which, if constituted, as now agreed upon here, of practical and able Examiners in Physic, Surgery, Midwifery, and Pharmacy, as well as in all the elementary branches of the science of Medicine, would insure a very competent and impartial tribunal, whose decisions would justly command the approval and respect of all persons competent to judge of such an important matter.

PROFESSOR HUXLEY AT THE LONDON INSTITUTION.—SEVENTH AND EIGHTH LECTURES.—CONCLUSION.

PROFESSOR HUXLEY commenced his seventh lecture by referring to the localisation of psychoses. By an active operation of the mind the amount and definiteness of localisation vary in the different senses, being *general* in smell, taste, and hearing, but *definite* in touch, pain, and warmth. He then gave a sketch of the secondary psychoses derived from the various sensations. Thus, from smell we can form the idea of *succession* and *similarity*, but not of *contemporaneity*; co-existent smells at least cannot be referred to distinct places. The ideas of *co-existence and locality* from taste, pain, and touch are very definite. From touch are also derived new ideas not to be obtained from the other two sensations above named—namely, *distance, form, and motion*. Two points of the skin touched at the same time will originate the idea of distance; if three or four points be touched we become aware of the idea of form; and if we were deprived of all the other senses, a succession of points touching the skin would enable us to form an idea of motion. The same idea might be originated by the sensations of heat and cold, and perhaps of pain.

All the sensations which he had been hitherto considering were referable to the surface of the body and no farther; but the next class, or the *visual* sensations, are always referred *outwards* from the body. The sensation of light, according to physical philosophers, results from the influence produced on the sensitive expansion of the filaments of the optic nerve, by the vibrations of that extremely delicate and subtle atmospheric fluid known as "æther." Actual contact with a heated substance is not necessary for the production of the sensation of warmth; so, likewise, actual contact with a luminous body is not essential to the production of the sensation of light. But the falling of light upon the naked optic nerve itself will produce no sensation. An intermediary apparatus is necessary, and this is supplied by the retina, in the arrangement of the various layers into which, in consequence of recent progress in anatomical knowledge, it is now generally divided. These Professor Huxley demonstrated by a diagram representing a vertical section of the retina. He showed how the ordinary fibres of the optic nerve radiate among the various layers, and at the outermost margin of the retina come into relation with the "rods and cones" forming Jacob's membrane. He explained the analogy between these "rods and cones" and the "spindle-shaped filaments" which form the intermediary apparatus in the organ of smell, and stated that there is reason to believe that there is a connexion between each ultimate fibrilla of the optic nerve and one of these innumerable rod-like and cone-shaped processes. In the organ of smell a similar arrangement is observed, with this difference, that the spindle-shaped bodies come to the surface of the olfactory mucous membrane, while in the eye the ultimate rods and cones are protected from contact with the air. This, however, is merely a difference of detail rather than of principle. If the eye be traced through the series of living beings, it will be found to differ chiefly in the complexity of the superadded apparatus, and at last, in the worms, it will be found to be a simple transparent cell connected with a nerve-filament; and in the eyes of insects are observed numerous facets, under each of which "rods and cones" are directly connected with the optic nerve.

Professor Huxley next described the result on this minute and delicate nervous apparatus of the impingement of a single ray of light of less diameter than one of these rods—such a ray as might be supposed to come from the immense distance of one of the fixed stars. By its action on the nervous "rod" the nerve-change necessary for the production of sensation is originated and transmitted through the optic nerve to the brain, and the sensation of light in a specified direction outside the body is at once produced.

Many have been the attempts to explain this idea of "outness" peculiar to the sense of sight. None of them has ever appeared tenable or satisfactory to Professor Huxley, and, in the present state of our knowledge, it must be considered simply to be a primitive faculty of the sense of sight. It exists even in the dazzling coruscations well known to school-boys under the name of "fireworks," which are produced by a blow on the eye. Pressure with the finger on the inner and lower parts of the closed eye produces the appearance of a ring of light with a dark centre, in a direction outwards and upwards, and entirely outside the body. Professor Huxley explained this as the result probably of the pressure conveyed through the fluid contents of the eyeball to a point in the retina opposite to that at which the finger is applied. Where the pressure is strongest on the sensitive apparatus, it obliterates for the time the action of the nervous "rods"; but on the rods immediately surrounding this particular spot it exerts an irritating effect, causing in them a nerve-change similar to that produced by a ray of light, and the sensation of a luminous ring is produced, while the centre remains dark, in consequence of the inactive condition of the "rods" on which the pressure is strongest.

From the incidence of two rays on the retina we could form the ideas of *co-existence* and *distance*. Three or more rays would communicate to us a knowledge of superficial *form*, and from

a succession of rays we could appreciate *motion*. These ideas, he had shown, could also be originated by the tactile sense; but at the same time Berkeley's paradox is correct—that there is something totally different between the ideas of distance, form, motion, as communicated to our minds by tactile and by visual sensation. In Locke's "Essay on the Understanding" appears a problem, proposed to Locke by Mr. Molyneux, as follows:—Suppose a person born blind to have attained a knowledge of "form" by touch only, and then suppose the power of vision to have been in some way established, could that person recognise by sight the objects with which he had become familiar by touch? Locke replied in the negative, confirming Molyneux's opinion. Such, also, would be the reply of Professor Huxley. How, then, speaking of a round object, do we imply *feeling* round to the touch and *seeming* round to the sight at the same time? This is to be accounted for only by the intense and long-continued association of ideas from our earliest infancy. So, also, are the visual deceptions of paintings to be accounted for. Solidity has two meanings—first, simply *geometrie*, for which at least two surfaces in different directions are essential, and of which sight is capable of communicating the idea; there is next *material* solidity, of which sight can give no notion. The unaided touch, also, cannot originate the idea of material solidity. Touch alone communicates merely an idea of surface; and, in order to get the idea of solidity, we must combine motion with the tactile sense; and then, from the muscular sense, through the association of ideas, we become aware of the varying degrees of material solidity presented by external objects.

In his eighth and concluding lecture, Professor Huxley continued the subject of the laws of vision. He explained how it is that, in accordance with the law by which the cause of a luminous sensation is referred outwards, in the direction of a line perpendicular to the retina at the point on which a ray of light falls, we see objects in their true positions instead of upside down, as is the image of the external object on the retina. It might also, he observed, be asked, as we have no knowledge of what occurs inside the eye—that is, no consciousness of the image on the retina being upside down—why should we see the external object in that position? He next noticed the influence of refraction through a prism in changing the apparent positions of objects. Sight only gives us the *direction* of an object, the exact *position* in that direction being communicated by collateral phenomena through the association of ideas, muscular sense, etc. The difficulty of defining the exact position with one eye closed is well known, and may be exemplified by the attempt to snuff a candle under such circumstances. It may be asked why with two eyes do we see only one object? This is in consequence of perfect coinciding or overlapping of the picture referred outwards from each eye with that from the other eye at the point where the axes of vision converge on the object. We believe that we see the object at the point of convergence of the optic axes, and this is the only explanation which Professor Huxley could give of the power of defining the exact position of an object with two eyes. Professor Huxley next described the action of the stereoscope, on the principle of the overlapping of the pictures formed in each eye. He illustrated this subject by many diagrams roughly drawn on the black-board; but it would be impossible, without similar drawings, to follow him through his remarks.

He noticed at considerable length the aërial or spectral images which may be caused by squinting strongly while gazing at any object. The image in each eye coincides with that in the other at the point at which the axes of the squinting eyes cross, a little in front of the real object; and by squinting very strongly, the impression may for some time be maintained, and the image will follow us as we retreat, and vanish—as all ghosts do—on our approaching it closely.

During the short period which remained, Professor Huxley explained, as far as it was possible to do so, the internal structures of the ear. Sound is not referred outwards or localised, as sight and touch are. We cannot from it form any distinct idea of locality; but we can appreciate the character, intensity, and diversity of sounds in immense variety.

Professor Huxley, in concluding the course, remarked that at its commencement he had told them he never could adhere to a programme. They would now admit that this statement had been verified. He had to omit all notice of locomotion, voice, and speech. His object, however, would have been attained, if he should have succeeded in impressing upon his hearers that in such studies there are two distinct lines of inquiry, the mechanical and the mental. Mechanism cannot explain mental operations; there is however, a connexion between the two. There are two gross blunders against which he would warn them—First, that neuroses and psychoses are *not* connected; second, that it is possible to explain the development of psychoses as a necessary result of antecedent neuroses. The two sets of phenomena differ entirely in *quality;* nevertheless, in some way or other, psychoses *are* secondary on neuroses.

We feel that our notes give such an imperfect outline of Professor Huxley's lectures, that we trust the whole series may shortly be published in an extended form. We consider the fact of immense audiences attending during the winter weeks, to hear Professor Huxley's expositions on metaphysical and physiological subjects, a highly significant indication of the value attached by the public to information on such points, and of the appreciation in which the learned Professor is held by a very large class of educated people. As a sign of educational progress, and, at the same time, of the existence of an educational want, the popularity of such a course of lectures should exert a marked influence on the course and nature of the instruction of the rising generation.

FROM ABROAD.—HYDRARTHROSIS OF THE KNEE IN FRACTURE OF THE FEMUR—OIL BATHS AND SILICATE BANDAGES IN THE TREATMENT OF WOUNDS.

On the occasion of a communication presented by M. Gayet to the Lyons Society of Medicine, "On Hydrarthrosis of the Knee in Fractures of the Femur," M. Ollier observed that he had long observed this circumstance, but did not consider it as peculiar to the knee-joint. Indeed, in the articles "Ankyloses" and "Arthrite," in the "Dictionnaire des Sciences Médicales," now publishing, he has shown that such swellings may affect various joints, the amount of effusion being proportionate to that of the irritation produced by the fracture. Ordinarily, it is serous in its nature, but it may become purulent, notwithstanding its distance from the seat of fracture, when this is the seat of violent inflammation. M. Ollier refers these effusions to the propagation of irritation through the osseous tissue, and has described them under the name of *arthrites par propagation*, or *secondaires*. What led him to take this view of their nature was that he had observed them to be produced experimentally in other traumatic lesions of the bones, which could only operate by transmitted irritation, as after breaking up and evacuating the medulla through perforations made in the bones. He is unable, therefore, to agree with M. Gayet's view, that these effusions are a consequence of obstacles to the return-circulation in the vessels of the medulla. The irritation transmitted through the vascular tissues of the bone gives rise to an increase of the normal secretion of the synovial membrane, and the same thing is observed in some forms of coxalgia. M. Ollier does not consider that the effusion in the knee is here connected with the synovitis of the hip-joint, but with the juxta-epiphysary osteitis of the upper part of the femur, which, in consequence of the relation of the diaphysis with the articulation, soon becomes confounded with the true coxalgia. The propagation of the irritation through the femur seems also, to him, to furnish

the most general explanation of the persistent pains in the knee observed in coxalgia. With M. Gayet, M. Ollier believes that, in some exceptional cases, hydrarthrosis of the knee may assist in completing the diagnosis of fracture of the femur. But this is only an example of what is met with, more or less, in all joints which form the limits of a fractured bone, being more easily recognisable in the knee in consequence of the extent and superficial position of its synovial membrane. M. Ollier has observed it distinctly also in the elbow and wrist after fracture of the ulna, and in the instep after fracture of the shaft of the tibia. If femero-tibial hydrarthrosis is less frequent after fractures of the tibia than after those of the femur, this is because the vessels of the synovial membrane and of the articular soft parts have more numerous anastomoses with those of the femur than with those of the tibia. M. Ollier regards the proposition of removing the effused fluid by means of an aspirator as useless, inasmuch as it is generally absorbed in the course of a few days. In removing it we should transfer a serous into a dry arthritis—that is, we should facilitate the production of anchylosis, or at all events, the stiffness of the joint, which will take place as long as the synovial membrane is distended with fluid.

M. Delore observed that he had often met with this hydrarthrosis of the knee in fracture of the femur, but he does not believe that it should be employed as a sign of such fracture, as it may be produced by a simultaneous contusion or sprain. He cannot admit the theory of transmitted osseous irritation, as it may supervene very rapidly after the fracture. M. Gayet explains the hydrarthrosis by an obstacle to the medullary circulation only; but it would seem more reasonable to admit an impediment in the circulation in the whole substance of the limb, induced by the extra-osseous effusion of blood which takes place in all fractures. M. Delore also refers to the phlyctenæ which are sometimes produced, containing either blood, or more or less coloured serosity, and which, he believes, are due to the same cause as the hydrarthrosis. He is certain that the hydrarthrosis is very seldom dependent upon arthritis, and that very rarely can the pain in the knee, observed in coxalgia, be attributed to arthritis. Very often we are able to squeeze the knee without giving rise to any pain, while this immediately appears if we apply pressure at the hip. Moreover, these pains are found not only in the knee but also in the leg, or even in the foot. In his opinion they are sympathetic. M. Ollier added, in explanation, that these effusions are to be distinguished according to the period when they occur. Those which are produced immediately, or rapidly, are due to distension or spraining of the knee, which accompanies most fractures; while those which come on more slowly are the products of propagated irritation. The former result from laceration of the capsule and synovial membrane, more or less blood being always added to the effusion; the latter, which are simply the result of propagated irritation, consist of a more or less transparent serosity, as in any other case of serous arthritis.

In an article in the last number of the *Gazette Hebdomadaire* M. Vieunois gives an interesting account of the "Isolating Dressing of Wounds" as pursued by M. Ollier of Lyons. He observes that among the various modes of effecting this manner of dressing of late years, that of Lister has excited most attention; but his is so long and complicated that the omission of some detail may easily prevent its succeeding. For this reasen M. Ollier has, during the last two years, treated wounds by means of *oil-baths;* and, where these could not be applied, by keeping the wound and the limb surrounded by dressings constantly soaked in oil—in fact, a continuous oily irrigation. For the continuous water-baths employed by Langenbeck, Valette, and others, M. Ollier believes that oil constitutes a preferable material, as, being lighter than the fluid products of the wound, all putrefied or putrescent matters sink through it to the bottom of the vessel. They no longer remain in contact with the wound, and by traversing a carbolised layer of the oil become disinfected and innocuous during their passage. However abundant such products are, they are removed from the wound by means of the oil, which also forms an efficient protection against the access of the air to the wound. Moreover, the oil is not like water—absorbable by the wound—and thus isolates it without furnishing it with any septic elements. It is sufficiently transparent to render it unnecessary to remove the limb from the bath in order to watch the progress of the wound. The oil may be rendered antiseptic by adding about 50 per cent. of phenic acid. After trying various forms of apparatus, M. Ollier now uses zinc vessels approaching in shape to the limbs which are to be immersed in them during the period of treatment. For amputations of the arm or leg, he employs a yet simpler plan, taking a pig's bladder of sufficient capacity to embrace the stump, and, having filled it with oil, fixing it above the knee or above the shoulder, as the case may be. The stump is thus kept in a continuous bath of oil, which furnishes it with a soft cushion, and may require renewal every three or four days, according to whether the adjustment becomes disturbed or not. When the bath cannot be applied, a layer first of charpie and then of wadding is wound round the limb, and thoroughly saturated with oil, which is also kept frequently, or even continuously, applied.

Although, from this mode of dressing, M. Ollier has derived excellent results, he has, nevertheless, given a full trial to M. Alphonse Guérin's wadding dressing somewhat modified, which is cheaper, and requires less minute attention. The modification consists in adding a silicated bandage over the cotton, in order to prevent motion of the wounded region, this being a powerful antiphlogistic means. He also soaks the first layers of cotton that are applied with carbolised oil, especially when the condition of the tissues causes it to be feared that there may be partial mortification and abundant putrescent secretions. And as, by imbibition of the oil, the cotton loses some of its elasticity, he places over it thick layers of dry cotton, sometimes alternating these with carbolised cotton. The whole is enclosed in the silicated bandage, which is from time to time varnished over with silicate. M. A. Guérin makes no attempt at securing union by the first intention, but M. Ollier frequently effects this by the combination of the cotton and silicate. Of course, this is not attempted when the condition of the wound precludes it, as in secondary amputations, practised amidst more or less infiltrated tissues which are inevitably destined to suppurate. But when amputation has been performed in healthy tissues, and on young subjects, and especially when minor amputations or disarticulations are practised, or when the removal of tissues leaves a wound favourable to union, the attempt should be made. It would certainly not be prudent to count upon complete immediate union after amputations of the leg or the thigh in large Hospitals; but in those of the forearm, supra-malleolar of the leg, the fingers, etc., such union may be often obtained. In all cases a safety-valve is left by introducing into the wound a drain or small tent.

M. Viennois refers to numerous cases in which the practice has succeeded in M. Olliers' hands during several years, and in his own in the late war.

Recruital of the French Army.—France cannot at most furnish more than 300,000 per annum who have attained their 20th year; and of this number 48 per cent. at the very least have to be deducted for exemptions for infirmities, defect of stature, and various other causes. The army can, therefore, receive only 156,000 new soldiers annually, and, if these are kept at service for three years for military instruction, the active army would amount to 468,000 men, whence are to be deducted the percentage for deaths and dismissals for various causes.—*Gazette Hebdomadaire*, Dec. 13.

REVIEWS.

The Physicians' and Surgeons' Visiting List, Diary, Almanac, and Book of Engagements for 1872; upon a plan furnished to the publishers by Francis Seymour Haden, Esq. Twenty-sixth year. London: John Smith and Co., 52, Long-acre.

Punctuality, attention to the right thing at the right time, and all those methods of conducting affairs which are called "business habits," include the practice of making memoranda of daily transactions. But to make memoranda habitually, it is necessary to have some system which shall be simple, involve no expenditure of time, and be intelligible at a glance. These are the qualities which characterise "Smith's Visiting List," of which a long series is in our private desk, and an edition for the coming year lies before us. It enables the Practitioner to make a summary of his day's work with the smallest possible expense of time and trouble, and is suitable for every *grade* of the Profession, from the lordly specialist who lolls in his barouche to the humblest suburban general Practitioner who performs his useful and ill-paid drudgery on foot. The new edition contains a table of doses of various Medicines, selected from Squire's "Companion to the Pharmacopœia," and a page of Post-office information. In other respects it does not deviate from the convenient form, size, and contents of former years.

PROVINCIAL CORRESPONDENCE.

SCOTLAND.

Edinburgh, December 26.

Small-pox has now assumed the proportions of an epidemic in our midst. The number of cases is rapidly on the increase, and the area of infection is gradually enlarging. It is difficult to estimate the number of cases in the town, but a pretty good idea may be formed from the numbers under treatment at Watson's Hospital and the Royal Infirmary. Into the former building, since it was opened a fortnight ago, about 140 cases have been admitted. In the Royal Infirmary there are upwards of thirty cases under treatment. In addition to these there are a number of cases in private practice.

The number of deaths from this cause was twenty last week, against twenty-one the week before. Considering the large number of cases, this is a comparatively small mortality. It is gratifying to learn that the type appears to be milder than in previous severe epidemics of the disease, and that it has not attacked anyone who has been revaccinated. In almost all the severe cases there has been evidence either of imperfect vaccination or of no vaccination at all.

The disease is spreading rapidly over the towns and villages of Scotland, and we hear of it successively in Dundee, Perth, and Aberdeen, not to speak of numerous smaller towns and villages.

The female Medical question is again to the front. Blasts and counter-blasts in the daily newspapers have for some days past indicated the coming struggle. An important decision by the University Court is looked for to-day, and a battle royal is expected on Monday at the meeting of the contributors to the Royal Infirmary.

On Thursday last, the University Court met for the purpose of hearing an appeal by Professors Massen, Bennett, and Calderwood against the following resolution of the Senatus Academicus:—

"The Senatus Academicus represent to the University Court the propriety of rescinding their regulations with reference to the admission of women to Medical education in the University, but without prejudice to the rights and interests of those ladies who have already entered upon a course of study, and without prejudice to the rights of Professors to give separate instruction to ladies in such classes as the University Court may from time to time think fit and approve."

The majority of the senators were represented by Professors Muirhead, Turner, and Lister. After hearing the question argued at considerable length on both sides, the Court adjourned consideration of the appeal till a future day.

It has been satisfactory to observe that, during the last six months, a good deal of attention has been directed to the legal phases of the question.

The Committee for Securing a Complete Medical Education to Women in Edinburgh have obtained a further opinion from the Lord Advocate and Sheriff Fraser in reply to the following question:—Whether, in the first constitution or charter of the University, or in any of the subsequent statutes, there is anything which limits the benefits of the University to male students.

The learned Counsel give a summary of the charter of erection and confirmation of the "College of Edinburgh" by King James VI., dated April 14, 1582, by which "he delegated to, or conferred upon, the Magistrates and Town Council the character of patron and founder of this new seminary of education. The powers of superintendence and control thus conferred upon the Magistrates and Council remained with them till the Act of 1858 was passed, by which the more important powers were transferred to the University Court."

An Act of Parliament, passed in 1621, "which may be considered as the charter of erection of the University," confirmed the powers of the Magistrates and Council to superintend, control, and regulate all matters concerning the internal government of the University.

The Lord Advocate and Sheriff Fraser are "of opinion that, in virtue of the powers they thus possessed, the Magistrates and Town Council could at any time, during their 266 years of University rule, have done what the University Court did in 1869—grant permission to women to be educated at the University."

At the same time they admit that all the regulations which they did pass "proceed on the footing that only male students attended the University; many of them were inapplicable to females, and we cannot," they say, "find any trace of its being contemplated by the patrons that females might be students. And we do not find any evidence of a female having attended the University. Therefore," they continue, "while we are of opinion that the Magistrates and Council had the power to pass a regulation authorising the attendance of women at the University, and to compel the Professors to teach them, yet, as they never passed any such regulation, no women could have insisted upon admission to University education as a legal right prior to 1869. The University Court, by Sec. 12 (2), are now vested with all the powers of internal management and regulation formerly possessed by the Magistrates and Council; they have done what the latter never did, although they lawfully might. They have, by their resolution of November, 1869, given to women the right to demand, equally with male students, admission to the University."

It is thus sufficiently clear that the University Court was not in any way bound to admit the right of females to become students, and it is equally clear that they bear the whole responsibility of the present confused state of the question. If so august a body as the University Court has taken a leap in the dark, and has landed itself in the mire, the most dignified thing it can do surely is not to continue to stand up to the middle or go right over head and ears in the mud, but, guided by the light of law and of the great bulk of public opinion, to retrace their steps at once to better and safer ground.

December 27.

The University Court met yesterday to consider the appeal by Professor Massen, etc., against the resolution of the Senatus Academicus. No decision was arrived at, and the Court is to meet again on Tuesday next for the purpose of disposing of the question.

OBITUARY.

ROBERT ST. JOHN MAYNE.

It is with deep regret we announce the death of this highly esteemed and much respected young Surgeon, which took place on the morning of December 16, at his residence in Rutland-square, Dublin. A few days previously Mr. Mayne was attacked by small-pox, and his illness shortly assumed a very grave character, an uncontrollable hæmorrhagic tendency rapidly becoming developed. It was in the wards of the Meath Hospital, of which institution Mr. Mayne was elected a Surgeon less than two years ago, that he, in the discharge of his duty, became exposed to the contagion of the disease which caused his death. Though he was but 28 years of age, he had already secured the confidence of his colleagues; the respect of his pupils, both at Hospital and in the Carmichael School of Medicine, to which also he was attached as a Lecturer on Anatomy; and the esteem and affection of a widespread circle of friends. In a word, he bade fair, had he been spared, to enjoy a like popularity with his father, the late Dr. Robert Mayne, who fell a victim to typhus fever not many years since. It is not often that such a numerous party of Professional friends and pupils grant themselves the melancholy

satisfaction of accompanying to their last resting-place the earthly remains of one cut down in the spring-time of life, as that which assembled some days ago to do honour to the memory of Robert St. John Mayne. Mr. Mayne was L.K.&Q.C.P. Ire., and L.R.C.S. Ire.

JOHN CHARLES HUNTER,

Of Wilton-place, Belgrave-square, London, was born on August 20, 1799, and died at his residence on December 19 instant, where he had been for above forty years in practice. During the early part of that period he held, among other appointments, that of Inspector of Vaccinators to the National Vaccine Institution, and for some time was resident Medical attendant to the Earl Dudley. He died of a painful and lingering illness, due to emphysema of the lungs and heart disease. He became M.R.C.S. Eng. and L.S.A. in 1821, also L.R.C.P. Lond. in 1863. He was author of the sixty-third volume of the "Family Library." To Sir Thomas Watson, Sir D. Gibb, Drs. Pitman, Harcourt, and other Medical men, are due the best thanks of the family and friends of the deceased, for their great kindness and attention to him.

MEDICAL NEWS.

Apothecaries' Hall.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, December 21, 1871:—

Beardsley, Arthur Arnold, Grange, Lancashire.
Chilcot, James, Southsea.
Cowley, John Selwyn, Upton-on-Severn.
Griffiths, William Edwin, Kensington.
Lungley, Frank, Lewes, Sussex.
Parkes, William Edmund, Handsworth.
Richards, John Edward, Ruabon, North Wales.
Sayer, Charles Wathen, Sutton, Somerset.
Searle, George Clement, Tewkesbury.
Sergeant, Edward, Leeds.
Sharpe, George Metcalfe, Hunslet, Leeds.
Wallis, Edward Darby, Bodmin, Cornwall.
Wilkinson, Joseph Cradock, Spalding.
Willis, George, Sohum, Cambridge.

As Assistants in Compounding and Dispensing Medicines—

Anthony, David, Cardiff.
Bannerman, Charles Alexander, Preston.
Hensby, Robert Place, Mildenhall.
Perks, Samuel Woodhouse, Hitchen.

The following gentlemen also on the same day passed their first Professional examination :—

Atkins, Francis Thomas, Guy's Hospital.
Barrow, Frederick, King's College.
Bromley, John Maddan, University College.
Bryan, Clement Frederick, Guy's Hospital.
Crouch, Ernest John, Charing-cross Hospital.
Keer, George Edwardes, Guy's Hospital.
Nash, William Gunner, Guy's Hospital.
O'Brien, James Octavius, Guy's Hospital.
Page, Herbert Markant, Birmingham Hospital.
Saer, David Protheroe, St. Mary's Hospital.
Tayler, Herbert Price, Guy's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Bloxam, J. Astley, F.R.C.S.E.—Surgeon to the Great Northern Hospital.

Davies, D. A., M.R.C.S., etc.—Resident Clinical Assistant to the Hospital for Consumption and Diseases of the Chest, Brompton, *vice* Dr. Swan, whose period of office has expired.

Harvey, Henay, M.B. Edin., L.R.C.S.E.—Senior House-Surgeon to the Southern Hospital, Liverpool, *vice* Dr. William Little, resigned.

Humphreys, J. H., M.R.C.S. and L.S.A., late Assistant-Physician to the Middlesex Hospital—House-Surgeon to the Royal Surrey County Hospital.

Inglis, Andrew, M.D., F.R.C.S. Edin., Professor of Midwifery at the Aberdeen University—To the Aberdeen Dispensary, *vice* Mr. Robert Smith, Surgeon, deceased.

Lewis, Lewis, L.R.C.P. Lond., M.R.C.S.E.—Resident Medical Officer to St. Pancras and Northern Dispensary.

Roche, E. B., M.R.C.S.—Surgical Registrar to King's College Hospital.

Rodger, James, M.B., C.M., M.A.—To the Aberdeen Dispensary, *vice* Dr. Angus Fraser, resigned in consequence of his appointment to the Infirmary.

Walker, T. Shadford, Surgeon to the Liverpool Eye and Ear Infirmary—Lecturer on Ophthalmic Medicine and Surgery at the Liverpool Royal Infirmary School of Medicine.

MILITARY APPOINTMENTS.

38th Foot.—Staff Surgeon Charles Henry Browne to be Surgeon, *vice* Watkin Sandon Whylock, M.D., appointed to the Staff.

48th Foot.—Staff Surgeon-Major Francis Holton, M.B., to be Surgeon, *vice* William Robert Burkitt, appointed to the Staff. Staff Assistant-Surgeon James Maybury Beamish, M.D., to be Assistant-Surgeon, *vice* John Gordon Grant, appointed to the Staff.

80th Foot.—Staff Surgeon David Chambers M'Fall to be Surgeon, *vice* Ralph Robert Scott, appointed to the Staff.

Medical Department.—Surgeon-Major Arthur Rudge, from the Royal Artillery, to be Staff Surgeon-Major, *vice* Staff Surgeon John Harrison Robothan, appointed to the 63rd Foot; Surgeon Watkin Sandon Whylock, M.D., from the 38th Foot, to be Staff Surgeon, *vice* Charles Henry Browne, appointed to the 38th Foot; Surgeon Ralph Robert Scott, from the 80th Foot, to be Staff Surgeon, *vice* David Chambers McFall, appointed to the 80th Foot; Surgeon William Robert Burkitt, from the 48th Foot, to be Staff Surgeon, *vice* Staff Surgeon-Major Francis Holton, M.B., appointed to the 48th Foot; Staff Assistant-Surgeon David Chambers McFall to be Staff Surgeon, *vice* Staff Surgeon-Major Robert Thomas Buckle, M.D., placed upon half-pay; Assistant-Surgeon John Gordon Grant, from the 48th Foot, to be Staff Assiatant-Surgeon, *vice* James Maybury Beamish, M.D., appointed to the 48th Foot; Apothecary to the Forces John McIntosh has been permitted to retire upon half-pay.

BIRTHS.

Buzzard.—On December 20, at 56, Grosvenor-street, the wife of Thomas Buzzard, M.D., of a son.

Clover.—On December 23, at 3, Cavendish-place, Cavendish-square, the wife of J. T. Clover, F.R.C.S., of a son.

Dalton.—On December 19, at Llandudno, the wife of Thomas Dalton, M.D., of twins.

Jepson.—On December 26, at the residence of her father, W. S. Burton, Esq., Inner-circle, Regent's-park, the wife of Octavius Jepson, M.D., Stone, Dartford, of a daughter, prematurely.

Macnab.—On December 23, at Bury St. Edmunds, the wife of Robert Macnab, M.D., F.R.C.S. Edin., of a daughter.

Roberts.—On December 22, at Avenue House, Peckham-rye, the wife of J. C. Roberts, M.D., of a son.

Vernon.—On December 26, at 44a, Wimpole-street, Cavendish-square, the wife of Bowater John Vernon, F.R.C.S., prematurely, of a son.

Watson.—On December 24, at 7, Henrietta-street, Cavendish-square, the wife of W. Spencer Watson, F.R.C.S., of a daughter.

MARRIAGE.

Brabazon—Pierpoint.—On December 19, at the parish church, Warrington, William Philip Brabazon, M.D., of Lymm, to Eleanor, elder daughter of Benjamin Pierpoint, Esq., of St. Austin's, Warrington, J.P.

DEATHS.

Armstrong, Alfred, M.D., of Lower Norwood, of diphtheria, on December 18.

Clay, Thomas Fazdeaick, L.R.C.P., M.R.C.S., L.S.A., at his residence, Stratford, Essex, on Christmas-day, aged 62.

Grace, Henay Mills, Surgeon, at his residence, Dorvend, Bristol, after a brief illness, of inflammation of the lungs, on December 23, aged 63.

Hale, Mary Eugenia, the beloved child of Robert Douglas Hale, M.D., at 16, Queen Anne-street, Cavendish-square, on December 19, aged 18.

Heckford, Nathaniel, M.R.C.S., M.D., founder of the East London Hospital for Children, Ratcliff-cross, after a lingering illness, at Ramsgate, on December 14.

Hofmann, James, eldest son of Professor Hofmann, of Berlin, at Berlin, of diphtheria, on December 17, aged 22.

Hunter, John Charles, L.R.C.P. Lond., M.R.C.S. Eng., and L.S.A., at his residence, 30, Wilton-place, Belgrave-square, S.W., after a long illness, on December 19, aged 72.

Maddox, Amelia, wife of R. L. Maddox, M.D., at Woolstone, Southampton, Hants, on December 26.

Miller, Patrick, M.D., at The Grove, Exeter, on December 24, in his 90th year.

Oak, Catherine Mary, relict of Thomas Oak, M.D. Lond., at her residence, Blackheath-park, on Christmas-day, aged 82.

Richardson, Edward, M.D., late of New-road, Commercial-road, at Hastings, of pneumonia, on December 16, in his 48th year.

Traill, Mary, the wife of William Traill, M.D., at 78, Grosvenor-road, Highbury, on December 24.

Vernon, Emmeline Agnes, the dearly loved wife of Bowater John Vernon, F.R.C.S., at 44a, Wimpole-street, Cavendish-square, on December 26, aged 22.

Willmott, Thomas, M.R.C.S., late of Chester-street, Belgrave-square, at Penrith, Australia, on October 15, aged 55.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

Axbridge Union.—Medical Officer for the Eleventh District. Candidates must possess the qualifications prescribed by the General Orders of the Local Government Board. Applications and testimonials to Mr. A. Watson Miller, Clerk, on or before January 8, 1872. Election the following day.

Caernarvonshire and Anglesey Infiamary.—House-Surgeon. Must be a registered Medical Practitioner. Applications and testimonials to the Secretary, Infirmary, Bangor, on or before January 2, 1872.

East Sussex, Hastings, and St. Leonard's Infiamary.—The appointments of Physician and Assistant-Physician are vacant. The qualifications required are as follows:—Doctor or Bachelor of Medicine of Great Britain or Ireland, or Fellows or Members of the Royal College of Physicians of London, Edinburgh, or Dublin. Applications and testimonials to the Secretary, on or before January 1, 1872.

Holloway and North Islington Dispensary.—Qualified Assistant to the Resident Medical Officers. Applications and testimonials to the Treasurer, at the Dispensary, Palmer-place, Holloway, N., on or before December 30.

JERSEY GENERAL DISPENSARY.—Medical Officer. Further particulars of the Rev. P. A. Le Feuvre, Oakwalk, Jersey. The election takes place early in January, and the duties will commence on February 1, 1872.

LANCASTER (COUNTY OF) LUNATIC ASYLUM.—Medical Officer. Must be duly qualified and registered. Applications and testimonials to Mr. F. C. Hulton, Clerk to the Committee, on or before January 8, 1872.

MIDDLESEX HOSPITAL.—Resident Obstetric Assistant. Must possess at least one legal qualification. Further particulars of the Secretary, to whom applications are to be sent, on or before December 30.

MIDDLESEX HOSPITAL.—Resident Physician's Assistant. Candidates must be legally qualified to practise. Applications and testimonials to the Secretary, on or before 11 o'clock a.m., on Saturday, December 30.

MIDDLESEX COUNTY ASYLUM, HANWELL.—Medical Superintendent of the Female Department. Candidates must possess both Medical and Surgical qualifications. Copies of testimonials to Mr. R. W. Partridge, Clerk to the Visitors, on or before January 6, 1872.

NEWARK HOSPITAL AND DISPENSARY.—Resident Medical Officer and Secretary. Medical and Surgical qualifications required. Applications and testimonials to the Secretary, on or before January 1, 1872. Election on January 9. Attendance of candidates required at twelve o'clock.

NORTH WALES COUNTIES LUNATIC ASYLUM, DENBIGH.—Assistant Medical Officer. Qualifications to practise must be produced. A knowledge of the Welsh language is necessary. Applications and testimonials to Mr. John Robinson, on or before January 10, 1872.

ROCHDALE INFIRMARY AND DISPENSARY.—Medical Officer, who must possess a qualification to practise, and be unmarried. Applications and testimonials to Mr. Lee, Secretary, Lord-street, Rochdale, on or before January 4, 1872.

ROYAL CORNWALL INFIRMARY.—House-Surgeon, Secretary, and Dispenser. Must be a Member of the College of Surgeons of London, Dublin, Edinburgh, or Glasgow; or a Licentiate of the Society of Apothecaries. Applications and testimonials to the Treasurer, Mr. R. Tweedy, Truro, on or before January 20, 1872.

STOCKWELL FEVER HOSPITAL.—Resident Medical Superintendent. Medical and Surgical qualifications required. Forms for applications may be obtained of the Clerk to the Board of the Metropolitan Asylum District, 37, Norfolk-street, Strand, on or before January 1, 1872.

SUDBURY UNION.—Medical Officer for the First District. Candidates must possess the qualifications prescribed by the General Orders of the Local Government Board. Applications and testimonials to Mr. Henry C. Canham, Clerk, on or before January 4, 1872. Election the same day.

SUNDERLAND INFIRMARY.—Junior House-Surgeon. Medical and Surgical qualifications required. Applications and testimonials to the Senior House-Surgeon, on or before January 20, 1872.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1861.

RESIGNATIONS.

Sudbury Union.—The First District is vacant; area 12,651; population 3195; salary £55 per annum.

APPOINTMENTS.

Greenwich Union.—Charles Alhany Wade, M.R.C.S.E., L.R.C.P. Edin. to the Greenwich Central District.

Honiton Union.—Frederick A. O'Meara, L.R.C.S. Edin., L.R.C.P. Edin., L.H.A. Dub., to the Eighth District.

Keighley Union.—James Crocker, M.R.C.S., L.S.A., to the Bingley District.

ROYAL MICROSCOPICAL SOCIETY.—The next meeting of the Society will be held on Wednesday, January 3, at eight o'clock precisely, when the following papers will be read:—"Fossils of the Coal Measures," by Dr. Carruthers, F.R.S.; and "Fermentation and its Results," by Mr. James Bell.

THE next competitive examination of candidates for Assistant-Surgeons in the Royal Navy will be held in February next.

IT is stated that Mr. Stansfeld has in hand a Bill for Amending and Consolidating the various Public Health Acts, and that the measure will be introduced next Session.

THE Liverpool Health Committee at their last monthly meeting resolved to defer the appointment of a public analyst *sine die*.

THE Hackney District Board of Works last week decided to increase Dr. Tripe's (their Medical Officer) salary from £350 to £450 a year. Dr. Tripe's services fully justify the extra remuneration awarded to him.

WE regret to announce the death from a stroke of paralysis of Dr. Blythe, Professor of Chemistry in Queen's College, Cork.

THE University of Zurich numbers at present 310 students, of whom 168 are Medical.

SIEGE OF STRASBURG.—M. Poncet, one of the Medical Officers, supplies the following list of losses on the part of the military engaged:—There were 270 of the garrison killed, 177 died from their wounds in the ambulances, 268 from their wounds in the Hospitals, and 146 from internal disease—total, 861 deaths. Thus, there were but 715 deaths from wounds, which is but a small proportion, considering that the siege lasted forty-five days. Of course, many civilians were killed and wounded also by the shots directed upon the town itself. —*Gaz. des Hôp.*, Dec. 16.

SEVERAL bad cases of typhoid fever are reported from Denbigh. Wells, into which the surface drainage is permitted to percolate, are said by Medical Practitioners to be the origin of the outbreak.

ACADÉMIE DE MÉDECINE DE PARIS.—M. Barth has been elected President, and M. Depaul Vice-President, for the ensuing year. M. Jules Béclard has been re-elected Annual Secretary, and M. Dubois (d'Amiens) retains his post of Perpetual Secretary. This latter gentleman has been absent, both from the Academy and from Paris, during the last two years in consequence of an attack of cerebral hæmorrhage, which has been followed by hemiplegia. His general health continues pretty good, and his intellectual powers are scarcely impaired, although he has considerable difficulty of speech.—*Union Méd.*, December 21.

DEATH OF DR. HELLER.—Dr. Johann Florian Heller died, after a short illness, on November 21. He was 58 years of age, and had for some years past suffered from disease of the heart. He was Director of the Pathologico-Chemical Institute, and teacher of Pathological Chemistry in the Vienna University, besides having extensive employment as a Government expert. The progress of pathological chemistry has been greatly forwarded by his efforts; he was, indeed, the first who placed this branch of Medical science in its proper position in Austria, and his work in this direction has obtained general recognition both at home and abroad. Clinical examination of the urine has obtained its present important position, both in Hospitals and in private practice, in great part through his exertions. Latterly he has been so much employed in official duties as to be unable to publish any work, but he has continued to inspire younger inquirers with some of his own energy. His well known periodical, "*Archiv f. Pathol.-Chemie und Mikroscopie*," was continued during ten years.—*Wiener Med. Zeit.*, Nov. 26.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

Mr. C. H. W. Parkinson (*Wimborne*).—The cases are of grave importance, and shall be noticed fully next week.

W. C. S., Cheltenham.—The National Vaccine Establishment was formed by the Government in 1808. Sydenham, in his "Methodus Curandi Febres, etc.," published for the first time in 1666, wrote a chapter small-pox. It is said that Sydenham doubted the contagious nature small-pox. Huxham's "Treatise on Fever" appeared in 1750.

What next?—A Lincoln newspaper, of considerable circulation and reputation, contains the following startling announcement. We congratulate Dr. O'Neill on the "exclusive" honour conferred upon him.

"On the 12th inst., Dr. O'Neill, of Lincoln, had the honour conferred upon him of being elected a Fellow of the Royal Medical and Chirurgical Society of London. Dr. O'Neill is the only Physician in the county on whom this distinction has been conferred. The Royal Medical and Chirurgical Society obtained a charter from William IV., and is instituted for the cultivation and promotion of Medicine and Surgery, and the branches of science connected therewith; and its Fellows are the *élite* of the Medical Profession of the three kingdoms, and of the Continent."

Medicus writes:—"I enclose an advertisement for the Editor. It may be a matter of doubt which is most injured—the individual, or the Profession to which he belongs."—

"SPECIAL NOTICE.—Medical and Surgical Consultations gratis every Friday from two to three o'clock.—W. Jacobs has great pleasure in announcing that Dr. H. Bourguignon, Belfort House, Horsell, M.D. Paris, L.R.C.P. Lond., Laureate of the Institute of France, Knight of the Legion of Honour, Member of several Medical Societies, Author of several works on the Nervous System, Skin Diseases, &c., will attend at the Medical Hall, High-street, Woking Station, every Friday, from two to three o'clock, and give Medical and Surgical consultations gratis."

Burglar.—The Commissioner of Police of the metropolis has circulated a paper cautioning householders against the most common modes by which thieves effect their entrance into dwelling-houses. The plates of the ordinary window-fastenings should be made to overlap each other, and every sash should have a self-acting stop at each side. Entrance is often effected through the front door, by means of skeleton keys, and we may observe that a pound is never better spent than in a good genuine "Bramah" front-door lock—bearing in mind that most of the locks sold as "Bramahs" are sham, and that any key will open any one of them. Medical men are particularly liable to depredations by persons professing to come as patients. A contrivance to hinder these gentry from getting out—or, at all events, from getting out without touching a spring, which rings a bell—would put a check on the rascals. There is another kind of robber whom Dupuytren used to circumvent by means of a bell. When a patient who ought to pay left his consulting-room without bestowing the customary honorarium, he touched a particular bell, whereupon the porter, before opening the front door, said—"I believe Monsieur has forgotten his fee," and thus forced the would-be *bilker* to be honest.

Paris.—A paper by Professor Gubler, of Paris, on the "Therapeutic Uses of Cod-liver Oil," will, we hope, appear in an early number.

Pills of Chloral, Chlorate of Potass, Sulphur, etc.—Will the sender of these favour us with his address?

*** Miller's bunion-spring, mentioned in our issue of November 25, is to be had at 29, Leicester-square, W.C.

Llan.—"You pay your money, and you take your choice." We believe that the articles of higher quality may be obtained of that firm by anyone who selects them and pays the price, and that they will equal the average sold by other firms. On the other hand, the lower qualities must, as a matter of physical necessity, be subject to greater variation, and must be at the risk of the buyer.

Ty.—Podophyllin gripes more than some purgatives; but not more than senna and scammony, if administered in efficient dose, and alone. It is one of the earliest feats of Medicine to combine various purgatives, so that, like glasses of different qualities in one lens, each shall correct the aberrations of the others, and it is equally an old plan to "obtund their acrimony" with aromatics and anodynes. Doubtless, also, much depends on the solubility of a purgative, for it is conceivable that, without the most minute sub-division, any purgative shall gripe. No one has yet explained why aloes is so much more potent when given in substance than in solution. As for action on the liver, scammony, colocynth, and senna all bring down dark greenish-yellow motions. The smallness of the dose is the charm of podophyllin. As an anti-syphilitic, we know it not.

COMMUNICATIONS have been received from—

Dr. Young; Mr. Spencer Smith; Mr. J. H. Edwardes; Mr. F. Whitburn; Mr. E. B. Roche; Dr. Brakenridge; Dr. Playfair; Mr. C. Hunter; Mr. W. W. Reeves; Mr. C. H. W. Parrinson; Dr. Jago; Dr. Macnab; Mr. W. Thomson; Dr. Lionel S. Beale; Dr. Clifford Allbutt; Dr. J. R. Hardie; Dr. Beverley; Dr. Aldis; Mr. Rainey; Mr. T. S. Walker; Mr. Audland; Mr. L. Lewis; Dr. Wilmot; Dr. Portea Smith

BOOKS RECEIVED—

Nouveau Dictionnaire de Médecine et de Chirurgie—Can Chloroform be Used to Facilitate Robbery? By Dr. S. Rogers (New York)—Sir Henry Holland's Recollections of Past Life—McCurtry on the Duty of Medical Men in relation to the Temperance Movement—Bennett on Intra-thoracic Growths—Chemists' and Druggists' Diary, 1872.

PERIODICALS AND NEWSPAPERS RECEIVED—

Pharmaceutical Journal—The Salopian—Lincoln Journal—Melbourne Argus—Medical Temperance Journal, January.

APPOINTMENTS FOR THE WEEK.

December 30. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; King's, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Royal Institution, 3 p.m. Prof. Tyndall, LL.D., F.R.S., "Ice, Water, Vapour, and Air." (Lecture II.)

January 1, 1872. *Monday*.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

2. *Tuesday*.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Royal Institution, 3 p.m. Prof. Tyndall, LL.D., F.R.S., "Ice, Water, Vapour, and Air." (Lecture III.)

Pathological Society, 8 p.m. Annual Meeting, Election of Officers, etc. The following Specimens will be exhibited:—Mr. Sibley (for Mr. Blakewell), "Photograph, from a case of Leprosy." Dr. Dickinson (for Mr. Bradley, of Manchester), "Deformity of Pharynx." Mr. Hulke (for Mr. Hickman), "Pea in Lachrymal Canal." Dr. Galton, "Perforations of Bowel in Typhoid." Mr. Arthur Norton, "Malignant Growth of Femur." Dr. Kelly, "Ulcer of Bronchus opening into Pulmonary Artery." Dr. Clifford Allbutt, "Sections of Medulla in Hydrophobia; Syphilitic Disease of Encephalic Arterioles." Dr. Leared, "Renal Calculi of Cystic Oxide." Mr. Lawson, "Sequel of a case of Blood-cyst."

3. *Wednesday*.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 2 p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

4. *Thursday*.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; West London, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Royal Institution, 3 p.m. Prof. Tyndall, LL.D., F.R.S., "Ice, Water, Vapour, and Air." (Lecture IV.)

5. *Friday*.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

VITAL STATISTICS OF LONDON.

Week ending Saturday, December 23, 1871.

BIRTHS.

Births of Boys, 1106; Girls, 1058; Total, 2164.
Average of 10 corresponding weeks, 1861-70, 2023·5.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	960	983	1943
Average of the ten years 1861-70	723·2	706·9	1430·1
Average corrected to increased population	...	...	1573
Deaths of people aged 90 and upwards	...	...	...

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561189	8	14	3	1	14	...	4	3	1
North ...	751668	89	41	8	...	28	1	5	...	4
Central ...	333887	...	3	2	...	12	2	3	1	2
East	638928	12	23	8	...	27	...	10	5	2
South	966132	31	21	7	2	36	3	10	8	4
Total	8251804	90	102	28	3	117	6	32	12	13

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·805 in.
Mean temperature	41·6°
Highest point of thermometer	48·8°
Lowest point of thermometer	35·3°
Mean dew-point temperature	39·4°
General direction of wind	S.W.
Whole amount of rain in the week	0·51 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, December 23, 1871, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1871.*	Persons to an Acre. (1871.)	Births Registered during the week ending Dec. 23.	Deaths Registered during the week ending Dec. 23.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3263872	41·8	2164	1948	48·8	35·3	41·6	5·33	0·51	1·30
Portsmouth ...	113450	11·9	69	38	49·8	28·0	40·9	4·94	0·91	2·31
Norwich	80533	10·8	51	67	48·5	33·0	40·1	4·50	0·35	0·89
Bristol	183298	39·1	122	102	...	...	...	...	...	...
Wolverhampton ...	68476	20·2	48	80	49·7	29·5	40·1	4·50	0·68	1·60
Birmingham ...	344980	44·1	263	160	50·2	31·0	40·8	4·88	0·53	1·35
Leicester	95882	30·0	88	56	49·7	29·5	39·8	4·33	0·45	1·14
Nottingham ...	86929	43·6	63	92	49·4	28·2	39·8	4·33	0·63	1·60
Liverpool	494649	96·8	359	295	53·6	32·1	42·7	5·95	0·34	0·86
Manchester ...	356099	79·4	255	210	51·3	31·0	40·7	4·83	0·73	1·85
Salford	125422	34·3	98	81	53·0	30·8	40·8	4·88	0·79	2·01
Bradford	146987	22·3	103	73	53·7	31·4	42·4	5·78	0·38	0·84
Leeds	260657	12·1	231	129	53·0	30·0	42·0	5·56	0·70	1·78
Sheffield	241507	10·6	178	198	52·5	27·2	40·1	4·50	0·77	1·96
Hull	122266	34·3	92	60	49·0	26·0	38·0	3·33	0·70	1·78
Sunderland ...	98797	29·9	85	85	...	...	...	...	...	...
Newcastle-on-Tyne	128677	24·1	78	73	...	...	...	...	...	...
Edinburgh	201728	45·6	149	142	54·0	24·0	39·7	4·28	0·90	2·29
Glasgow	479227	94·7	354	286	53·6	26·8	40·1	4·50	1·80	4·57
Dublin (City, etc.)	310565	31·9	191	197	55·5	33·2	44·6	7·00	0·26	0·66
Total of 20 Towns in United Kingd'm	7204001	33·8	5041	4367	55·5	24·0	40·8	4·88	0·67	1·70

At the Royal Observatory, Greenwich, the mean reading of the barometer in the week was 29·81 in. The highest was 30·22 in. at the beginning of the week, and the lowest 29·59 in. on Thursday evening.

* The figures in this column are the unrevised numbers enumerated in April last, raised to the middle of the year by adding 1-40th of the rate of increase which prevailed between 1861 and 1871. As the population of Dublin and its suburbs showed a decline between the Censuses of 1861 and 1871, the enumerated number in April last has been inserted for that city, the population being assumed to be now stationary.

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